Appendix to:
EFSA (European Food Safety Authority), 2018. Conclusion on the peer review of the pesticide risk assessment of the active substance dimethenamid-P. EFSA Journal 2018;16(3):5211, 169 pp. doi:10.2903/j.efsa.2018.5211
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Appendix A – List of end points for the active substance and the representative formulation

Section 1 Identity, Physical and Chemical Properties, Details of Uses, Further Information, Methods of Analysis

Identity, Physical and Chemical Properties, Details of Uses, Further Information (Regulation (EU) N° 283/2013, Annex Part A, points 1.3 and 3.2)

| Active substance (ISO Common Name) | Dimethenamid-P |
|-----------------------------------|----------------|
| Function (e.g. fungicide)         | Herbicide      |
| Rapporteur Member State           | Germany        |
| Co-rapporteur Member State        | Bulgaria       |

Identity (Regulation (EU) N° 283/2013, Annex Part A, point 1)

| Chemical name (IUPAC) | (S)-2-chloro-N-(2,4-dimethyl-3-thienyl)-N-(2-methoxy-1-methylthyl)acetamide |
|-----------------------|--------------------------------------------------------------------------|
| Chemical name (CA)    | 2-chloro-N-(2,4-dimethyl-3-thienyl)-N-[(1S)-2-methoxy-1-methylthyl]-acetamide |
| CIPAC No              | 638                                                                       |
| CAS No                | 163515-14-8                                                               |
| EC No (EINECS or ELINCS) | -                                                                           |
| FAO Specification (including year of publication) | –                                                                         |
| Minimum purity of the active substance as manufactured | 930 g/kg                                                                 |
| Identity of relevant impurities (of toxicological, ecotoxicological and/or environmental concern) in the active substance as manufactured | 1,1,1,2-Tetrachloroethane (TCE): < 1.0 g/kg |
| Molecular formula     | C$_{12}$H$_{18}$ClNO$_2$S                                                 |
| Molar mass            | 275.8 g/mol                                                               |
| Structural formula    | ![Structural formula](image)                                              |
**Physical and chemical properties (Regulation (EU) No 283/2013, Annex Part A, point 2)**

| Property                                      | Value                                                                 | Reference
|-----------------------------------------------|-----------------------------------------------------------------------|------------|
| Melting point (state purity)                  | Solidification point below –50 °C                                     | (99.4 %)   |
| Boiling point (state purity)                  | No boiling point detected until 280 °C                               | (99.4 %)   |
| Temperature of decomposition (state purity)   | 101 °C (slow decomposition)                                           | (94.0 %)   |
| Appearance (state purity)                     | colour: clear yellow brown (at room temperature)                     |            |
|                                               | physical state: liquid                                                |            |
|                                               | odour: faint aromatic                                                 | (99.4 %)   |
| Vapour pressure (state temperature, state purity) | 3.47 x 10⁻³ Pa at 20 °C (98.6 %)                                      |            |
|                                               | 2.51 x 10⁻³ Pa at 25 °C (98.6 %)                                      |            |
| Henry’s law constant                          | 4.8 x 10⁻⁴ Pa m³ mol⁻¹ (25 °C)                                        |            |
| Solubility in water (state temperature, state purity and pH) | 1499 mg/L at 25 °C (pH 6.16) (98.6 %)                                 |            |
|                                               | There is no dissociation in water therefore pH dependence on solubility is not applicable |          |
| Solubility in organic solvents (state temperature, state purity) | heptane 310 – 330 (all in g/L of solvent)                            |            |
|                                               | hexane 310 – 330 at 20 °C (96.4 %)                                    |            |
|                                               | toluene > 1000                                                        |            |
|                                               | dichloromethane > 1000                                                |            |
|                                               | methanol > 1000                                                       |            |
|                                               | acetone > 1000                                                        |            |
|                                               | ethyl acetate > 1000                                                  |            |
|                                               | acetonitrile > 1000                                                   |            |
| Surface tension (state concentration and temperature, state purity) | 52.0 mN/m (0.1 % (w/w), 20 °C)                                        | (99.4 %)   |
|                                               | 50.7 mN/m (0.5 % (w/w), 20 °C)                                        |            |
| Partition coefficient (state temperature, pH and purity) | log P<sub>OW</sub> = 1.89 at 25 °C (94.45 %)                           |            |
|                                               | Effect of pH was not investigated since there is no dissociation in water. |          |
| Dissociation constant (state purity)          | UV spectrophotometric investigation gave no indication of dissociation of dimethenamid taking place between pH of 1 and 11 at 25 °C (98.0 %) |           |
| UV/VIS absorption (max.) incl. ε (state purity, pH) | λ<sub>max</sub> = 236 nm; ε = 7560 L mol⁻¹ cm⁻¹ (99.4 %)               |            |
|                                               | ε = 31.6 L mol⁻¹ cm⁻¹ at 297.5 nm decreasing to ε = 1.2 L mol⁻¹ cm⁻¹ at 400.0 nm |          |
| Flammability and self-heating (state purity)  | Flammability not required. TAS is a liquid and does not evolve highly flammable gases. Auto-ignition temperature: 395 °C (97.9 %) |           |
| Flash point (state purity)                    | 79 °C (93.5 %)                                                       |            |
| Explosive properties (state purity)           | The result of the explosive impact test indicated that technical dimethenamid is not an impact explosive sensitive compound. (96.73 %) |           |
| Oxidising properties (state purity)           | not oxidising                                                        |            |
List of representative uses evaluated - BAS 656 12 H

| Crop and/or situation (a) | Member State or Country | Product name | F G or I (b) | Pests or Group of pests controlled (c) | Preparation | Application | Application rate per treatment | PHI (days) | Remarks |
|--------------------------|-------------------------|--------------|--------------|----------------------------------------|-------------|------------|-------------------------------|-----------|---------|
| Maize - ZEAMX            | EU                      | BAS 656 12 H | F            | Annual monocotyled onous and dicotyledonous weeds | EC 720      | spraying   | BBCH 00-09 | 144-864 | 100-400 | 576-864 | n.a. | Range 0.8-1.2 L/ha possible not safe - risk assessment for non-target terrestrial plants not finalised |
| Maize - ZEAMX            | EU                      | BAS 656 12 H | F            | Annual monocotyled onous and dicotyledonous weeds | EC 720      | spraying   | BBCH 10-16 | 144-864 | 100-400 | 576-864 | n.a. | Range 0.8-1.2 L/ha possible not safe - risk to mammals, risk assessment for non-target terrestrial plants not finalised |
| Sugar Maize - ZEAMS      | EU                      | BAS 656 12 H | F            | Annual monocotyled onous and dicotyledono | EC 720      | spraying   | BBCH 00-09 | 144-864 | 100-400 | 576-864 | n.a. | Range 0.8-1.2 L/ha possible not safe - |
| Crop and/or situation (a) | Member State or Country | Product name | FG or I (b) | Pests or Group of pests controlled (c) | Preparation | Application | Application rate per treatment | PHI (days) (m) | Remarks |
|--------------------------|------------------------|--------------|-------------|---------------------------------------|-------------|------------|-------------------------------|----------------|---------|
| Sugar Maize - ZEAMS      | EU                     | BAS 656 12 H | F           | us weeds                              | EC 720      | spraying   | BBCH 10-16                    | 144-864        | 100-400 | 576-864 | n.a. | Range 0.8-1.2 L/ha possible not safe - risk assessment for non-target terrestrial plants not finalised |
| Soybean - GLXMA          | EU                     | BAS 656 12 H | F           | Annual monocotyled onous and dicotyledono us weeds | EC 720      | spraying   | BBCH 00-09                    | 144-864        | 100-400 | 576-864 | n.a. | Range 0.8-1.2 L/ha possible not safe - risk assessment for non-target terrestrial plants not finalised |
### Crop and/or situation (a)

**Crop**
- Sunflower - HELAN
- Sugar Beet - BEAVA
- Sugar Beet - BEAVA

### Member State or Country
- EU

### Product name
- BAS 656 12 H

### Pests or Group of pests controlled (c)
- Annual monocotyledonous and dicotyledonous weeds

### Preparation
- Type: EC
- Conc. of as (i), g/L: 720
- Method: spraying
- Growth stage & season (j): BBCH 00-09
- Number min/max (k): 1
- Interval between applications (min): -

### Application rate per treatment
- g as/ha min-max (l): 144-864
- Water L/ha min-max: 100-400
- g as/ha min-max (l): 576-864

### PHI (days) (m)
- Sunflower - HELAN: n.a.
- Sugar Beet - BEAVA: n.a.
- Sugar Beet - BEAVA: n.a.

### Remarks
- Range 0.8-1.2 L/ha possible not safe - risk assessment for non-target terrestrial plants not finalised
- Range 0.8-1.2 L/ha possible not safe - risk assessment for non-target terrestrial plants not finalised
| Crop and/or situation (a) | Member State or Country | Product name | F G or I (b) | Pests or Group of pests controlled (c) | Preparation | Application | Application rate per treatment | PHI (days) (m) | Remarks |
|--------------------------|-------------------------|--------------|-------------|----------------------------------------|-------------|-------------|---------------------------------|---------------|---------|
| Sugar Beet - BEAVA       | EU                      | BAS 656 12 H | F           | Annual monocotyled monos and dicotylenous weeds | EC          | 720         | spraying BBCH 12-18              | 54-504        | 100-400 | 216-504 | Max rate 720 g a.s./year Splitting: 2 applications BBCH 12 – BBCH 15: 0.3-0.6 L product/ha From BBCH 16: 0.3-0.7 L product/ha not safe - risk assessment for non-target terrestrial plants not finalised |
| Sugar Beet - BEAVA       | EU                      | BAS 656 12 H | F           | Annual monocotyled monos and dicotylenous weeds | EC          | 720         | spraying BBCH 12-18              | 54-288        | 100-400 | 216-288 | Max rate 720 g a.s./year Splitting: 3 applications 0.3-0.4 L product/ha not safe - risk assessment for non-target terrestrial plants not finalised |
### Table: Use of Dimethenamid-P

| Crop and/or situation<br>(a) | Member State or Country | Product name | F<br>G or I<br>(b) | Pests or Group of pests controlled<br>(c) | Preparation<br>(d-f) | Application<br>(j) | Application rate per treatment<br>(l) | PHI (days)<br>(m) | Remarks<br> |
|-------------------------------|-------------------------|--------------|---------------------|--------------------------------|---------------------|-----------------|-------------------------|----------------|-------------------|
|                               |                         |              |                     |                                |                     |                 |                          |                |                   |

- **Crop and/or situation**: (a) For crops, the EU and Codex classifications (both) should be taken into account; where relevant, the use situation should be described (e.g. fumigation of a structure).
- **Member State or Country**: (b) Outdoor or field use (F), greenhouse application (G) or indoor application (I)
- **Product name**: (c) e.g. biting and sucking insects, soil born insects, foliar fungi, weeds
- **Preparation**: (d-f) e.g. wettable powder (WP), emulsifiable concentrate (EC), granule (GR)
- **Application**: (j) Growth stage at last treatment (BBCH Monograph, Growth Stages of Plants, 1997, Blackwell, ISBN 3-8263-3152-4), including where relevant, information on season at time of application
- **Application rate per treatment**: (l) The values should be given in g or kg whatever gives the more manageable number (e.g. 200 kg/ha instead of 200 000 g/ha or 12.5 g/ha instead of 0.0125 kg/ha)
- **PHI (days)**: (m) PHI - minimum pre-harvest interval

* For uses where the column "Remarks" is marked in grey further consideration is necessary.

**Uses should be crossed out when the notifier no longer supports this use(s).**

- **(a)** For crops, the EU and Codex classifications (both) should be taken into account; where relevant, the use situation should be described (e.g. fumigation of a structure).
- **(b)** Outdoor or field use (F), greenhouse application (G) or indoor application (I)
- **(c)** e.g. biting and sucking insects, soil born insects, foliar fungi, weeds
- **(d)** e.g. wettable powder (WP), emulsifiable concentrate (EC), granule (GR)
- **(e)** GCPF Codes - GIFAP Technical Monograph No 2, 1989
- **(f)** All abbreviations used must be explained
- **(g)** Method, e.g. high volume spraying, low volume spraying, spreading, dusting, drench
- **(h)** Kind, e.g. overall, broadcast, aerial spraying, row, individual plant, between the plant- type of equipment used must be indicated
- **(i)** g/kg or g/L. Normally the rate should be given for the active substance (according to ISO) and not for the variant in order to compare the rate for same active substances used in different variants (e.g. fluoroxypyr). **In certain cases, where only one variant is synthesised, it is more appropriate to give the rate for the variant (e.g. benthiavalicarb-isopropyl).**
- **(j)** Growth stage at last treatment (BBCH Monograph, Growth Stages of Plants, 1997, Blackwell, ISBN 3-8263-3152-4), including where relevant, information on season at time of application
- **(k)** Indicate the minimum and maximum number of application possible under practical conditions of use
- **(l)** The values should be given in g or kg whatever gives the more manageable number (e.g. 200 kg/ha instead of 200 000 g/ha or 12.5 g/ha instead of 0.0125 kg/ha
- **(m)** PHI - minimum pre-harvest interval
List of representative uses evaluated - BAS 830 01 H

| Crop and/or situation | Member State or Country | Product name | F G or I | Pests or Group of pests controlled | Preparation | Application | Application rate per treatment | PHI (days) | Remarks |
|-----------------------|-------------------------|--------------|----------|------------------------------------|-------------|------------|------------------------------|-----------|---------|
| Winter Oilseed Rape - BRSNW | EU | BAS 830 01 H | F | Annual monocotyledonous and dicotyledonous weeds | SE 333 (167 quinmerac) | spraying BBCH 00-09 | 1 - 66.5-500 (quinmerac: 33.5-250) 100-400 (quinmerac: 134-250) n.a. | Range 0.8-1.5 L/ha possible |
| Winter Oilseed Rape - BRSNW | EU | BAS 830 01 H | F | Annual monocotyledonous and dicotyledonous weeds | SE 333 (167 quinmerac) | spraying BBCH 10-18 | 1 - 66.5-500 (quinmerac: 33.5-250) 100-400 (quinmerac: 134-250) n.a. | Range 0.8-1.5 L/ha possible |

* For uses where the column "Remarks" is marked in grey further consideration is necessary. Uses should be crossed out when the notifier no longer supports this use(s).
(a) For crops, the EU and Codex classifications (both) should be taken into account; where relevant, the use situation should be described (e.g. fumigation of a structure)
(b) Outdoor or field use (F), greenhouse application (G) or indoor application (I)
(c) e.g. biting and suckling insects, soil born insects, foliar fungi, weeds
(d) e.g. wettable powder (WP), emulsifiable concentrate (EC), granule (GR)
(e) GCPF Codes - GIFAP Technical Monograph No 2, 1989
(f) All abbreviations used must be explained
(g) Method, e.g. high volume spraying, low volume spraying, spreading, dusting, drench
(h) Kind, e.g. overall, broadcast, aerial spraying, row, individual plant, between the plant-type of equipment used must be indicated
(i) g/kg or g/L. Normally the rate should be given for the active substance (according to ISO) and not for the variant in order to compare the rate for same active substances used in different variants (e.g. fluoroxypyr). In certain cases, where only one variant is synthesised, it is more appropriate to give the rate for the variant (e.g. benthiavalicarb-isopropyl).
(j) Growth stage at last treatment (BBCH Monograph, Growth Stages of Plants, 1997, Blackwell, ISBN 3-8263-3152-4), including where relevant, information on season at time of application
(k) Indicate the minimum and maximum number of application possible under practical conditions of use
(l) The values should be given in g or kg whatever gives the more manageable number (e.g. 200 kg/ha instead of 200 000 g/ha or 12.5 g/ha instead of 0.0125 kg/ha
(m) PHI - minimum pre-harvest interval
Summary of additional intended uses for which MRL applications have been made, that in addition to the uses above, have also been considered in the consumer risk assessment (name of active substance or the respective variant)

Regulation (EC) N° 1107/2009 Article 8.1(g)

Important note: efficacy, environmental risk and risk to humans by exposure other than via their diet have not been assessed for these uses

| Crop and/or situation (a) | Member State or Country | Product name | F G or I (b) | Pests or Group of pests controlled (c) | Preparation | Application | Application rate per treatment | PHI (days) (m) | Remarks |
|--------------------------|-------------------------|--------------|--------------|----------------------------------------|-------------|-------------|--------------------------------|----------------|---------|
| Tree nuts                | DE, AT                  | Spectrum     | F            | Annual grasses & Dicotyledonous weeds  | EC 720 g/L  | Spraying SP | BBCH 00-55                      | 1 N/A           | 0.864-0.216 100-400 0.864 F From 1st year after planting, apply between rows with screen (PRNDA, PRNDU, CSNSS, CYLAV, CYLMA, IUGRE – almonds, chestnut, hazelnut, lambert nut, walnut) |
| Pome fruit               | DE, AT, BE, BG, HR, CZ, FR, GR, HU, IT, LU, NL, PT, RO, SI, ES | Spectrum     | F            | Annual monocotyledonous and dicotyledonous weeds | EC 720 g/L  | Spraying SP | BBCH 00-76                      | 1 N/A           | 0.864-0.216 100-400 0.864 F apply under trees (MABSD, PYUCO, CYDOB, ABOME, EIOJA, MSPGE – Apple, Pear, Quince, Black chokeberry, Loquat, Medlar) |
| Pome fruit               | DE, AT, BE, BG, HR, CZ, FR, GR, HU, IT, LU, NL, PT, RO, SI, ES | Spectrum     | F            | Annual monocotyledonous and dicotyledonous weeds | EC 720 g/L  | Spraying SP | BBCH 91-97                      | 1 N/A           | 0.864-0.216 100-400 0.864 F apply under trees (MABSD, PYUCO, CYDOB, ABOME, EIOJA, MSPGE – Apple, Pear, Quince, Black chokeberry, Loquat, Medlar) |
| Stone fruit              | DE, AT, BE, BG, HR, CZ, FR, GR, HU, IT, LU, NL, PT, RO, SI, ES | Spectrum     | F            | Annual monocotyledonous and dicotyledonous weeds | EC 720 g/L  | Spraying SP | BBCH 00-76                      | 1 N/A           | 0.864-0.216 100-400 0.864 F apply under trees (PRNAR, PRNAV, PRNCE, PRNPS, PRPNP, PRNDD, PRNDI, PRNDS – apricots, peaches, cherries, plums and others) |
| Stone fruit              | DE, AT,                | Spectrum     | F            | Annual                                   | EC 720 g/L  | Spraying BBCH 91-97               | 1 N/A           | 0.864-100-400 0.864 F apply under trees |
| Crop and/or situation (a) | Member State or Country | Product name | FG or I (b) | Pests or Group of pests controlled (c) | Preparation | Application | Application rate per treatment | PHI (days) (m) | Remarks |
|---------------------------|-------------------------|--------------|-------------|----------------------------------------|-------------|-------------|--------------------------------|---------------|---------|
| Sugar beet, fodder beet, red beet | DE, AT, BE, BG, HR, CZ, FR, GR, HU, IT, LU, NL, PT, RO, SI, ES | Spectrum | F | monocotyledonous and dicotyledonous weeds | EC 720 g/L Spraying | BBCH 00-09 | SP | 1 | N/A | 0.216 | (PRNAR, PRNAV, PRNCE, PRNPS, PRPNP, PRNDD, PRND, PRNDS – apricots, peaches, cherries, plums and others) |
| Sugar beet, fodder beet, red beet | DE, AT, BE, BG, HR, CZ, FR, GR, HU, IT, LU, NL, PT, RO, SI, ES | Spectrum | F | Annual monocotyledonous and dicotyledonous weeds | EC 720 g/L Spraying | BBCH 12-18 | SP | 3 (5) | N/A | 0.720-0.180 | 100-400 | 0.720 | F | max of 720 g as/ha, season can be applied with max 3 times in split applications |
| Horse radish, turnip, swede | DE, AT, BE, BG, HR, CZ, FR, GR, HU, IT, LU, NL, PT, RO, SI, ES | Spectrum | F | Annual monocotyledonous and dicotyledonous weeds | EC 720 g/L Spraying | BBCH 12-16 | SP | 1 | N/A | 0.504-0.126 | 100-400 | 0.504 | F | Pre emergence, intended minor use  
"F" = PHI is covered by the time period remaining between application and harvest |
| Swedes and turnip | DE, PL, BE, NL | Spring-bok | F | Weeds (general) | EC 200 g/L Spraying | BBCH 00-09 | SP | 1 | N/A | 0.500-0.100 | 100-500 | 0.500 | F | 1.2 L/ha in pre-EM  
Or 0.4 L/ha in pre-EM  
+ 2+ 0.4 L/ha in pot-EM |
| Spring, Welsh onions & similar | DE, AT, BE, BG, HR, CZ, FR, GR | Spectrum | F | Annual monocotyledonous and dicotyledonous weeds | EC 720 g/L Spraying | BBCH 12-14 | SP | 1 | N/A | 0.864-0.216 | 100-400 | 0.864 | F |
| Crop and/or situation (a) | Member State or Country | Product name | Pests or Group of pests controlled (c) | Preparation | Application | Application rate per treatment | PHI (days) (m) | Remarks |
|--------------------------|-------------------------|--------------|----------------------------------------|-------------|-------------|-------------------------------|---------------|---------|
| HU, IT, LU, NL, PT, RO, SI, ES | Pumpkin hybr., cucumber, zucchini, patisson, melon (edible and inedible peel) | Spectrum | Annual monocotyle-donous and dicotyledo-nous weeds | EC 720 g/L | Spraying SP | BBCH 12-16 | 1 | N/A | 0.850-0.212 | 100-400 | 0.864 | F |
| DE, AT, BE, BG, HR, CZ | Oil pumpkin | Spectrum | Annual monocotyle-donous and dicotyledo-nous weeds | EC 720 g/L | Spraying SP | Pre-planting | 1 | N/A | 0.864-0.216 | 100-400 | 0.864 | F |
| DE, AT | Oil pumpkin | Spectrum | Annual monocotyle-donous and dicotyledo-nous weeds | EC 720 g/L | Spraying SP | BBCH 00-09 | 1 | N/A | 0.864-0.216 | 100-400 | 0.864 | F |
| DE, AT, BE, BG, HR, CZ, FR, GR, HU, IT, LU, NL, PT, RO, SI, ES | Sweetcorn | Spectrum | Annual monocotyle-donous and dicotyledo-nous weeds | EC 720 g/L | Spraying SP | BBCH 00-09 | 1 | N/A | 0.864-0.216 | 100-400 | 0.864 | F | Range 0.8-1.2 l/ha possible |
| DE, AT, BE, BG, HR, CZ, FR, GR, HU, IT, LU, NL, PT, RO, SI, ES | Sweetcorn | Spectrum | Annual monocotyle-donous and dicotyledo-nous weeds | EC 720 g/L | Spraying SP | BBCH 10-16 | 1 | N/A | 0.864-0.216 | 100-400 | 0.864 | F | Range 0.8-1.2 l/ha possible |
| DE, AT | Flowering | Spring- | Weeds | EC 200 g/L | Spraying | BBCH 10-16 | 1 | N/A | 0.500- | 100-500 | 0.300- | F | Post transplanting, not earlier |
| Crop and/or situation (a) | Member State or Country | Product name | F G or I (b) | Pests or Group of pests controlled (c) | Preparation | Application | Application rate per treatment | PHI (days) (m) | Remarks |
|--------------------------|-------------------------|--------------|-------------|---------------------------------------|-------------|------------|-----------------------------|----------------|---------|
| brassica (Cauliflower, Broccoli) transplanted | BE, CZ, EE, FR, GR, HU, IT, LV, LT, LU, PL, ES, UK | bok (general) | | | | | | than 5-7 days after transplanting |
| Brussels sprouts | DE, AT, BE, BG, HR, CZ | Spectrum | F | Annual monocotyledonous and dicotyledonous weeds | EC 720 g/L | Spraying SP | BBCH 12-16 | 1 N/A | 0.720-0.180 | 100-400 | 0.720 90 | seeded crop and planted crop, after taking roots |
| Head cabbage (White, Red, Savoy, Spring cabbage) transplanted | DE, AT, BE, CZ, EE, FR, GR, HU, IT, LV, LT, LU, PL, ES, UK | Spring-bok (general) | | | | | | |
| Head cabbage (White, Red, Savoy, Spring cabbage) transplanted | DE, AT, BE, CZ, EE, FR, GR, HU, IT, LV, LT, LU, PL, ES, UK | Spring-bok (general) | | | | | | |
| Head cabbage (White, Red, Savoy, Spring cabbage) (seed plant) direct drilled | DE, AT, BE, CZ, EE, FR, GR, HU, IT, LV, LT, LU, PL, ES, UK | Spring-bok (general) | | | | | | |
| Leafy brassica transplanted | DE, AT, BE, CZ, EE, FR, | Spring-bok (general) | | | | | | |

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| Crop and/or situation (a) | Member State or Country | Product name | F G or I (b) | Pests or Group of pests controlled (c) | Preparation | Application | Application rate per treatment | PHI (days) (m) | Remarks |
|--------------------------|--------------------------|--------------|-------------|----------------------------------------|-------------|------------|-------------------------------|-------------|---------|
| Leafy brassica transplanted | DE, AT, BE, CZ, EE, FR, GR, HU, IT, LV, LT, LU, PL, ES, UK | Spring-bok | F | Weeds (general) | EC 200 g/L | Spraying SP | BBCH 10-18 | 1 | N/A | 0.500-0.100 | 100-500 | 0.500 | F | Post transplanting, not earlier than 5-7 days after transplanting |
| Green beans with pods | DE, AT, BE, BG, CZ, HU, NL, PL, RO, SK, SE, GB | Wing P | F | Annual weeds | EC 212.5 g/L | Spray | BBCH 00-09 (February-April) | 1 | N/A | 0.425-0.213 | 200-400 | 0.850 | F |
| Green beans with pods | DE, AT, BE, BG, CZ, HU, NL, PL, RO, SK, SE, GB | Wing P | F | Annual monocotyledonous and dicotyledonous weeds | EC 720 g/L | Spraying SP | BBCH 00-09 | 1 | N/A | 0.720-0.180 | 100-400 | 0.720 | F |
| Green beans with pods | DE, AT, BE, BG, CZ, HU, NL, PL, RO, SK, SE, GB | Wing P | F | Annual monocotyledonous and dicotyledonous weeds | EC 720 g/L | Spraying SP | BBCH 11-14 | 1 | N/A | 0.720-0.180 | 100-400 | 0.720 | F |
| Climbing fresh beans with pods | DE, AT, BE, BG, CZ, HU, NL, PL, RO, SK, SE, GB | Wing P | F | Annual weeds | EC 212.5 g/L | Spray | BBCH 00-09 or BBCH 10-14 (February-May) | 1 | N/A | 0.425-0.213 | 200-400 | 0.850 | F |
| Climbing fresh beans with pods | DE, AT, BE, BG, CZ, HU, | Wing P | F | Annual monocotyledonous and dicotyledonous weeds | EC 720 g/L | Spraying SP | BBCH 00-09 | 1 | N/A | 0.720-0.180 | 100-400 | 0.720 | F |
| Crop and/or situation (a) | Member State or Country | Product name | F G or I (b) | Pests or Group of pests controlled (c) | Preparation | Application | Application rate per treatment | PHI (days) (m) | Remarks |
|--------------------------|-------------------------|--------------|-------------|-------------------------------------|-------------|-------------|---------------------------------|---------------|---------|
| Climbing fresh beans with pods | NL, PL, RO, SK, SE, GB | dicotyledonous weeds | Wing P | Annual monocotyledonous and dicotyledonous weeds | EC 720 g/L | Spraying SP | BBCH 11-14 | 1 N/A | 0.720-0.180 | 100-400 | 0.720 F |
| Leek transplanted | DE, AT, BE, BG, CZ, HU, NL, PL, RO, SK, SE, GB | Weeds (general) | Spring-bok | Annual monocotyledonous and dicotyledonous weeds | EC 200 g/L | Spraying SP | BBCH 10-18 | 1 N/A | 0.500-0.100 | 100-500 | 0.500 F |
| Leek transplanted | DE, PL, BE, NL, FR, IT, ES, PT, GR | Weeds (general) | Spring-bok | Annual monocotyledonous and dicotyledonous weeds | EC 200 g/L | Spraying SP | BBCH 10-18 | 1 N/A | 0.500-0.060 | 100-500 | 0.300-0.500 F |
| Leek | ES | Spectrum | F | Annual monocotyledonous and dicotyledonous weeds | EC 720 g/L | Spraying SP | BBCH 00-09 | 1 N/A | 0.864-0.216 | 100-400 | 0.864 F |
| Leek | FR, GR, IT, ES | Spectrum | F | Annual monocotyledonous and dicotyledonous weeds | EC 720 g/L | Spraying SP | BBCH 10-18 | 1 N/A | 0.864-0.216 | 100-400 | 0.864 F |
| Vicia beans (dry) | DE, AT, BE, BG, CZ, HU, NL, PL, RO, SK, SE, GB | Annual weeds | Wing P | Annual monocotyledonous and dicotyledonous weeds | EC 212.5 g/L | Spray | BBCH 00-09 or BBCH 10-14 (February-May) | 1 N/A | 0.425-0.213 | 200-400 | 0.850 F |
| Vicia beans (dry) | DE, AT, BE, BG, CZ, HU, NL, PL, RO, SK, SE, GB | Annual monocotyledonous and dicotyledonous weeds | Wing P | Annual monocotyledonous and dicotyledonous weeds | EC 720 g/L | Spraying SP | BBCH 00-09 | 1 N/A | 0.720-0.180 | 100-400 | 0.720 F |
| Vicia beans (dry) | DE, AT, BE, BG, CZ, HU, NL, PL, RO, SK, SE, GB | Annual monocotyledonous and dicotyledonous weeds | Wing P | Annual monocotyledonous and dicotyledonous weeds | EC 720 g/L | Spraying SP | BBCH 11-14 | 1 N/A | 0.720-0.180 | 100-400 | 0.720 F | Submitted as minor crop |
| Crop and/or situation (a) | Member State or Country | Product name | FG or I (b) | Pests or Group of pests controlled (c) | Preparation | Application | Application rate per treatment | PHI (days) (m) | Remarks |
|--------------------------|------------------------|--------------|-------------|---------------------------------------|-------------|------------|-------------------------------|---------------|---------|
|                          |                        |              |             |                                       | Type        | Conc. a.s. (i) | method kind (f-h) | range of growth stages & season (j) | number min-max (k) | Interval between application (min) | kg a.s./L min-max (l) | Water L/ha min-max | kg a.s./ha min-max (l) | |
|                          |                        |              |             |                                       | (d-f)       | (i)        | (f-h)          | (i)                          | (k)               | (l)                      | (m)          | (n)                | (o)          | |
|                          |                        |              |             |                                       | Spray       | BBCH 00-09 | 00-09 (#February-March) | 1 | N/A | 0.425-0.213 | 200-400 | 0.850 | F | Minor uses |
|                          |                        |              |             |                                       | Spray       | BBCH 00-09 | 00-09 (#February-March) | 1 | N/A | 0.964-0.216 | 100-400 | 0.864 | F | Range 0.8-1.2 L/ha possible |
|                          |                        |              |             |                                       | Spray       | BBCH 00-09 | 00-18 (#February-March) | 1 | N/A | 0.850-0.125 | 100-400 | 0.500 | F | |
|                          |                        |              |             |                                       | Spray       | BBCH 00-09 | 00-09 (#February-March) | 1 | N/A | 0.864-0.216 | 100-400 | 0.500 | F | |
|                          |                        |              |             |                                       | Spray       | BBCH 00-09 | 00-09 (#February-March) | 1 | N/A | 0.850-0.125 | 100-400 | 0.500 | F | |
|                          |                        |              |             |                                       | Spray       | BBCH 00-09 | 00-09 (#February-March) | 1 | N/A | 0.850-0.125 | 100-400 | 0.500 | F | Post emergence “f” = PHI is covered by the time remaining between application and harvest |

**Crop and/or situation (a):**
- NL, PL, RO, SK, SE, GB
- DE, AT, BE, BG, CZ, HU, NL, PL, RO, SK, SE, GB
- DE, AT, BE, BG, HR, CZ, FR, GR, HU, IT, LU, NL, PT, RO, SI, ES
- DE, AT, BE, BG, HR, CZ, SK, HU, PL, BG, RO, UA, BY, RU, SE, LT, EE, LV
- DE, AT, BE, BG, HR, CZ, EE, FR, HU, LV, LT

**Member State or Country:**
- NL, PL, RO, SK, SE, GB
- DE, AT, BE, BG, CZ, HU, NL, PL, RO, SK, SE, GB
- DE, AT, BE, BG, HR, CZ, FR, GR, HU, IT, LU, NL, PT, RO, SI, ES
- DE, AT, BE, BG, HR, CZ, SK, HU, PL, BG, RO, UA, BY, RU, SE, LT, EE, LV

**Product name:**
- dicotyledonous weeds
- Wing P
- Spectrum
- BAS 830 01
- BAS 830 01
- Spring-bok

**Preparation:**
- Spray
- BBCH 00-09
- BBCH 00-09
- BBCH 00-09
- BBCH 00-09

**Application:**
- BBCH 00-09 (#February-March)
- BBCH 00-09 (#February-March)
- BBCH 00-18 (#February-March)
- BBCH 00-09 (#February-March)
- BBCH 00-09 (#February-March)

**Application rate per treatment:**
- 0.425-0.213
- 0.964-0.216
- 0.850-0.125
- 0.864-0.216
- 0.850-0.125

**PHI (days) (m):**
- 1
- N/A
- 1
- N/A
- 1

**Remarks:**
- Minor uses
- Range 0.8-1.2 L/ha possible
- Post emergence “f” = PHI is covered by the time remaining between application and harvest
| Crop and/or situation (a) | Member State or Country | Product name | F Gö r I (b) | Pests or Group of pests controlled (c) | Preparation | Application | Application rate per treatment | PHI (days) (m) | Remarks |
|--------------------------|-------------------------|--------------|--------------|---------------------------------|-------------|------------|--------------------------------|----------------|---------|
| Oilseed rape             | NL, PL, RO, SI, SK, SE, GB | Spring-bok   | F            | Weeds (general)                 | EC 200 g/L | Spraying SP | BBCH 10-18 | 1 | N/A | 0.500-0.100 | 100-500 | 0.500 F | Post emergence “f” = PHI is covered by the time remaining between application and harvest |
| Soybean                  | CZ, HU, RO, HR, BG, DE, AT | Spectrum     | F            | Annual monocotyledonous and dicotyledonous weeds | EC 720 g/L | Spraying SP | BBCH 00-09 | 1 | N/A | 0.864-0.216 | 100-400 | 0.864 F | Range 0.8-1.2 L/ha possible |
| Maize                    | FR, NL, CZ, HU, RO, BE, BG, DE, AT, GR, IT, PT, ES, SI, HR, SK | Wing P       | F            | Annual weeds                    | EC 212.5 g/L | Spray | BBCH 00-09 or BBCH 10-16 (April-May) | 1 | N/A | 0.425-0.213 | 200-400 | 0.850 F |
| Maize                    | FR, NL, CZ, HU, RO, BE, BG, DE, AT, GR, IT, PT, ES, SI, HR, SK | Spectrum     | F            | Annual monocotyledonous and dicotyledonous weeds | EC 720 g/L | Spraying SP | BBCH 10-16 | 1 | N/A | 0.864-0.216 | 100-400 | 0.864 F | Range 0.8-1.2 L/ha possible |
| Maize                    | DE, AT, BE, BG, HR, CZ, FR, GR, HU, IT, LU, NL | Spectrum     | F            | Annual monocotyledonous and dicotyledonous weeds | EC 720 g/L | Spraying SP | BBCH 10-16 | 1 | N/A | 0.864-0.216 | 100-400 | 0.864 F | Range 0.8-1.2 L/ha possible |

**Note:** The table provides information on the pesticide risk assessment of the active substance dimethenamid-P for different crops and situations, including details on the product name, pest control, application methods, and PHI (post-application interval).
| Crop and/or situation (a) | Member State or Country | Product name | F G or I (b) | Pests or Group of pests controlled (c) | Preparation | Application | Application rate per treatment | PHI (days) (m) | Remarks |
|--------------------------|-------------------------|--------------|--------------|----------------------------------------|-------------|-------------|-------------------------------|---------------|---------|
| PT, RO, SI, ES           | DE, AT, BE, BG, HR, CZ, FR, GR, HU, IT, LU, NL, PT, RO, SI, ES | Spectrum | F | Annual monocotyle-donous and dicotyle-donous weeds | EC 720 g/L Spraying SP | BBCH 13-16 | 1 N/A | 0.864-0.216 | 100-400 | 0.864 | F |
| Millet                   | DE, AT, BE, BG, HR, CZ, FR, GR, HU, IT, LU, NL, PT, RO, SI, ES | Spectrum | F | Annual monocotyle-donous and dicotyle-donous weeds | EC 720 g/L Spraying SP | BBCH 13-16 | 1 N/A | 0.864-0.216 | 100-400 | 0.864 | F |
| Sorghum                  | DE, AT, BE, BG, HR, CZ, FR, GR, HU, IT, LU, NL, PT, RO, SI, ES | Spectrum | F | Annual monocotyle-donous and dicotyle-donous weeds | EC 720 g/L Spraying SP | BBCH 13-16 | 1 N/A | 0.864-0.216 | 100-400 | 0.864 | F |
| Witloof, Chicory root    | FR                      | Spectrum | F | Annual grasses & Dicotyle-donous weeds | EC 720 g/L Spraying SP | BBCH 12-18 | 3 (5-10) N/A | 0.33-1.0 | 100-400 | 0.720 | 90 | Split Application 3x0.33 L/ha |

(a) For crops, the EU and Codex classifications (both) should be taken into account; where relevant, the use situation should be described (e.g. fumigation of a structure)
(b) Outdoor or field use (F), greenhouse application (G) or indoor application (I)
(c) e.g. biting and sucking insects, soil born insects, foliar fungi, weeds
(d) e.g. wettable powder (WP), emulsifiable concentrate (EC), granule (GR)
(e) CropLife International Technical Monograph no 2, 6th Edition. Revised May 2008. Catalogue of pesticide
(f) All abbreviations used must be explained
(g) Method, e.g. high volume spraying, low volume spraying, spreading, dusting, drench
(h) Kind, e.g. overall, broadcast, aerial spraying, row, individual plant, between the plant- type of equipment used must be indicated
(i) g/kg or g/L. Normally the rate should be given for the active substance (according to ISO) and not for the variant in order to compare the rate for same active substances used in different variants (e.g. fluoroxypr). In certain cases, where only one variant is synthesised, it is more appropriate to give the rate for the variant (e.g. benthiavalicarb-isopropyl).
(j) Growth stage range from first to last treatment (BBCH Monograph, Growth Stages of Plants, 1997, Blackwell, ISBN 3-8263-3152-4), including where relevant, information on season at time of application
(k) Indicate the minimum and maximum number of applications possible under practical conditions of use
(l) The values should be given in g or kg whatever gives the more manageable number (e.g. 200 kg/ha instead of 200 000 g/ha or 12.5 g/ha instead of 0.0125 kg/ha
(m) PHI - minimum pre-harvest interval

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Further information, Efficacy

Effectiveness (Regulation (EU) No 284/2013, Annex Part A, point 6.2)

Effectiveness of dimethenamid-P is considered sufficient using the max. recommended field rates as outlined in the GAP-tables.

Adverse effects on field crops (Regulation (EU) No 284/2013, Annex Part A, point 6.4)

Dimethenamid-P is selective in all tested maize, sunflower, soya bean, sugarbeet varieties. Based on the long term experiences the risk of phytotoxicity is considered as acceptable.

Observations on other undesirable or unintended side-effects (Regulation (EU) No 284/2013, Annex Part A, point 6.5)

Highly sensitive plants such as lettuce may be affected in pre-emergence applications up to a maximum distance of 5 m from the treated field, if no drift reducing application technique is used. However, dimethenamid-P can be considered as sufficiently safe for adjacent crops.

Groundwater metabolites: Screening for biological activity (SANCO/221/2000-rev.10-final Step 3 a Stage 1)

| Activity against target organism | M656 PH 023 | M656 PH 030 | M656 PH 031 | M656 PH 032 | M656 PH 043 | M656 PH 045 |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Not finalised                    | Not finalised | Not finalised | Not finalised | Not finalised | Not finalised |

| Activity against target organism | M656PH 047 | M656PH 054 | M656H 055 | M656PH 027 Na salt | M656PH 062 ethyl-ester |
|----------------------------------|-------------|-------------|-------------|---------------------|------------------------|
| Not finalised                    | Not finalised | Not finalised | Not finalised | Not finalised      | Not finalised          |
Methods of Analysis

Analytical methods for the active substance (Regulation (EU) N° 283/2013, Annex Part A, point 4.1 and Regulation (EU) N° 284/2013, Annex Part A, point 5.2)

| Technical a.s. (analytical technique) | HPLC-UV |
|-------------------------------------|---------|
| Impurities in technical a.s. (analytical technique) | GC-FID |
| Plant protection product (analytical technique) | HPLC-UV |

Analytical methods for residues (Regulation (EU) N° 283/2013, Annex Part A, point 4.2 & point 7.4.2)

Residue definitions for monitoring purposes

| Category | Definition |
|----------|------------|
| Food of plant origin | Dimethenamid (sum of stereoisomers) + metabolites M26 and M30, expressed as dimethenamid-P |
| Food of animal origin | Sum of metabolites M26 and M30, expressed as dimethenamid-P |
| Soil | Sum of stereoisomers of dimethenamid |
| Sediment | Not required |
| Water | Sum of stereoisomers of dimethenamid |
| Air | Sum of stereoisomers of dimethenamid |
| Body fluids and tissues | Open |

Monitoring/Enforcement methods

Food/feed of plant origin (analytical technique and LOQ for methods for monitoring purposes)

| Method | LOQ for analyte for dimethenamid-P + M30 (analyte for dimethenamid-P + M30) |
|--------|---------------------------------------------------------------------------|
| LC-MS/MS | 0.01 mg/kg per analyte for dimethenamid-P + M30 (maize whole plant, maize seed, sugar beet leaves, sugar beet roots, rape seed, strawberries, onions, dried beans), confirmatory method and ILV (strawberries, dried beans, rape seed, maize forage, maize seed) are available. |
| LC-MS/MS (QuEChERS) | 0.01 mg/kg per analyte for dimethenamid-P + M30 (grape, lettuce, barley grain), confirmatory method is available |

Food/feed of animal origin (analytical technique and LOQ for methods for monitoring purposes)

| Method | LOQ for analyte for M26 and M30 (analyte for M26 and M30) |
|--------|----------------------------------------------------------|
| LC-MS/MS | 0.01 mg/kg for M26 and M30 (muscle, kidney, liver, fat, milk, egg), confirmatory method and ILV (muscle, kidney, liver, fat, egg) is available. |

Soil (analytical technique and LOQ)

| Method | LOQ for sum of stereoisomers of dimethenamid |
|--------|---------------------------------------------|
| LC-MS/MS | 0.005 mg/kg sum of stereoisomers of dimethenamid, confirmatory method is available. |

Water (analytical technique and LOQ)

| Method | LOQ for sum of stereoisomers of dimethenamid in drinking water and surface water, confirmatory method is available, ILV for drinking water is available. |
|--------|----------------------------------------------------------------------------------------------------------------------------------|
| LC-MS/MS | 0.03 μg/L sum of stereoisomers of dimethenamid in drinking water and surface water, confirmatory method is available, ILV for drinking water is available. |
### Air (analytical technique and LOQ)

| LOQ                          |
|------------------------------|
| LC-MS/MS, LOQ = 1.5 µg/m³ sum of stereoisomers of dimethenamid, confirmatory method is available. |

### Body fluids and tissues (analytical technique and LOQ)

| LOQ                          |
|------------------------------|
| Body fluids and tissues: LC-MS/MS, LOQ = 0.01 mg/kg for sum of stereoisomers of dimethenamid, confirmatory method is available. |
| Open                         |

### Classification and labelling with regard to physical and chemical data (Regulation (EU) No 283/2013, Annex Part A, point 10)

#### Substance

| Substances                  |
|-----------------------------|
| Dimethenamid-P              |
| Harmonised classification   |
| None                        |

#### Peer review proposal for harmonised classification according to Regulation (EC) No 1272/2008:

- None

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1 Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. OJ L 353, 31.12.2008, 1-1355.

2 It should be noted that harmonised classification and labelling is formally proposed and decided in accordance with Regulation (EC) No 1272/2008.
Impact on Human and Animal Health

The toxicological dossier of dimethenamid-P is based on studies performed on both dimethenamid as racemic mixture (50:50 R/S isomers) and on the S-isomer alone that has been shown to retain the herbicidal activity. Comparison of acute, short term toxicity, genotoxicity and developmental toxicity performed on both substances has determined that they present a similar toxicological profile at equivalent dose levels and that all available studies for the racemic mixture could be considered in the hazard identification and characterisation of dimethenamid-P; */** refer to studies performed on dimethenamid-P and dimethenamid racemate respectively.

Absorption, distribution, metabolism and excretion (toxicokinetics) (Regulation (EU) N° 283/2013, Annex Part A, point 5.1)

| Rate and extent of oral absorption/systemic bioavailability | 94 % (based on urinary (7.6-12.4 %) and biliary (82.2-75.1 %) excretion within 72 h; single dose 10 mg/kg bw)** considered appropriate for the derivation of the AOEL or 85 % (based on urinary (30 %) and biliary (50 %) excretion plus amount in carcass and cage wash within 72 h; single dose 250 mg/kg bw)* |
|---|---|
| Toxicokinetics | No toxicokinetic parameters (C_{max}, T_{max}, Plasma T1/2) for parent and metabolites are available for DMTA-P* Values from a study performed with DMTA: Toxicokinetic parameters for parent and metabolites (10 mg/kg bw p.o.)** Whole blood: AUC = 80.66-139.78 µg Eq x h/g (males-females) C_{max} 5-10 µg Eq/mL male/females T_{max} 72 h, T_{1/2} 255 h (male) and 359 h (female) Plasma: AUC_{1-∞} (10 mg/kg bw) = 2.85-3.41 (male-female) C_{max} 0.07-0.13 µg Eq/mL male/females T_{max} 1-4 h T_{1/2} 63 h (male) and 56 h (female) |
| Distribution | Widely (highest residues in rat erythrocytes due to species specific binding to haemoglobin)** |
| Potential for bioaccumulation | No evidence for accumulation potential* (binding to rat haemoglobin but not to human haemoglobin**) |
| Rate and extent of excretion | Rapid, 40.9-54.9 % in urine, 46.4-32.2 % in faeces and 2-2.4 % in cage wash (high dose 250 mg/kg bw; male and female, respectively); about 90 % excreted within 168 h* 79.6 % in bile (10 mg/kg bw; male) and 50.3 % (250 mg/kg bw; female) within 72 h* |
| Metabolism in animals | Extensively metabolised (> 40 metabolites; < 2 % excreted as parent in faeces), primarily via glutathione conjugation; Main metabolite M656PH025 (iso); main biotransformation steps are glutathione conjugation, enzymatic cleavage of the tripeptide intermediate and subsequent metabolic reactions on the resulting cysteine |
conjugate (N-acetylation of the cysteine moiety, hydrolysis of S-conjugates to the mercaptan (followed by S-methylation), oxidation of the sulphur atom to form sulphoxides and sulphones; o-demethylation; hydroxylation, conjugation with glucuronic acid, replacement of the chlorine atom by hydrogen (reduction) or by a hydroxyl group (hydrolysis), dimerisation of a mercaptan)*

** In vitro metabolism **

Metabolism of the racemate and dimethenamid-P in rat liver slices is qualitatively and quantitatively comparable.

\(^{14}\text{C-}\text{dimethenamid-P is extensively metabolised by hepatocytes from dogs, rats and humans. All metabolites detected after incubation with human hepatocytes were also present in animal hepatocyte samples, except for the metabolite M656PH007. M656PH007 was found in the in-vivo rat study.}\)

** Toxicologically relevant compounds (animals and plants) **

dimethenamid-P

** Toxicologically relevant compounds (environment) **

dimethenamid-P and metabolite M656PH051

* Based on data of dimethenamid-P

** Based on data with dimethenamid racemate

** Acute toxicity (Regulation (EU) N° 283/2013, Annex Part A, point 5.2) **

| Rat LD\(_{50}\) oral | 429 mg/kg bw* | H302 Acute Tox Cat.4 |
|----------------------|----------------|---------------------|
| Rat LD\(_{50}\) dermal | > 2000 mg/kg bw* |                   |
| Rat LC\(_{50}\) inhalation | > 5.16 mg/L air (4-h, head/nose-only)* |                   |
| Skin irritation | Non-irritant* |                   |
| Eye irritation | Non-irritant* |                   |
| Skin sensitisation | Sensitising (Buehler-test*; Magnusson and Kligman***) | H317 Skin Sens. 1 |
| Phototoxicity | Non-phototoxic * in vitro (3T3 NRU-PT test)(a) – data needed |                   |

* Based on data of dimethenamid-P

** Based on data with dimethenamid racemate

**(a) The 3T3 NRU-PT test might not be appropriate test for UVB absorbers as dimethenamid-P

** Short-term toxicity (Regulation (EU) N° 283/2013, Annex Part A, point 5.3) **

| Target organ / critical effect | Liver (weight increases, biochemical and histopathological changes) and decreased body weight gain in rats, dogs and mice. |
|--------------------------------|---------------------------------------------------------------------------------------------------------------|
| Relevant oral NOAEL | 90-day, rat: 34 mg/kg bw per day**  
90-day, rat: 37 mg/kg bw per day* |
Relevant dermal NOAEL

| 90-day, dog: 4.3 mg/kg bw per day** |

Relevant inhalation NOAEL

| 21-day, rabbit: 1190 mg/kg bw per day (systemic toxicity)** |
| LOAEL 1190 mg/kg bw per day (local effects)** |

Relevant inhalation NOAEL

| No data - not required |

* Based on data of dimethenamid-P
** Based on data with dimethenamid racemate

Genotoxicity (Regulation (EU) N° 283/2013, Annex Part A, point 5.4)

| In vitro studies |
|------------------|
| Ames test: overall negative* (-S9: 1x positive, 3x negative; +S9: 3x negative) |
| Ames test: negative** |
| V79/HGPRT: negative*/** |
| Forward mutations in L5178Y mouse lymphoma cells (TK +/- locus assay): negative* |
| UDS, rat primary hepatocytes: negative* |
| UDS, rat primary hepatocytes: positive** |

| In vivo studies |
|----------------|
| Mouse Micronucleus test: negative* |
| UDS, rat primary hepatocytes: negative** |
| Rat micronucleus test, dimethenamid-Pl: negative |

Photomutagenicity

| Not submitted – data needed |

Potential for genotoxicity

| dimethenamid-P is unlikely to be genotoxic |

* Based on data of dimethenamid-P
** Based on data with dimethenamid racemate

Long-term toxicity and carcinogenicity (Regulation (EU) N°283/2013, Annex Part A, point 5.5)

| Long-term effects (target organ/critical effect) |
|-----------------------------------------------|
| Liver (weight increases, biochemical and histopathological changes), decreased body weight gain in mice only |

| Relevant long-term NOAEL |
|-------------------------|
| 2-year, rat: 5 mg/kg bw per day** |
| 18-month, mouse: 40 mg/kg bw per day** |

Carcinogenicity (target organ, tumour type)

| Rat: no evidence of carcinogenicity |
| Mouse: no evidence of carcinogenicity |
| dimethenamid-P is unlikely to pose a hazard to humans |

| Relevant NOAEL for carcinogenicity |
|----------------------------------|
| 2-year, rat: 80 mg/kg bw per day (the highest dose tested); |
| 18-month, mouse: 411 mg/kg bw per day (the highest dose tested) |

* Based on data of dimethenamid-P
** Based on data with dimethenamid racemate
Reproductive toxicity (Regulation (EU) No 283/2013, Annex Part A, point 5.6)

Reproduction toxicity

Reproduction target / critical effect

Adult: bw (gain) ↓ liver weight ↑
Reproductive and fertility: no evidence for impairment of fertility and reproduction
Offspring: bw (gain) ↓ during lactation

Relevant parental NOAEL

37.5 mg/kg bw per day**

Relevant reproductive NOAEL

145 mg/kg bw per day (the highest dose tested)**

Relevant offspring NOAEL

37.5 mg/kg bw per day**

* Based on data of dimethenamid-P
** Based on data with dimethenamid racemate

Developmental toxicity

Developmental target / critical effect

Maternal:
Rat: food intake and bw gain ↓*
Rabbit: food intake & bw gain ↓, clinical signs**
Developmental:
Rat: delayed ossification*
Rabbit: embryolethality**

Relevant maternal NOAEL

Rat: LOAEL 25 mg/kg bw per day*
Rabbit: 37.5 mg/kg bw per day**

Relevant developmental NOAEL

Rat: 25 mg/kg bw per day*
Rabbit: 75 mg/kg bw per day**

* Based on data of dimethenamid-P
** Based on data with dimethenamid racemate

Neurotoxicity (Regulation (EU) No 283/2013, Annex Part A, point 5.7)

Acute neurotoxicity

No findings indicative of neurotoxic potential reported
NOAEL_neurotoxicity: 600 mg/kg bw per day*
NOAEL_systemic: 200 mg/kg bw per day*

Repeated neurotoxicity

No findings indicative of neurotoxic potential reported
NOAEL_neurotoxicity: 323 mg/kg bw per day*
NOAEL_systemic: 63 mg/kg bw per day*

Additional studies (e.g. delayed neurotoxicity, developmental neurotoxicity)

No data submitted for delayed neurotoxicity or developmental neurotoxicity

* Based on data of dimethenamid-P
** Based on data with dimethenamid racemate
### Other toxicological studies (Regulation (EU) No 283/2013, Annex Part A, point 5.8)

| Supplementary studies on the active substance | Binding of dimethenamid to haemoglobin, production of methaemoglobin**:  
- no effect on methaemoglobin in rat blood  
- binding of dimethenamid to rat haemoglobin  
- primarily to globin, but practically no binding to human haemoglobin  
Liver enzyme induction of dimethenamid:  
Induction of P-450 dependent liver enzymes in rats  
4-day, rat: NOAEL = 25 mg/kg bw per day**  
4-week immunotoxicity of dimethenamid-P in female mice:  
No evidence for immunotoxicity up to 1167 mg/kg bw per day, the highest dose tested*  
Liver enzyme induction of dimethenamid:  
Induction of P-450 dependent liver enzymes in rats  
4-day, rat: NOAEL = 25 mg/kg bw per day**  
Liver enzyme induction of dimethenamid:  
Induction of P-450 dependent liver enzymes in rats  
4-day, rat: NOAEL = 25 mg/kg bw per day** |
| Endocrine disrupting properties | No endocrine effects on the estrogen, androgen or thyroid hormone system* |
| Studies performed on metabolites or impurities | Toxicity studies of metabolites: |
| M656PH003 (plant (non-edible), animal (non-edible) & groundwater) (M3) | Structural alerts: Inconclusive alert chromosomal aberration in vitro; covered by the toxicological testing of dimethenamid-P and M656PH043 |
| M656PH010 (groundwater metabolite) (M10) | No data provided - pending on further assessment in the fate and behaviour in the environment, repeated-dose toxicity including genotoxicity profile may be needed to perform a consumer risk assessment. |
| M656PH011 (plant & animal) (M11) | Structural alerts: Inconclusive alert chromosomal aberration in vitro; covered by the toxicological testing of dimethenamid-P and M656PH043 |
| M656PH014 (animal & plant) (M14) | Structural alerts for genotoxicity: no |
| M656PH023 (plant & groundwater) (M23) | Structural alerts: inconclusive for chromosomal aberration in vitro  
LD₅₀ oral, rat: 5000 mg/kg bw  
Bacterial mutagenicity, gene mutation assay, micronucleus in vivo test: negative; no concern for genotoxic potential  
28-day, rat: NOAEL: 357 mg/kg bw per day) based on increased absolute and relative liver weight with concurrent increase in triglycerides  
The toxicological profile of the metabolite is covered by the reference values of the parent; if refinement is needed, an ADI of 0.36 mg/kg bw per day (UF 1000) may apply. |
### M656PH026 (plant & animal) (M26)

- Based on QSAR analysis no concern for genotoxicity
- Based on structure similarity with metabolite M656PH025 (major metabolite in rat - bile), its toxicological profile is covered by the reference values of the parent.

### M656PH027 (plant, animal & groundwater) (M27)

- Rat oral LD₅₀ > 5000 mg/kg bw
- Bacterial mutagenicity, gene mutation assay, micronucleus in vivo test: negative; no concern for genotoxic potential
- 28-day, rat: NOAEL: 341 mg/kg bw per day, based reduced ovary weight in females
- The toxicological profile of the metabolite is covered by the reference values of the parent; if refinement is needed, an ADI of 0.34 mg/kg bw per day (UF 1000) may apply

### M656PH030 (plant & animal) (M30)

- Bacterial mutagenicity, gene mutation assay: negative; micronucleus in vitro test: positive; micronucleus in vivo test: negative; the metabolite is unlikely to be genotoxic
- Based on read-across from metabolites M26, M31 and M25, the metabolite is covered by the reference values of the parent

### M656PH031 (plant & groundwater) (M31)

- Bacterial mutagenicity, gene mutation assay, chromosomal aberration in vitro test: negative
- 28-day, rat: no adverse signs of toxicity, NOAEL: 1068 mg/kg bw per day
- The toxicological profile of the metabolite is covered by the reference values of the parent; if refinement is needed, an ADI of 1 mg/kg bw per day (UF 1000) may apply.

### M656PH032 (hen & groundwater) (M32)

- Structural alerts: chromosomal aberration in vitro and bacterial mutagenicity: negative; the metabolite is unlikely to be genotoxic
- Based on read across from M26, the toxicological profile of the metabolite is covered by the reference values of the parent.

### M656PH040 (plant, glycoside of M656PH011) (M40)

- Structural alerts: Inconclusive alert chromosomal aberration in vitro; covered by the toxicological testing of dimethenamid-P and M656PH043

### M656PH043 (groundwater) (M43)

- Bacterial mutagenicity, gene mutation assay: negative; micronucleus in vitro test: positive, micronucleus in vivo test: negative
- Repeated-dose toxicity data relevant to consumer exposure has to be provided.
| Identifier     | Type          | Structural alerts for genotoxicity | Bacterial mutagenicity, gene mutation assay, micronucleus \textit{in vitro} test | 28-day, rat: No adverse signs of toxicity, NOAEL: | Toxicological profile of the metabolite is covered by the reference values of the parent; if refinement is needed, an ADI may apply. |
|----------------|---------------|-----------------------------------|--------------------------------------------------------------------------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| M656PH045      | groundwater   | no                                | negative                                                                      | 1174 mg/kg bw per day                         | a |  |
| M656PH047      | groundwater   | no                                | negative                                                                      | 967 mg/kg bw per day (corrected for 90.7 % purity) | b |  |
| M656PH049      | groundwater   | According to QSAR no concern for genotoxicity | Repeated-dose toxicity data relevant to consumer exposure has to be provided | |  |
| M656PH050      | plant & groundwater | Structural alerts for genotoxicity: no | | |  |
| M656PH051      | plant & groundwater | Structural alerts: inconclusive gene mutation in bacterial cells (Ames test) | Repeated-dose toxicity data relevant to consumer exposure has to be provided, including clarification of the genotoxicity profile of the metabolite | |  |
| M656PH052      | groundwater   | According to QSAR no concern for genotoxicity | Repeated-dose toxicity data relevant to consumer exposure has to be provided | |  |
| M656PH053      | groundwater(isomer 1 and 2) | Structural alerts for genotoxicity: no | Repeated-dose toxicity data relevant to consumer exposure has to be provided on the metabolite for both isomers 1 and 2 | |  |
| Compound | Description | Genotoxicity Alerts | Toxicological Profile |
|----------|-------------|---------------------|-----------------------|
| M656PH054 (groundwater) (M54) | Structural alerts: inconclusive chromosomal aberration *in vitro*; Bacterial mutagenicity, gene mutation assay: negative; micronucleus *in vitro* test: positive; micronucleus *in vivo* test: negative | 28-day, rat: food consumption in males ↓, bw development in male and female ↓, NOAEL 346 mg/kg bw per day; corrected for 86.5 % purity. The toxicological profile of the metabolite is covered by the reference values of the parent; if refinement is needed, an ADI of 0.35 mg/kg bw per day (UF 1000) may apply. |
| M656H055 (groundwater) (M55) | Structural alerts: inconclusive for chromosomal aberration *in vitro* for presumed degradates; Bacterial mutagenicity, gene mutation assay, micronucleus *in vivo* test: negative | Repeated-dose toxicity data relevant to consumer exposure has to be provided on the metabolite. |
| M656PH059 (groundwater) (isomer 1, 2, 3) (M59) | Structural alerts for genotoxicity: no | Repeated-dose toxicity data relevant to consumer exposure has to be provided on the metabolite for the three isomers 1, 2 and 3. |
| M656PH062 (groundwater) (M62) | Structural alerts for genotoxicity: no; Bacterial mutagenicity, gene mutation assay: negative;* micronucleus *in vitro* test: positive micronucleus *in vivo* test: negative* | 28-day, rat: NOAEL: 103 mg/kg bw per day, based on liver toxicity with centrilobular hypertrophy and clinic-chemical changes*. The toxicological profile of the metabolite is covered by the reference values of the parent; if refinement is needed, an ADI of 0.1 mg/kg bw per day (UF 1000) may apply. * The ethyl ester derivative of M656PH062 was tested. |
| M656PH081 (plant) (M81) | Structural alerts for genotoxicity: no | Based on structural similarity with metabolite M656PH027, the toxicological profile of the metabolite is covered by the reference values of the parent. |
| M656PH096 (animal) (M96) | Structural alerts for genotoxicity: no | |
| M656PH098 (animal) (M98) | Structural alerts for genotoxicity: no | |

*based on studies performed with racemic dimethenamid
Medical data (Regulation (EU) N° 283/2013, Annex Part A, point 5.9)

No adverse health effects during research, production and use of dimethenamid-P and its formulations.

Summary³ (Regulation (EU) N°1107/2009, Annex II, point 3.1 and 3.6)

| Value (mg/kg bw (per day)) | Study | Uncertainty factor |
|---------------------------|-------|-------------------|
| Acceptable Daily Intake (ADI) | 0.04², ⁴ | 90-day, dog, supported by 2-year, rat | 100 |
| Acute Reference Dose (ARfD) | 0.08⁴ | Maternal toxicity in developmental toxicity study in rats | 300¹(¹) |
| Acceptable Operator Exposure Level (AOEL) | 0.04² | 90-day, dog | 100³ |
| Acute Acceptable Operator Exposure Level (AAOEL) | 0.08 | Maternal toxicity in developmental toxicity study in rats | 300¹(¹, ³) |

¹ additional UF of 3 as based on a LOAEL
² Based on studies performed with racemic dimethenamid
³ Correction for limited oral absorption/bioavailability not necessary.
⁴ Reference values are applicable to metabolites M3, M11, M23*, M26, M27*, M30, M31*, M32, M40, M45*, M47*, M54*, M62* and M81
*if refinement is needed, specific reference values of the metabolites may be applied

Previously set ref values: ADI 0.02 mg/kg bw per day; ARfD 0.25 mg/kg bw; AOEL 0.04 mg/kg bw per day (European Commission, 2003)

Dermal absorption (Regulation (EU) N° 284/2013, Annex Part A, point 7.3)

Representative formulations

BAS 830 01 H:
2 % for the concentrate (333 g/L) and 43 % for the dilution (1.25 g/L) based on in vitro human skin*

BAS 656 12 H:
0.4 % for the concentrate (720 g/L), 39 % for the dilution (3.6 g/L) and 31 % for the dilution (0.72 g/L) based on in vitro human skin*

Exposure scenarios (Regulation (EU) N° 284/2013, Annex Part A, point 7.2)

Operators

BAS 656 12 H
Use: maize, soybean, sunflower, sugar beet; tractor mounted equipment, application rate: 0.864 kg a.s./ha

Exposure estimates (model): % of AOEL/AAOEL
UK POEM
Without PPE: 4695
PPE (gloves m/l + appl.): 745

German model
Without PPE: 498
PPE (gloves m/l + appl., coverall appl.): 36

³ If available include also reference values for metabolites
|                             | % of AOEL/AAOEL | \% of AOEL |
|-----------------------------|-----------------|------------|
| **EFSA (2014)**             |                 |            |
| Without PPE (with workwear):| 123/330         |            |
| PPE (workwear, gloves m/l + gloves appl.): | 11/52          |            |
| **BAS 830 01 H**             |                 |            |
| Use: winter oilseed rape, tractor mounted equipment, application rate: 0.5 kg a.s./ha | | |
| Exposure estimates (model)   |                 |            |
| UK POEM                     |                 |            |
| Without PPE                 | 3842            |            |
| PPE (gloves m/l + appl.)    | 595             |            |
| German model                 |                 |            |
| Without PPE                 | 331             |            |
| PPE (gloves m/l, coverall appl.) | 81             |            |
| **EFSA (2014)**             |                 |            |
| Without PPE (with workwear):| 120/317         |            |
| PPE (workwear, gloves m/l+ appl.): | 9/55           |            |
| **BAS 656 12 H**             |                 |            |
| Krebs et al. (2000)         | % of AOEL       |            |
| Without PPE                 | 70              |            |
| **EFSA (2014)**             |                 |            |
| Potential                   | 1053            |            |
| With workwear               | 118             |            |
| With workwear and gloves    | 67              |            |
| **BAS 830 01 H**             |                 |            |
| Krebs et al. (2000)         | % of AOEL       |            |
| Without PPE                 | 27              |            |
| **EFSA (2014)**             |                 |            |
| Potential                   | 672             |            |
| With workwear               | 75              |            |
Bystanders and residents

| BAS 656 12 H |
|--------------|
| Martin et al. (2008) | % of (A)AOEL |
| Bystander (adult): | 39 |
| Bystander (child): | 30 |
| Resident (adult): | 3 |
| Resident (child): | 5 |
| EFSA (2014) (50 % drift reduction, 5 m distance) |

### Bystander child

- **Drift**: 83
- **Vapour**: 1
- **Deposits**: 4
- **Re-entry**: 71

### Bystander adult

- **Drift**: <1
- **Vapour**: 2
- **Deposits**: 2
- **Re-entry**: 40

### Resident child

- **Drift**: 75
- **Vapour**: 3
- **Deposits**: 3
- **Re-entry**: 142(*)
- **Sum**: 160(*)

### Resident adult

- **Drift**: 14
- **Vapour**: <1
- **Deposits**: 1
- **Re-entry**: 79
- **Sum**: 72
BAS 830 01 H

| Martin et al. (2008) | % of (A)AOEL |
|---------------------|--------------|
| Bystander (adult):  | 25           |
| Bystander (child):  | 19           |
| Resident (adult):   | 2            |
| Resident (child):   | 3            |

EFSA (2014) (50% drift reduction, 10m distance)

**Bystander child**
- Drift: 43
- Vapour: 1
- Deposits: 2
- Re-entry: 45

**Bystander adult**
- Drift: 9
- Vapour: 1
- Deposits: 1
- Re-entry: 25

**Resident child**
- Drift: 40
- Vapour: 3
- Deposits: 1
- Re-entry: 91
- Sum: 98

**Resident adult**
- Drift: 8
- Vapour: 1
- Deposits: 1
- Re-entry: 50
- Sum: 45

(*) Tier 1 estimation, that may be overestimated for herbicide treatment at early stages of plant growth – but representative GAPs include later stage of plant growth.
Classification with regard to toxicological data (Regulation (EU) N° 283/2013, Annex Part A, Section 10)

Substance:

Harmonised classification according to Regulation (EC) No 1272/2008 and its Adaptations to Technical Process [Table 3.1 of Annex VI of Regulation (EC) No 1272/2008 as amended]:

| Substance: dimethenamid-P |
|---------------------------|
| Regulation (EC) No 2015/1221: |
| Warning, Acute Tox. 4, H302: Harmful if swallowed |
| Warning, Skin Sens. 1, H317: May cause an allergic skin reaction |

Peer review proposal for harmonised classification according to Regulation (EC) No 1272/2008:

| Substances |
|------------|
| dimethenamid-P |
| Regulation (EC) No 2015/1221: |
| Warning, Acute Tox. 4, H302: Harmful if swallowed |
| Warning, Skin Sens. 1, H317: May cause an allergic skin reaction |

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4 Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. OJ L 353, 31.12.2008, 1-1355.

5 Commission Regulation (EU) 2015/1221 of 24 July 2015 amending Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures, for the purposes of its adaptation to technical and scientific progress. OJ L 197, 25.7.2015, 10-23.

6 It should be noted that harmonised classification and labelling is formally proposed and decided in accordance with Regulation (EC) No 1272/2008.
Section 3 Residues in or on treated products food and feed

Residues in or on treated products food and feed

Metabolism in plants (Regulation (EU) N° 283/2013, Annex Part A, points 6.2.1, 6.5.1, 6.6.1 and 6.7.1)

| Primary crops (Plant groups covered) | Crop groups | Crop(s) | Application(s) | DAT (days) |
|--------------------------------------|-------------|---------|----------------|------------|
| OECD Guideline 501                   | Root crops  | Sugar beet | Early post emergence, 3 x 0.45 kg as/ha, 3-\textsuperscript{14}C-thienyl labelled racemic dimethenamid | Roots & leaves with tops: 126 DAT |
|                                      | Cereals/grass crops | Maize | Early post emergence, 1 x 1.3 kg as/ha, 3-\textsuperscript{14}C-thienyl labelled racemic dimethenamid and 1 x 0.72 kg as/ha 3-\textsuperscript{14}C-thienyl labelled dimethenamid-P | Forage: 30 DAT Forage/husks and grain/cobs: 81 DAT Mature plants: 120 DAT |
|                                      | Pulses/Oilseeds | Soybean seed | Soil application, Pre-emergence, 1 kg/ha, 2-\textsuperscript{14}C-thienyl labelled dimethenamid-P | Mature plants: 119 DAT |

Residues for parent dimethenamid-P and its metabolites in edible parts of the plants are all below 0.01 mg/kg. Only metabolites M26, M30 (maize forage, DAT 30) and M26 (soybean leaves) contribute to more than 10 % TRR. No parent was detected all crops investigated. A slightly different metabolic pattern between new and old studies was noted and since the specific enantiomeric behaviour of dimethenamid was not investigated in the plant metabolism, a different metabolic pathway through the different crops it cannot be excluded. The isomeric behaviour was investigated in fate section and no switch between R and S isomers occurred (see section 4) however, the isomeric behaviour in plant would be desirable to be investigated also.

| Rotational crops (metabolic pattern) | Crop groups | Crop(s) | PBI (days) | Comments |
|--------------------------------------|-------------|---------|------------|----------|
| OECD Guideline 502                   | Root/tuber crops | Radish Carrot | 30, 120, 365 200 | Confined rotational studies with dimethenamid-P (1.2N), spinach, radish and wheat and dimethenamid (R/S) (5.1N), in lettuce, carrot and spring wheat |
|                                      | Leafy crops | Spinach Lettuce | 30, 120, 365 200 |
|                                      | Cereal (small grain) | Wheat spring Wheat | 30, 120, 365 11, 190 |
|                                      | Other | | |

Rotational crop and primary crop metabolism similar? Yes

| Processed commodities (standard hydrolysis study) | Conditions | Recovery of \textsuperscript{14}C-M30 (%) | |
|---------------------------------------------------|------------|--------------------------------------|-----|
| OECD Guideline 507                                | 20 min, 90 °C, pH 4 | 96.3 | 90.8-102 | 5.8 |
| | 60 min, 100 °C, pH 5 | 98.0 | 95.4-102 | 3.7 |
| | 20 min, 120 °C, pH 6 | 95.1 | 94.4-96.3 | 1.1 |
Residue pattern in processed commodities similar to residue pattern in raw commodities?

- Dimethenamid-P metabolite M30 is hydrolytically stable under the representative processing conditions. The formation of any hydrolysis products was negligible.

### Plant residue definition for monitoring (RD-Mo)
| OECD Guidance, series on pesticides No 31 |
|-----------------------------------------|
| Dimethenamid (sum of stereoisomers) + M26 and M30, expressed as dimethenamid-P |

### Plant residue definition for risk assessment (RD-RA)
| OECD Guidance, series on pesticides No 31 |
|-----------------------------------------|
| Dimethenamid (sum of stereoisomers) of + metabolites M26 and M30, expressed as dimethenamid-P |

### Conversion factor (monitoring to risk assessment)
| Conversion factor (monitoring to risk assessment) |
|-----------------------------------------------|
| Not necessary |

### Metabolism in livestock (Regulation (EU) N° 283/2013, Annex Part A, points 6.2.2, 6.2.3, 6.2.4, 6.2.5 6.7.1)

#### OECD Guideline 503 and SANCO/11187/2013 rev. 3 (fish)

| Animal | Dose (mg/kg bw per day) | Duration (days) | N rate/comment |
|--------|-------------------------|-----------------|----------------|
| Laying hen (parent) | 10 | 4 | |
| Goat (parent) | 8.9 | 4 | |
| Goat (M30) | 0.57 | 10 | |
| Pig | No metabolism study in pigs was performed, since the metabolite patterns in rodents (rats) and ruminants (goat) did not differ significantly. |
| Fish | Not required as no residues of parent dimethenamid-P or its metabolites were detected in commodities with a potential use as fish feed and the log P OW is 1.98. |

- The studies conducted with dimethenamid (R/S) are not relevant since was never found in the feed items, therefore only study with M30 is considered.
- Metabolite M30 was mostly excreted via faeces and urine. Radioactive TRR found in milk, liver and kidney was equal to 0.018 mg eq/kg, 0.219 mg eq/kg and 0.243 mg eq/kg, respectively. M26 and M30 were the major compounds found in all animal commodities.
- For poultry, a metabolism study conducted with M26 or M30 is required (data gap).

| Time needed to reach a plateau concentration in milk and eggs (days) | 3 days |

#### Animal residue definition for monitoring (RD-Mo)
| OECD Guidance, series on pesticides No 31 |
|-----------------------------------------|
| Sum of metabolites M26 and M30, expressed as dimethenamid-P except poultry. |

#### Animal residue definition for risk assessment (RD-RA)
| OECD Guidance, series on pesticides No 31 |
|-----------------------------------------|
| Ruminant: -Sum of metabolites M26 and M30, expressed as dimethenamid-P. |
| Poultry: no data available (data gap) |

#### Conversion factor (monitoring to risk assessment)
| Conversion factor (monitoring to risk assessment) |
|-----------------------------------------------|
| Not applicable since the derived residue definition for monitoring and risk assessment are similar. |
| Metabolism in rat and ruminant similar (Yes/No) | Yes |
| Fat soluble residues (Yes/No) (FAO, 2009) | Not applicable until a residue definition is set |

**Residues in succeeding crops (Regulation (EU) No 283/2013, Annex Part A, point 6.6.2)**

| **Confined rotational crop study** (Quantitative aspect) | **OECD Guideline 502** | Radioactive residues were taken up via the roots. TRR levels amounted to 0.93 mg/kg in non-edible parts of the plants (wheat hay, PBI 30 days). TRRs in edible crop parts at normal harvest were up to 0.2 mg/kg at PBI 30 days and up to 0.076 mg/kg at PBI ~120 days (both wheat grain). No residues >0.01 mg/kg were detected at PBI 365 days. All identified components accounted for less than 0.03 mg/kg each |
| **Field rotational crop study** | **OECD Guideline 504** | No field rotational crop study was available. |
Stability of residues (Regulation (EU) N° 283/2013, Annex Part A, point 6.1) OECD Guideline 506

| Plant products (Category) | Commodity                  | T (°C) | Stability (Month) | Sum* (M26+M30) |
|--------------------------|----------------------------|--------|-------------------|----------------|
|                          |                            |        | Dimethenamid-P    | M26 | M30 |             |
| High water content       | Maize whole plant          | -20    | 24                | 3   | 24  | 24           |
| High oil content         | Oilseed rape               | -20    | 13                | 6   | 6   | -            |
|                          | soybean seed               | 24     | 1                 | 1   | 1   |              |
|                          | sunflower                  | 24     | 1                 | 3   |     |              |
| High protein content     | Dry bean                   | -20    | 24                | 24  | 18  | -            |
| High starch content      | Maize seed*                | -20    | 24                | 18  |     |              |
| High acid content        | Strawberry                 | -20    | 24                | 12  | 18  | 18           |

*No storage stability was demonstrated for M30 residues in high starch content matrices (data gap)
*a when considered together with M30, M26 is stable up to 18 and 24 months in high acid and high water content crops respectively.

| Animal commodity | T (°C) | Stability (Month/Year) |
|------------------|--------|------------------------|

No study regarding the storage stability of dimethenamid-P in animal commodities was submitted and they are required (data gap)
Summary of residues data from the supervised residue trials (Regulation (EU) No 283/2013, Annex Part A, point 6.3)
OECD Guideline 509, OECD Guidance, series on pesticides No 66 and OECD MRL calculator

| Crop              | Region/Indoor (a) | Residue levels (mg/kg) observed in the supervised residue trials relevant to the supported GAPs (b) | Recommendations/comments (OECD calculations) | MRL proposals (mg/kg) (c) | HR (mg/kg) (d) | STMR (mg/kg) |
|-------------------|-------------------|----------------------------------------------------------------------------------------------------|---------------------------------------------|---------------------------|----------------|--------------|
| Maize             | NEU               | 7 x<0.025                                                                                          | Storage stability on M30 residues in starch commodities was not demonstrated (data gap). | 0.03*                     | 0.025          | 0.025        |
|                   | SEU               | 8 x<0.025                                                                                          |                                              |                           |                |              |
| Sweet corn        | NEU               | 4 x <0.025                                                                                         |                                              | 0.03                      | 0.025          | 0.025        |
|                   | SEU               | 4 x<0.025                                                                                           | Maize cob with husks at silage stage was used from maize trials. |                           |                |              |
| Soya bean seed    | NEU               | 8 x<0.025                                                                                          |                                              | 0.03*                     | 0.025          | 0.025        |
|                   | SEU               | 8 x<0.025                                                                                          |                                              |                           |                |              |
| Sunflower seed    | NEU               | 7 x<0.025                                                                                          |                                              | 0.03*                     | 0.025          | 0.025        |
|                   | SEU               | 7 x<0.025                                                                                          |                                              |                           |                |              |
| Sugar beet root   | NEU               | 5 x<0.025                                                                                          | Sufficient residue trials to support the representative GAP is required (data gap). | -                         | -              | -            |
|                   | SEU               | 3x<0.025                                                                                           |                                              | -                         | -              | -            |
| Oilseed rape seed | NEU               | 14 x<0.025                                                                                         |                                              | 0.03*                     | 0.025          | 0.025        |
|                   | SEU               | 12 x<0.025                                                                                         |                                              |                           |                |              |
| MRL application   | Tree nuts, pome fruit, stone fruit | N+SEU/outdoor -                                   | No trials were provided and according to the REG 283/2013, at least three trials are required, to demonstrate that no residues above the LOQ are expected. | 0.03*                     | 0.025          | 0.025        |
| Sugar beet, fodder beet, red beet | NEU | 5 x<0.025                                                                                         | No sufficient residue trials were provided for the representative GAP in sugar beet, therefore no MRL can be proposed. | -                         | -              | -            |
|                   | SEU               | 3x<0.025                                                                                           |                                              | -                         | -              | -            |

RD-Mo: dimethenamid (sum of stereoisomers) + M26 and M30, expressed as dimethenamid-P
RD-RA: dimethenamid (sum of stereoisomers) + M26 and M30, expressed as dimethenamid-P

Representative uses

- Maize NEU: 7 x<0.025
  - Maize SEU: 8 x<0.025
- Sweet corn NEU: 4 x<0.025
  - Sweet corn SEU: 4 x<0.025
- Soya bean seed NEU: 8 x<0.025
  - Soya bean seed SEU: 8 x<0.025
- Sunflower seed NEU: 7 x<0.025
  - Sunflower seed SEU: 7 x<0.025
- Sugar beet root NEU: 5 x<0.025
  - Sugar beet root SEU: 3x<0.025
- Oilseed rape seed NEU: 14 x<0.025
  - Oilseed rape seed SEU: 12 x<0.025

MRL application

- Tree nuts, pome fruit, stone fruit N+SEU/outdoor: -
- Sugar beet, fodder beet, red beet NEU: 5 x<0.025
  - Sugar beet, fodder beet, red beet SEU: 3x<0.025
| Crop                                | Region/Indoor (a) | Residue levels (mg/kg) observed in the supervised residue trials relevant to the supported GAPs (b) | Recommendations/comments (OECD calculations) | MRL proposals (mg/kg) | HR (mg/kg) (c) | STMR (mg/kg) (d) |
|-------------------------------------|-------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------|----------------------|----------------|-----------------|
| Swedes, Turnips, horseradish        | NEU               | 8 x <0.025                                                                                       | Extrapolation from sugar beet residue trials is acceptable only for NEU use | 0.03*                | 0.025          | 0.025           |
|                                     | SEU               | 4 x <0.025                                                                                       |                                               |                      |                |                 |
| Spring, Welsh onions & similar      | NEU               | 2x < 0.025, 0.029, 0.042                                                                           | MRL calculated with OECD MRL calculator.     | 0.07                 | 0.042          | 0.027           |
|                                     |                   |                                                                                                  | According to the GAP uses in SEU Member States are intended as well, but no trials were provided. However, extrapolation from leeks is possible | 0.07                 | 0.042          | 0.027           |
| Leek                                | SEU               | 4x <0.025                                                                                       |                                               | 0.03*                | 0.025          | 0.025           |
| Cucumber                            | NEU               | 4x <0.025                                                                                       | Residue data address identical GAPs; the data sets may therefore be combined to cover the entire group of cucurbits with edible peel. | 0.03*                | 0.025          | 0.025           |
| Zucchini                            | NEU               | 4x <0.025                                                                                       |                                               |                      |                |                 |
| Melon                               | NEU               | 4x <0.025                                                                                       | Residue data address identical GAPs; the data sets may therefore be combined to cover the entire group of cucurbits with inedible peel. | 0.03*                | 0.025          | 0.025           |
| Pumpkin                             | NEU               | 4x <0.025                                                                                       |                                               |                      |                |                 |
| Sweet corn                          | NEU               | 4x <0.025                                                                                       | Maize cob with husks at silage stage was used from maize trials. | 0.03*                | 0.025          | 0.025           |
|                                    | SEU               | 4x <0.025                                                                                       |                                               |                      |                |                 |
| Flowering brassicas                 | NEU               | 2x <0.025                                                                                       |                                               | 0.03*                | 0.025          | 0.025           |
|                                    | SEU               | 4x <0.025                                                                                       |                                               |                      |                |                 |
| Brussels sprout                     | NEU               | 4x <0.025                                                                                       |                                               | 0.03*                | 0.025          | 0.025           |
| Head cabbage                        | NEU               | 2x <0.025, 0.03                                                                                   |                                               | 0.03*                | 0.025          | 0.025           |
|                                    | SEU               | 3x <0.025                                                                                       |                                               |                      |                |                 |
| Leafy                               | NEU               | 3x <0.025, 0.027                                                                                  |                                               | 0.09                 | 0.063          | 0.026           |

(a) **Crop Region/Indoor**: NEU = Northern Europe, SEU = Southern Europe.
(b) Residue levels (mg/kg) observed in the supervised residue trials relevant to the supported GAPs. RD-Mo: dimethenamid (sum of stereoisomers) + M26 and M30, expressed as dimethenamid-P. RD-RA: dimethenamid (sum of stereoisomers) + M26 and M30, expressed as dimethenamid-P.
(c) **Recommendations/comments**: Extrapolation from sugar beet residue trials is acceptable only for NEU use.
(d) **MRL proposals (mg/kg)**: According to the GAP uses in SEU Member States are intended as well, but no trials were provided. However, extrapolation from leeks is possible.
(e) **HR (mg/kg)**: Residue data address identical GAPs; the data sets may therefore be combined to cover the entire group of cucurbits with edible peel.
(f) **STMR (mg/kg)**: MRL calculated with OECD MRL calculator. Maize cob with husks at silage stage was used from maize trials.
**Crop** | Region/Indoor | Residue levels (mg/kg) observed in the supervised residue trials relevant to the supported GAPs (b) | Recommendations/comments (OECD calculations) | MRL proposals (mg/kg) | HR (mg/kg) (c) | STMR (mg/kg) (d)
--- | --- | --- | --- | --- | --- | ---
**brassicas**
- **SEU** | 8x <0.025, 0.032, 0.040, 0.063 | | | | |
- **NEU** | 8x <0.025 | 8x <0.025 | 0.03* | 0.025 | 0.025 |
- **Vicia beans (dry)** | 8x <0.25 | 8x <0.025 | 0.03* | 0.025 | 0.025 |
- **Lupine** | 8x <0.025 | 8x <0.025 | Extrapolation form dry beans. | 0.03* | 0.025 | 0.025 |
- **Millet, sorghum**
  - **NEU** | 7x <0.025 | 7x <0.025 | Extrapolation from maize | 0.03* | 0.025 | 0.025 |
  - **SEU** | 8x <0.025 | 8x <0.025 | | | |
- **Witloof** | - | - | - | - | - | - |
- **Chicory root** | - | - | Etrapolation from sugar beet residue trials, however only the NEU use is supported. | 0.03* | 0.025 | 0.025 |

**Summary of the data on formulation equivalence OECD Guideline 509**

**Crop** | Region | Residue data (mg/kg) | Recommendations/comments
--- | --- | --- | ---

**Summary of data on residues in pollen and bee products** (Regulation (EU) No 283/2013, Annex Part A, point 6.10.1)

**Product(s)** | Region | Residue data (mg/kg) | Recommendations/comments
--- | --- | --- | ---

Residue trials on honey bees products used for human consumptions are required according to REG 283/2013 and have to be provided (data gap)

(a): NEU or SEU for northern or southern outdoor trials in EU member states (N+SEU if both zones), Indoor for glasshouse/protected crops, Country if non-EU location.
(b): Residue levels in trials conducted according to GAP reported in ascending order (e.g. 3 x <0.01, 0.01, 6 x 0.02, 0.04, 0.08, 3 x 0.10, 2 x 0.15, 0.17). When residue definition for monitoring and risk assessment differs, use Mo/RA to differentiate data expressed according to the residue definition for Monitoring and Risk Assessment.
(c): HR: Highest residue. When residue definition for monitoring and risk assessment differs, HR according to residue definition for monitoring reported in brackets (HRMo).
(d): STMR: Supervised Trials Median Residue. When residue definition for monitoring and risk assessment differs, STMR according to definition for monitoring reported in brackets (STMRA).
Inputs for animal burden calculations

| Feed commodity                  | Median dietary burden (mg/kg) | Maximum dietary burden (mg/kg) | Comment |
|--------------------------------|-------------------------------|--------------------------------|---------|
| **Representative uses**         |                               |                                 |         |
| Maize (corn field,) stover      | 0.02*                         | 1.33                            | HR      |
| Maize (corn pop), stover        | 0.02*                         | 1.33                            | HR      |
| Maize (corn field, pop) grain   | 0.02*                         | STMR                            | N/A     |
| Maize (corn field, pop) milled by-products | 0.02*  | STMR | N/A |
| Maize (corn, field) hominy meal | 0.02*x 6                     | STMR*PF(default)                | N/A     |
| Maize (corn) gluten feed        | 0.02*x2.5                     | STMR*PF(default)                | N/A     |
| Maize (corn) gluten feed        | 0.02*x1                       | STMR*PF(default)                | N/A     |
| Distille’r maize grains         | 0.02*x3.3                     | STMR*PF(default)                |         |
| Soybean seed                    | 0.02*                         | STMR                            | N/A     |
| Soybean meal                    | 0.02*x1.3                     | STMR*PF(default)                |         |
| Soybean meal                    | 0.02*x13                      | STMR*PF(default)                |         |
| Soybean fodder                  | 0.02                          | STMR                            | 0.024*1.5 | HR*PF(default) |
| Soybean silage                  | 0.02                          | STMR                            | 0.024*0.5 | HR*PF(default) |
| Canola (meal)                   | 0.02*x2                       | STMR*PF(default)                | N/A     |
| Sunflower (meal)                | 0.02*x2                       | STMR*PF(default)                | N/A     |
| **MRL application**             |                               |                                 |         |
| Cabbage                         | 0.02*                         | STMR                            | 0.02*   | HR      |
| Kale leaves                     | 0.02*                         | STMR                            | 0.023   | HR      |
| Turnip tops                     | 0.02*                         | STMR, extrapolated from sugar beet tops | 0.02* | HR, extrapolated from sugar beet tops |
| Turnip roots                    | 0.02*                         | STMR, extrapolated from sugar beet root | 0.02* | HR, extrapolated from sugar beet root |
| Feed commodity       | Median dietary burden | Comment                                      | Maximum dietary burden | Comment                                      |
|----------------------|-----------------------|----------------------------------------------|------------------------|----------------------------------------------|
|                      | (mg/kg)               |                                              | (mg/kg)                |                                              |
| Swede roots          | 0.02*                 | STMR, extrapolated from beet root           | 0.02*                  | HR, extrapolated from beet root              |
| Bean seed            | 0.02*                 | STMR                                         | N/A                    |                                              |
| Lupin seed           | 0.02*                 | STMR, extrapolated from dry beans           | N/A                    |                                              |
| Millet grain         | 0.02*                 | STMR, extrapolated from maize grain         | N/A                    |                                              |
| Millet stover        | 0.02*                 | STMR, extrapolated from maize stover        | 1.33                   | HR, extrapolated from maize stover          |
| Sorghum grain        | 0.02*                 | STMR, extrapolated from maize grain         | N/A                    |                                              |
| Sorghum stover       | 0.02*                 | STMR, extrapolated from maize stover        | 1.33                   | HR, extrapolated from maize stover          |

Note: In the DB calculation, the residue were considered only as sum of M26 and M30.
### Residues from livestock feeding studies (Regulation (EU) No 283/2013, Annex Part A, points 6.4.1, 6.4.2, 6.4.3 and 6.4.4)

OECD Guideline 505 and OECD Guidance, series on pesticides No 73

| MRL calculations | Ruminant | Pig/Swine | Poultry | Fish |
|------------------|----------|-----------|---------|------|
| **Highest expected intake**<br>(mg/kg bw/d) & (mg/kg DM for fish) | Beef cattle: 0.012 & Dairy cattle: 0.016 | Ram/Ewe: 0.014 & Lamb: 0.018 | Breeding: 0.010 & Finishing: 0.003 | Broiler: 0.003 & Turkey: 0.004 | Carp & Trout |
| Intake >0.004 mg/kg bw | Yes & Yes | Yes (Breeding) & Yes (Layer) | Yes/No | Yes & No |
| Feeding study submitted | No & No | No & No | No & No | No & No |

| Representative feeding level (mg/kg bw/d, mg/kg DM for fish) and N rates |
|---|---|---|---|---|---|
| Level | Beef: N & Dairy: N | Lamb: N & Ewe: N | N rate Breed/Finish | B or T: N & Layer: N | N rate Carp/Tout |
| Estimated HR<sup>(a)</sup> at 1N MRL proposals | Estimated HR<sup>(a)</sup> at 1N MRL proposals | Estimated HR<sup>(a)</sup> at 1N MRL proposals | Estimated HR<sup>(a)</sup> at 1N MRL proposals | Estimated HR<sup>(a)</sup> at 1N MRL proposals | Estimated HR<sup>(a)</sup> at 1N MRL proposals |

- **Muscle**
- **Fat**
- **Meat**<sup>(b)</sup>
- **Liver**
- **Kidney**
- **Milk**<sup>(a)</sup>
- **Eggs**

| Method of calculation<sup>(c)</sup> |
|---|
| (a): Estimated HR calculated at 1N level *(estimated mean level for milk).* |
| (b): HR in meat calculated for mammalian on the basis of 20 % fat + 80 % muscle and 10 % fat + 90 % muscle for poultry |
| (c): The OECD guidance document on residues in livestock (series on pesticides 73) recommends three different approaches to derive MRLs for animal products; by applying a transfer factor (Tf), by intrapolation (It) or by linear regression (Ln). Fill in method(s) considered to derive the MRL proposals. |
## STMR calculations

| Median expected intake (mg/kg bw/d) | Beef cattle | Ram/Ewe | Breeding | Broiler | Poultry | Fish |
|-----------------------------------|-------------|---------|----------|---------|---------|------|
| (mg/kg DM for fish)               | Dairy cattle | Lamb    | Finishing | Layer   |         |      |
| Ruminant                          | Beef cattle: N | Lam Ewe: N | Breeding: N | Broiler: N | Product: N | Fish: N |
| Pig/Swine                         |             |         |          |         |         |      |
| Poultry                           |             |         |          |         |         |      |
| Fish                              |             |         |          |         |         |      |

### Representative feeding level (mg/kg bw/d, mg/kg DM for fish) and N rates

#### Level

- Beef: N
- Dairy: N
- Ewe: N
- Layer: N
- B or T: N

#### N rate

- Breeding/Finish
- Level
- N rate

| Meat(a) | Fat | Liver | Kidney | Milk | Eggs |
|---------|-----|-------|--------|------|------|
| Muscle  |     |       |        |      |      |
|         |     |       |        |      |      |
|         |     |       |        |      |      |

### Method of calculation(c)

- STMR in meat calculated on the basis of 20% fat + 80% muscle and 10% fat + 90% muscle for poultry
- When the mean level is set at the LOQ, the STMR is set at the LOQ.
- The OECD guidance document on residues in livestock (series on pesticide 73) recommends three different approaches to derive MRLs for animal products; by applying a transfer factor (Tf), by intrapolation (It) or by linear regression (Ln). Fill in method(s) considered to derive the MRL proposals.

### Notes

- (a): STMR in meat calculated for mammalian on the basis of 20% fat + 80% muscle and 10% fat + 90% muscle for poultry
- (b): When the mean level is set at the LOQ, the STMR is set at the LOQ.
- (c): The OECD guidance document on residues in livestock (series on pesticide 73) recommends three different approaches to derive MRLs for animal products; by applying a transfer factor (Tf), by intrapolation (It) or by linear regression (Ln). Fill in method(s) considered to derive the MRL proposals.
Conversion Factors (CF) for monitoring to risk assessment

For ruminants, no feeding studies are available although they are needed (data gap).
For poultry is pending the final outcome on the required metabolism study conducted with M26/M30 (OPEN)

Plant products:

Conversion factors for plant are not necessary since the residue definitions for monitoring and risk assessment are similar.

Processing factors (Regulation (EU) N° 283/2013, Annex Part A, points 6.5.2 and 6.5.3)

Dimethenamid and M26 was not found in edible parts >0.01mg/kg, while hydrolysis studies conducted with M30 showed the compound is stable under standard processing conditions. Thus processing factors are not needed for human consumption.

Consumer risk assessment (Regulation (EU) N° 283/2013, Annex Part A, point 6.9)
Including all uses (intended uses + MRLs according to Regulation (EC) No 396/2005).

| ADI | 0.04 mg/kg bw per day |
|-----|-----------------------|
| TMDI according to EFSA PRIMo | Highest TMDI: 1.9 % ADI (UK, toddler) |
| NTMDI, according to (to be specified) | Highest NTMDI: 2.4 % ADI (DE children, 2-4 years) |
| IEDI (% ADI), according to EFSA PRIMo | Not necessary |
| NEDI (% ADI), according to (to be specified) | Not necessary |
| Factors included in the calculations | None |

| ARfD |
|------|-------------------|
| IESTI (% ARfD), according to EFSA PRIMo | Highest IESTI: 5.7 % ARfD (BE children, melon) |
| NESTI (% ARfD), according to (to be specified) | Highest NESTI: <1.1 % ARfD (DE children, 2-4 years, apples/pears) |
| Factors included in IESTI and NESTI | None |

Consumer risk assessment limited to the representative uses

| ADI | 0.08 mg/kg bw |
|-----|----------------|
| TMDI (% ADI), according to EFSA PRIMo | Highest TMDI: 1.4 % ADI (UK, toddler) |
| NTMDI (% ADI), according to (to be specified) | Highest NTMDI: <1 % ADI (DE general population, 14-80 years) |
| IEDI (% ADI), according to EFSA PRIMo | Not necessary |
| NEDI (% ADI), according to (to be specified) | Not necessary |
| Factors included in the calculations | None |
| IESTI (% ARfD, according to EFSA PRIMo) | Highest IESTI: 2.3 % ARfD (DE adult, sweet corn) |
| NESTI (% ARfD, according to (to be specified) | Highest NESTI: <1 % ARfD (DE children, 2-4 years, sugar beet) |
| Factors included in IESTI and NESTI | None |
Additional contribution to the consumer intakes through drinking water resulting from groundwater metabolite(s) expected to be present above 0.75 µg/L

| Concentration | Intakes via drinking water |
|---------------|---------------------------|
| [µg/L]⁷       | [mg/kg bw per day]        | [% ADI] |
|               | Adult | Toddler | Infant | Adult | Toddler | Infant |
| M03           | 0.114 | 0.0000 | 0.0000 | 0.0002 | 0.01 | 0.03 | 0.04 |
| M23           | 0.309 | 0.0001 | 0.0000 | 0.0003 | 0.03 | 0.08 | 0.12 |
| M27           | 4.389 | 0.0015 | 0.0003 | 0.0006 | 0.37 | 1.10 | 1.65 |
| M31           | 13.677 | 0.0046 | 0.0013 | 0.0020 | 1.14 | 3.42 | 5.13 |
| M45           | 2.382 | 0.0008 | 0.0002 | 0.0036 | 0.20 | 0.60 | 0.89 |
| M47           | 1.179 | 0.0012 | 0.0003 | 0.0054 | 0.30 | 0.90 | 1.35 |
| M54           | 3.608 | 0.0010 | 0.0003 | 0.0047 | 0.26 | 0.78 | 1.17 |
| M62           | 3.131 | 0.0000 | 0.0001 | 0.0002 | 0.01 | 0.03 | 0.04 |
| Sum           | 28.789 | 0.0096 | 0.0028 | 0.0032 | 2.40 | 7.20 | 10.80 |

Proposed MRLs (Regulation (EU) No 283/2013, Annex Part A, points 6.7.2 and 6.7.3)

| Code(a) | Commodity/Group | MRL/Import tolerance(b) (mg/kg) and Comments |
|---------|-----------------|--------------------------------------------|
|         |                 |                                            |
| **Plant commodities** |                         |                                            |
| **Representative uses** |                         |                                            |
| 401050  | Sunflower       | 0.03*                                      | The cGAP of both NEU and SEU are supported by a sufficient number of field trials |
| 401060  | Oilseed rape    | 0.03*                                      | The cGAP of both NEU and SEU are supported by a sufficient number of field trials |
| 401070  | Soya bean       | 0.03*                                      | The cGAP of both NEU and SEU are supported by a sufficient number of field trials |
| 500030  | Maize           | 0.03*                                      | The cGAP of both NEU and SEU are supported by a sufficient number of field trials |
| 234000  | Sweet corn      | 0.03*                                      | Maize cob with husks at silage stage was used from maize trials. |
| 900010  | Sugar beet      | -                                          | The cGAP of both NEU and SEU are supported by a sufficient number of CFT field trials. No sufficient data available, three NEU residue trials and one SEU residue trials are required (data gap) |
| **MRL application** |                         |                                            |
| 0100000 | Tree nuts       | -                                          | At least three trials to confirm that no residues are present above the LOQ are required |
| 0130000 | Pome fruits     | -                                          | At least three trials to confirm that no residues are present above the LOQ are required |
| 0140000 | Stone fruits    | -                                          | No sufficient data available, three NEU residue trials and one SEU residue trials are required (data gap) |
| 0213010 | Beet root       | -                                          | No sufficient residue trials are available (see data gap on sugar beet) |
| 0213020 | Carrots         | -                                          | No trials were provided. |

⁷ parent equivalents
| Code   | Commodity/Group                        | MRL/Import tolerance (mg/kg) and Comments                                                                                                                                                                                                 |
|--------|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0213040 | Horseradish                           | 0.03* The extrapolation from sugar beet trials is possible only for NEU GAP. From SEU, no sufficient trials were provided.                                                                                                               |
| 0213100 | Swedes                                | 0.03*                                                                                                                                                                                                                                     |
| 0213110 | Turnips                               | 0.03*                                                                                                                                                                                                                                     |
| 0220040 | Spring onions/green onions and Welsh onions | 0.07 The cGAP of NEU is supported by a sufficient number of field trials. The GAP of SEU is covered by extrapolation from leeks.                                                                                                           |
| 0232000 | Cucurbits with edible peel            | 0.03* The cGAP of NEU is supported by a sufficient number of field trials.                                                                                                                                                               |
| 0233000 | Cucurbits with inedible peel          | 0.03*                                                                                                                                                                                                                                     |
| 0241000 | Flowering brassica                    | 0.03* The cGAP of NEU and SEU is supported by a sufficient number of field trials.                                                                                                                                                         |
| 0242000 | Head brassica                         | 0.03* The cGAP of both NEU and SEU are supported by a sufficient number of field trials                                                                                                                                                   |
| 0243000 | Leafy brassica                        | 0.09 The cGAP of NEU and SEU is supported by a sufficient number of field trials.                                                                                                                                                         |
| 0255000 | Witloof                               | - At least two trials to be provided demonstrating that no residues above LOQ occurs                                                                                                                                                     |
| 0260010 | Beans (with pods)                     | 0.03* The cGAP of NEU is supported by a sufficient number of field trials.                                                                                                                                                               |
| 0270060 | Leeks                                 | 0.03* The cGAP of SEU is supported by a sufficient number of field trials                                                                                                                                                               |
| 0300010 | Beans                                 | 0.03* The cGAP of NEU is supported by a sufficient number of field trials.                                                                                                                                                               |
| 0300040 | Lupine                                | 0.03* The cGAP of NEU is supported by a sufficient number of field trials, extrapolated from dry beans.                                                                                                                                  |
| 0500040 | Millet                                | 0.03* The cGAP of both NEU and SEU are supported by a sufficient number of field trials, extrapolated from maize                                                                                                                         |
| 0500080 | Sorghum                               | 0.03* The cGAP of both NEU and SEU are supported by a sufficient number of field trials, extrapolated from maize                                                                                                                         |
| 0900030 | Chicory root                          | 0.03* The extrapolation from sugar beet trials is possible only for NEU GAP. From SEU, no sufficient trials were provided.                                                                                                               |

**Animal commodities**

no MRLs proposed for the time being

(a): Commodity code number, as listed in Annex I of Regulation (EC) No 396/2005  
(b): MRLs proposed at the LOQ, should be annotated by an asterisk (*) after the figure.
Section 4 Environmental fate and behaviour

Route of degradation (aerobic) in soil (Regulation (EU) N° 283/2013, Annex Part A, point 7.1.1.1)

| Mineralisation after 100 days | 23.1 – 35.8 % after 120 d, \[^{14}\text{C}-\text{thienyl}]\text{-dimethenamid (n} = 2) |
| Non-extractable residues after 100 days | 17.5 – 23.5 % after 119 - 120 d, \[^{14}\text{C}-\text{thienyl}]\text{-dimethenamid–P (n} = 3) |
| Metabolites requiring further consideration | 39.5 – 43.5 % after 119 - 120 d, \[^{14}\text{C}-\text{thienyl}]\text{-dimethenamid (n} = 4) |
| | 39.9 – 43.0 % after 119 - 120 d, \[^{14}\text{C}-\text{thienyl}]\text{-dimethenamid–P (n} = 3) |

**Laboratory studies:**
- Met M656PH023 – 3.56 – 12.2 % after 14-69 d, max. after 58 d (n= 6), \[^{14}\text{C}-\text{thienyl}]\text{-dimethenamid & -dimethenamid–P}
- Met M656PH027 – 3.8 – 13.32 % at 21-120 d, max. after 32 d (n= 6), \[^{14}\text{C}-\text{thienyl}]\text{-dimethenamid & -dimethenamid–P}
- Met M656PH031 - 2.2 – 10.34 % at 14– 89 d, max. after 42 d (n= 6), \[^{14}\text{C}-\text{thienyl}]\text{-dimethenamid & -dimethenamid–P}

**Field dissipation studies:**
- Met M656PH023 - <1.25 % – 13.44 % at 0 – 122 d (n= 9), max. after 28 d, dimethenamid
- Met M656PH027 - <1.25 %– 7.99 % at 7 – 93 d (n= 9), max. after 7 d, dimethenamid
- Met M656PH031 – not determined

**Field degradation studies:**
- Met M656PH023 - <LOQ % – 4.20 % at 16 – 62 d (n= 6), max. after 28 - 31 d, dimethenamid-P
- Met M656PH027 - <LOQ % – 7.37 % at 28 – 185 d (n= 6), max. after 182 - 185 d , dimethenamid-P
- Met M656PH031 - <LOQ % – 8.56 % at 17 – 31 d (n= 6), max. after 28 d, dimethenamid-P

Route of degradation (anaerobic) in soil (Regulation (EU) N° 283/2013, Annex Part A, point 7.1.1.2)

| Mineralisation after 100 days | No data, not required for the representative uses applied for |
| Non-extractable residues after 100 days | No data, not required for the representative uses applied for |
| Metabolites that may require further consideration for risk assessment - name and/or code, % of applied (range and maximum) | No data, not required for the representative uses applied for |

\(^8\) n corresponds to the number of soils.
**Route of degradation (photolysis) on soil (Regulation (EU) N° 283/2013, Annex Part A, point 7.1.1.3)**

| Metabolites that may require further consideration for risk assessment - name and/or code, % of applied (range and maximum) |
|---|
| **Light:** Unknown metabolite (region 5): 5.5 % after 23 d (n= 1) - [14C-thienyl] - dimethenamid-P |
| **Dark control:** All < 2 % |

| Mineralisation at study end |
|---|
| **Light:** 5.8 & 12.3 % after 9 & 23 d, [14C-thienyl] - dimethenamid (n= 2) 10.1 % after 23 d, [14C-thienyl]- dimethenamid-P (n= 1) |
| **Dark control:** nd & 0.3 % after 9 & 23 d, [14C-thienyl] - dimethenamid (n= 2) 0.4 % after 23 d, [14C-thienyl]- dimethenamid-P (n= 1) |

| Non-extractable residues at study end |
|---|
| **Light:** 27.3 & 8.4 % after 9 & 23 d, [14C-thienyl] - dimethenamid (n= 2) 8.4 % after 23 d, [14C-thienyl]- dimethenamid-P (n= 1) |
| **Dark control:** 6.6 & 2.7 % after 9 & 23 d, [14C-thienyl] - dimethenamid (n= 2) 2.3 % after 23 d, [14C-thienyl]- dimethenamid-P (n= 1) |
Rate of degradation in soil (aerobic) laboratory studies active substance (Regulation (EU) N° 283/2013, Annex Part A, point 7.1.2.1.1 and Regulation (EU) N° 284/2013, Annex Part A, point 9.1.1.1)

Dark aerobic conditions

| Soil type | pH | T. (°C) | Moisture | Compound | DT<sub>50</sub> (d) | DT<sub>90</sub> (d) | DT<sub>50</sub> (d) 20 °C pF2 | Kinetic, chi² error | Ref.         |
|-----------|----|---------|----------|----------|------------------|-----------------|--------------------------|-----------------|-------------|
| BBA 2.2   | 5.8 (CaCl₂) | 20 | 40 % MWHC | DMTA-P | 12.8 | 42.55 | 9.8 | 3.5 % | SFO, 1995/ Platz, 2008 |
| BBA 2.3   | 6.6 (CaCl₂) | 20 | 40 % MWHC | DMTA-P | 13.3 | 44.1 | 9.0 | 4.6 % | SFO, 2008 |
| Flaach    | 7.49 (n.a.) | 20 | 40 % MWHC | DMTA-P | 7.69 | 25.56 | 4.8 | 2.3 % | SFO, 2008 |
| Elliot    | 6.4 (n.a.) | 23 | 75 % of FC | DMTA-P | 9.32 | 30.97 | 11.4 | 8.5 % | SFO, 2008 |
| Borstel   | 5.9 (CaCl₂) | 20 | 50 % MWHC | DMTA-P | 31.4 | 104.6 | 30.6 | 2.8 % | SFO, 2008 |
|           |       |     |           | S-enant. | 31.6 | 104.9 | - | 2.8 % | SFO, 2014 |
|           |       |     |           | R.-enant. | 30.9 | 102.8 | - | 1.5 % | SFO, 2014 |
| Calke     | 4.6 (CaCl₂) | 20 | pF2      | DMTA-P | 21.9 | 72.84 | 21.93 | 3.9 % | Unsworth, 2014 |

**Geometric mean (n = 6):** 12.2

pH dependent

n.a. information on buffer solution not available

(... not included in geometric mean

DMTA: dimethenamid, DMTA-P: dimethenamid-P
S-enant.: S-enantiomer of dimethenamid-P, R-enant.: S-enantiomer of dimethenamid-P

Rate of degradation in soil (aerobic) laboratory studies transformation products (Regulation (EU) N° 283/2013, Annex Part A, point 7.1.2.1.2 and Regulation (EU) N° 284/2013, Annex Part A, point 9.1.1.1)

Dark aerobic conditions

| Metabolite M656PH023 (modelling and persistence endpoints) |
|-----------------------------------------------------------|
| Soil type | pH | T. (°C) | Moisture | DT<sub>50</sub> (d) | DT<sub>90</sub> (d) | DT<sub>50</sub> (d) 20 °C pF2 | Kinetic, chi² error | Ref.         |
|-----------|----|---------|----------|------------------|-----------------|--------------------------|-----------------|-------------|
| BBA 2.2   | 5.8 (CaCl₂) | 20 | 40 % MWHC | 41 | 136 | 0.1435 | 31.5 | 9.3 % | Koenig, 1995/ Platz, 2008 |
| BBA 2.3   | 6.6 (CaCl₂) | 20 | 40 % MWHC | 23.8 | 79.1 | 0.1891 | 16.0 | 14.7 % | SFO, 2008 |
| Flaach    | 7.49 (n.a.) | 20 | 40 % MWHC | 24.1 | 80.18 | 0.1282 | 15.0 | 11.6 % | Koenig, 1996/ Platz, 2008 |
Peer review of the pesticide risk assessment of the active substance dimethenamid-P

| Soil       | Soil type       | pH   | T. (°C) | Moisture | DT$_{50}$ (d) | DT$_{90}$ (d) | f.f.$^*$ | DT$_{50}$ (d) 20 °C pF2 | Kinetic, chi$^2$ error | Ref.                |
|------------|----------------|------|---------|----------|---------------|---------------|---------|----------------------------|------------------------|----------------------|
| BBA 2.2    | Loamy Sand     | 5.8  | (CaCl$_2$) | 20   | 40 % MWHC | 61.3          | 203.5   | 0.1007                     | 47.1                   | SFO, 10.8 %          |
| BBA 2.3    | Sandy Loam     | 6.6  | (CaCl$_2$) | 20   | 40 % MWHC | 39.4          | 130.8   | 0.0572                     | 26.5                   | SFO, 11.6 %          |
| Flaach     | Sandy Clay loam | 7.49 | (n.a.) | 20   | 40 % MWHC | 37.7          | 125.1   | 0.0425                     | 23.5                   | SFO, 19.6 %          |
| Elliot     | Clay loam      | 6.4  | (n.a.) | 23   | 75 % of FC | 55.9$^3$     | 185.8$^3$ | 0.120$^5$                 | 78.1$^3$               | SFO, 12.1 %          |
|            |                |      |         |        |               | 63.6$^3$     | 211.4$^3$ | (0.100)$^5$              | (68.6)$^3$             | SFO, 26.9 %          |
| Borstel    | Sand           | 5.9  | (CaCl$_2$) | 20 | 50 % MWHC | 85.2          | 283     | 0.0918                     | 82.7                   | SFO, 5.6 %           |
| Calke      | Sandy loam     | 4.6  | (CaCl$_2$) | 20   | pF2           | 103.3        | 343.1   | 0.0385                     | 103.3                  | SFO, 12.4 %          |

DT$_{50}$ values

| Soil       | Soil type       | pH   | T. (°C) | Moisture | DT$_{50}$ (d) | DT$_{90}$ (d) | f.f.$^*$ | DT$_{50}$ (d) 20 °C pF2 | Kinetic, chi$^2$ error | Ref.                |
|------------|----------------|------|---------|----------|---------------|---------------|---------|----------------------------|------------------------|----------------------|
| BBA 2.2    | Loamy Sand     | 5.8  | (CaCl$_2$) | 20   | 40 % MWHC | 60.6          | 201.3   | 0.1251                     | 46.3                   | SFO, 10.0 %          |

Dark aerobic conditions

Metabolite M656PH031 (modelling and persistence endpoints)

| Soil       | Soil type       | pH   | T. (°C) | Moisture | DT$_{50}$ (d) | DT$_{90}$ (d) | f.f.$^*$ | DT$_{50}$ (d) 20 °C pF2 | Kinetic, chi$^2$ error | Ref.                |
|------------|----------------|------|---------|----------|---------------|---------------|---------|----------------------------|------------------------|----------------------|
| BBA 2.2    | Loamy Sand     | 5.8  | (CaCl$_2$) | 20   | 40 % MWHC | 60.6          | 201.3   | 0.1251                     | 46.3                   | SFO, 10.0 %          |

n.a. information on buffer solution not available
+ formation fraction from active substance to metabolite
(…) not included in geometric mean and arithmetic mean
§ soil incubation with DMTA-P, * soil incubation with DMTA

Dark aerobic conditions

Metabolite M656PH027 (modelling and persistence endpoints)

| Soil       | Soil type       | pH   | T. (°C) | Moisture | DT$_{50}$ (d) | DT$_{90}$ (d) | f.f.$^*$ | DT$_{50}$ (d) 20 °C pF2 | Kinetic, chi$^2$ error | Ref.                |
|------------|----------------|------|---------|----------|---------------|---------------|---------|----------------------------|------------------------|----------------------|
| BBA 2.2    | Loamy Sand     | 5.8  | (CaCl$_2$) | 20   | 40 % MWHC | 60.6          | 201.3   | 0.1251                     | 46.3                   | SFO, 10.0 %          |

n.a. information on buffer solution not available
+ formation fraction from active substance to metabolite
(…) not included in geometric mean and arithmetic mean
§ soil incubation with DMTA-P, * soil incubation with DMTA

Dark aerobic conditions

Metabolite M656PH031 (modelling and persistence endpoints)

| Soil       | Soil type       | pH   | T. (°C) | Moisture | DT$_{50}$ (d) | DT$_{90}$ (d) | f.f.$^*$ | DT$_{50}$ (d) 20 °C pF2 | Kinetic, chi$^2$ error | Ref.                |
|------------|----------------|------|---------|----------|---------------|---------------|---------|----------------------------|------------------------|----------------------|
| BBA 2.2    | Loamy Sand     | 5.8  | (CaCl$_2$) | 20   | 40 % MWHC | 60.6          | 201.3   | 0.1251                     | 46.3                   | SFO, 10.0 %          |

n.a. information on buffer solution not available
+ formation fraction from active substance to metabolite
(…) not included in geometric mean and arithmetic mean
§ soil incubation with DMTA-P, * soil incubation with DMTA

Dark aerobic conditions

Metabolite M656PH027 (modelling and persistence endpoints)

| Soil       | Soil type       | pH   | T. (°C) | Moisture | DT$_{50}$ (d) | DT$_{90}$ (d) | f.f.$^*$ | DT$_{50}$ (d) 20 °C pF2 | Kinetic, chi$^2$ error | Ref.                |
|------------|----------------|------|---------|----------|---------------|---------------|---------|----------------------------|------------------------|----------------------|
| BBA 2.2    | Loamy Sand     | 5.8  | (CaCl$_2$) | 20   | 40 % MWHC | 60.6          | 201.3   | 0.1251                     | 46.3                   | SFO, 10.0 %          |
| Soil Type | pH      | T. (°C) | Moisture | DT<sub>50</sub> (d) | DT<sub>90</sub> (d) | Kinetic, chi² error | DT<sub>50</sub> (d) 20 °C pF2 | Kinetic, chi² error at pF2 & 20°C | Ref.                  |
|-----------|---------|---------|----------|---------------------|---------------------|---------------------|-------------------------------|-------------------------------|------------------------|
| BBA       | Sandy Loam       | 6.6     | 20       | 40 % MWHC           | 44.3               | 0.1710              | 94.0                          | SFO, 10.1 %              | Platz, 2008             |
|            | Sandy Clay loam  | 7.49    | 20       | 40 % MWHC           | 33.1               | 0.1331              | 20.6                          | SFO, 4.5 %                | Koenig, 1996/ Platz, 2008 |
|            | Clay loam        | 6.4     | 23       | 75 % of FC          | 45.6§              | 0.110§              | 60.7§                         | SFO, 7.1 %                | Platz (2008)            |
|            | Clay loam        | 6.4     | 23       | 75 % of FC          | 49.35              | 0.109§              | 56.0§                         | SFO, 12.8 %               | Platz (2008)            |
| Borstel   | Sand              | 5.9     | 20       | 50 % MWHC           | 87.2               | 0.0588              | 82.2                          | SFO, 3.7 %                | Platz, 2008             |
| Calke     | Sandy loam       | 4.6     | 20       | pF2                 | 149.2              | 0.0390              | 149.2                         | SFO, 2.0 %                | Unsworth, 2014          |

**DT<sub>50</sub> values**

| Soil Type | pH      | T. (°C) | Moisture | DT<sub>50</sub> (d) | DT<sub>90</sub> (d) | Kinetic, chi² error | DT<sub>50</sub> (d) 20 °C pF2 | Kinetic, chi² error at pF2 & 20°C | Ref.                  |
|-----------|---------|---------|----------|---------------------|---------------------|---------------------|-------------------------------|-------------------------------|------------------------|
| Li10      | Loamy Sand       | 6.9 (H<sub>2</sub>O) | 20       | 40 % MWHC           | 37                  | 122                 | 29.1                          | SFO, 2.4 %                | Class & Heinz, 2014     |
| LUFA 5M   | Loamy Sand       | 7.9 (H<sub>2</sub>O) | 20       | 40 % MWHC           | 22                  | 73                  | 17.4                          | SFO, 6.7 %                | Class & Heinz, 2014     |
| LUFA 2.2  | Loamy Sand       | 5.9 (H<sub>2</sub>O) | 20       | 40 % MWHC           | 40                  | 334                 | 36.2                          | SFO, 7.4 %                | Class & Heinz, 2014     |

**Geometric mean (n=3)**

| Soil Type | pH      | T. (°C) | Moisture | DT<sub>50</sub> (d) | DT<sub>90</sub> (d) | Kinetic, chi² error | DT<sub>50</sub> (d) 20 °C pF2 | Kinetic, chi² error at pF2 & 20°C | Ref.                  |
|-----------|---------|---------|----------|---------------------|---------------------|---------------------|-------------------------------|-------------------------------|------------------------|
| Li10      | Loamy Sand       | 6.9 (H<sub>2</sub>O) | 20       | 40 % MWHC           | 95                  | 314                 | 74.9                          | SFO, 6.0 %                | Class & Heinz, 2014     |
| LUFA 5M   | Loamy Sand       | 7.9 (H<sub>2</sub>O) | 20       | 40 % MWHC           | 43                  | 142                 | 34.0                          | SFO, 15.8 %               | Class & Heinz, 2014     |
| LUFA      | Loamy Sand       | 5.9     | 20       | 40 % MWHC           | 87                  | 289                 | 62.3                          | SFO, 6.0 %                | Class & Heinz, 2014     |

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**Dark aerobic conditions**

**Metabolite M656PH054 (persistence and modelling endpoints)**

**Geometric mean (n=3)**

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**Dark aerobic conditions**

**Metabolite M656PH047 (persistence and modelling endpoints)**

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Dark aerobic conditions

Metabolite M656PH043 (persistence and modelling endpoints)

| Soil | Soil type | pH  | T. (°C) | Moisture | DT₅₀ (d) | DT₉₀ (d) | Kinetic, chi² error | DT₅₀ (d) 20 °C pF2 | Kinetic, chi² error at pF2 & 20°C | Ref. |
|------|-----------|-----|---------|----------|----------|----------|---------------------|----------------------|------------------------|------|
| Li10 | Loamy sand (H₂O) | 6.9 | 40 % MWHC | 21 | 154 | DFOP, 3.4 % | 25.4 | SFO, 11.4 % | Class & Heinz, 2014 |
| LUFA 5M | Loamy sand (H₂O) | 7.9 | 40 % MWHC | 10 | 34 | SFO, 8.1 % | 8.1 | SFO, 8.1 % |
| LUFA 2.2 | Loamy sand (H₂O) | 5.9 | 40 % MWHC | 30 | 364 | FOMC, 3.5 % | 31.6 | SFO, 10.1 % |

Geometric mean (n=3) 18.7

Rate of degradation field soil dissipation studies (Regulation (EU) N° 283/2013, Annex Part A, point 7.1.2.2.1 and Regulation (EU) N° 284/2013, Annex Part A, point 9.1.1.2.1)

| Field dissipation studies |
|---------------------------|

Dimethenamid (persistence endpoints)

| Trial no | Location | Soil type | Soil pH (n.a.) | Depth (cm) | DT₅₀ not.nor. (d) | DT₉₀ not.nor. (d) | Kinetic, Parameters, chi² error | Ref. |
|----------|----------|-----------|----------------|------------|-------------------|-------------------|-----------------------------|------|
| R10283   | Niederaula, Germany | Loamy sand | 6.5 | 40 | - ¹⁾ | - ¹⁾ | - ¹⁾ | - ¹⁾ | Fricker & Hertl, 1995a |
| R10284   | Goslar, Germany | Silty loam | 7.6 | 40 | - ¹⁾ | - ¹⁾ | - ¹⁾ | - ¹⁾ | |
| R10242   | Brevelay, France | Sandy silty loam | 5.9 | 50 | 1.93 | 21.80 | FOMC, α: 0.841, β: 1.057, 12.45 % | Fricker & Hertl, 1995b |
| R10243   | Degre, France | Loam | 6.0 | 50 | 35.12 | 116.69 | SFO, 17.9 % |
| R10244   | Vergoignan, France | Sand | 6.1 | 30 | 16.47 | 54.72 | SFO, 8.2 % | Carrier & Blanz, 1997 |
| R10245   | Cestas, France | Sandy loam | 4.9 | 30 | 16.22* | 53.87* | SFO, 16.0 % |
| R10246   | Budrio, Italy | Sandy loam | 7.4 | 50 | 10.08 | 33.60 | SFO, 17.8 % | Carrier, 1997 |
| R10247   | Mezzolara, Italy | Sandy loam | 7.4 | 50 | 9.06 | 30.08 | SFO, 16.3 % |
| R10248   | Argenta, Italy | Loam | 7.4 | 50 | 15.31 | 50.84 | SFO, 7.9 % |

n.a.: not available
* residue value at day 2 removed as outlier
¹⁾ no statistically reliable fit could be obtained
### Field degradation studies

#### Dimethenamid-P (persistence endpoints)

| Trial no | Location                     | Soil type      | pH (CaCl₂) | Depth (cm) | DT₅₀ not.norm. (d) | DT₉₀ not.norm. (d) | Kinetic; Parameters, chi² error | Ref.                                      |
|----------|------------------------------|----------------|------------|------------|--------------------|--------------------|---------------------------------|------------------------------------------|
| L110061  | Goch-Nierswalde, Germany     | Silt loam      | 5.85       | 90         | 20.4               | 67.7               | SFO, 10.5 %                     | Bayer & Marwitz (2014a)/Wiedemann (2014a) |
| L110062  | Stotzheim, France (North)    | Silt loam      | 7.11       | 90         | 17.6               | 58.6               | SFO, 17.3 %                     |                                          |
| L110063  | Meauzac, France (South)      | Sandy loam     | 7.55       | 90         | 14.5               | 48.1               | SFO, 13.8 %                     |                                          |
| L110064  | Utrera, Spain                | Sand           | 6.93       | 90         | 16.5               | 54.7               | SFO, 12.8 %                     |                                          |
| L110481  | Wilson, United Kingdom       | Silt loam      | 6.84       | 90         | 17.6               | 167                | FOMC, α: 0.955, β: 16.3, 14.2 % |                                          |
| L110482  | Lentzke, Germany             | Sandy loam     | 5.73       | 90         | 10.2               | 68.2               | FOMC, α: 1.36, β: 15.4, 9.3 %   |                                          |

### Field degradation studies after direct application of metabolite M656PH027

#### Metabolite M656PH027 (persistence endpoints)

| Trial no | Location                     | Soil type      | pH (CaCl₂) | Depth (cm) | DT₅₀ not.norm. (d) | DT₉₀ not.norm. (d) | Kinetic; Parameters, chi² error | Ref.                                      |
|----------|------------------------------|----------------|------------|------------|--------------------|--------------------|---------------------------------|------------------------------------------|
| L110330  | Goch-Nierswalde, Germany     | Silt loam      | 6.36       | 90         | 31.4               | 104                | SFO, 11.2 %                     | Bayer & Marwitz (2014b)/Wiedemann (2014a) |
| L110331  | Stotzheim, France (North)    | Silt loam      | 5.47       | 90         | 12                 | 40                 | SFO, 3.7 %                      |                                          |
| L110332  | Meauzac, France (South)      | Loam           | 7.49       | 90         | 19.4               | 64.3               | SFO, 14.6 %                     |                                          |
| L110333  | Utrera, Spain                | Loamy sand     | 6.92       | 90         | 23.7               | 78.6               | SFO, 9.6 %                      |                                          |

### Field degradation studies

#### Dimethenamid-P (modelling endpoints)

| Trial no | Location                     | Soil type      | pH (CaCl₂) | Depth (cm) | DT₅₀ 20 °C, pF2 (d) | Kinetic, chi² error at 20 °C, pF2 | Ref.                                      |
|----------|------------------------------|----------------|------------|------------|--------------------|-----------------------------------|------------------------------------------|
| L110061  | Goch-Nierswalde, Germany     | Silt loam      | 5.85       | 90         | 12.6               | SFO, 10.1 %                       | Bayer & Marwitz (2014b)/Wiedemann (2014b) |
| L110062  | Stotzheim, France (North)    | Silt loam      | 7.11       | 90         | 10.4               | SFO, 16.4 %                       |                                          |
| L110063  | Meauzac, France (South)      | Sandy loam     | 7.55       | 90         | 10.9               | SFO, 8.2 %                        |                                          |
| L110064  | Utrera, Spain                | Sand           | 6.93       | 90         | 9.7                | SFO, 8.0 %                        |                                          |
| L110481  | Wilson, United Kingdom       | Silt loam      | 6.84       | 90         | 13.8               | SFO, 10.4 %                       |                                          |
| L110482  | Lentzke, Germany             | Sandy loam     | 5.73       | 90         | 6.9                | SFO, 8.2 %                        |                                          |
Germany

Geometric mean (n = 6)  10.5
pH dependent  No

Field degradation studies after direct application of metabolite M656H027

| Metabolite M656H027 (modelling endpoints) |
|-------------------------------------------|
| **Trial no** | **Location** | **Soil type** | **pH (CaCl₂)** | **Depth (cm)** | **DT₅₀ 20 °C, pF2 (d)** | **Kinetic, chi² error at 20 °C, pF2** | **Ref.** |
| L110330 | Goch-Nierswalde, Germany | Silt loam | 6.36 | 90 | 14.6 | SFO, 10.3 % | Bayer & Marwitz (2014b)/ Wiedemann (2014b) |
| L110331 | Stotzheim, France (North) | Silt loam | 5.47 | 90 | 8.8 | SFO, 4.4 % | |
| L110332 | Meauzac, France (South) | Loam | 7.49 | 90 | 12.7 | SFO, 12.9 % | |
| L110333 | Utrera, Spain | Loamy sand | 6.92 | 90 | 25.9 | SFO, 9.2% | |
| Geometric mean (n = 4) | | | | | 14.3 | |
| pH dependent | No |

Combined laboratory and field kinetic endpoints for modelling (when not from different populations)

| Dimethenamid-P |
|----------------|
| DT₅₀ (d) | 11.3 |
| Geometric mean, n=12, laboratory and field data |

| Metabolite M656H027 |
|---------------------|
| Rate of degradation in soil transformation products, normalised geometric mean (if not pH dependent) |
| Laboratory and field data are not from the same population and should therefore be used separately |

| Soil accumulation (Regulation (EU) N° 283/2013, Annex Part A, point 7.1.2.2.2 and Regulation (EU) N° 284/2013, Annex Part A, point 9.1.1.2.2) |
|------------------|
| Soil accumulation and plateau concentration | No data, not required |

Rate of degradation in soil (anaerobic) laboratory studies active substance (Regulation (EU) N° 283/2013, Annex Part A, point 7.1.2.1.3 and Regulation (EU) N° 284/2013, Annex Part A, point 9.1.1.1)

| No data |

Rate of degradation in soil (anaerobic) laboratory studies transformation products (Regulation (EU) N° 283/2013, Annex Part A, point 7.1.2.1.4 and Regulation (EU) N° 284/2013, Annex Part A, point 9.1.1.1)

| No data |
Rate of degradation on soil (photolysis) laboratory active substance (Regulation (EU) N° 283/2013, Annex Part A, point 7.1.1.3)

Soil photolysis

| soil | Soil type    | compound     | conditions | DT_{50} (d) experimental | Kinetic, chi2 error | Ref.                  |
|------|--------------|--------------|------------|--------------------------|---------------------|-----------------------|
| Elliot | Clay loam   | Dimethenamid | light      | 27.21                    | SFO, 2.9 %          | Nietschmann & Yu, 1997 |
|       |              | Dimethenamid-P |           | 34.84                    | SFO, 3.6 %          |                       |
|       |              | Dimethenamid & Dimethenamid-P | Dark control | 3) | 3) |                       |

3) negligible degradation, concentration of active substance remained >90% until end of study

Soil adsorption active substance (Regulation (EU) N° 283/2013, Annex Part A, point 7.1.3.1.1 and Regulation (EU) N° 284/2013, Annex Part A, point 9.1.2.1)

Soil adsorption transformation products (Regulation (EU) N° 283/2013, Annex Part A, point 7.1.3.1.2 and Regulation (EU) N° 284/2013, Annex Part A, point 9.1.2.1)

Soil adsorption active substance (Regulation (EU) N° 283/2013, Annex Part A, point 7.1.3.1.1 and Regulation (EU) N° 284/2013, Annex Part A, point 9.1.2.1)

Parent dimethenamid-P

| Soil | Soil Type          | OC % | Soil pH (CaCl₂) | K_F (mL/g) | K_Foc (mL/g) | 1/n | Ref.                  |
|------|--------------------|------|-----------------|------------|--------------|-----|-----------------------|
| Eu-1 | Sandy clay loam    | 1.4  | 5.6             | 6.61       | 474          | 0.92| Tong & Su, 1997 & Addendum Paulick, 2007 |
| Eu-2 | Clay loam          | 2.03 | 8.0             | 2.51       | 123          | 0.96|                       |
| Eu-3 | Sandy loam         | 2.38 | 5.5             | 2.14       | 90           | 1.00|                       |
| Eu-4 | Silt loam          | 1.22 | 6.6             | 1.23       | 101          | 1.07|                       |
| Eu-5 | Sand               | 3.43 | 3.9             | 13.49      | 393          | 0.94|                       |
| US-1 | Clay               | 0.99 | 8.0             | 2.09       | 211          | 1.05|                       |
| US-2 | Clay loam          | 2.3  | 6.4             | 2.51       | 105          | 0.97|                       |
| US-3 | Loam               | 1.22 | 7.3             | 3.02       | 247          | 1.03|                       |
| US-4 | Sandy loam         | 0.35 | 7.0             | 0.72       | 205.71       | 1.04|                       |
| US-5 | Silt loam          | 1.51 | 6.7             | 1.95       | 129          | 0.96|                       |

Geometric mean (n=10) 2.58 177
Median (n=10) 167.4
Arithmetic mean (n=10) 207.9 0.994
pH dependence No

Soil adsorption transformation products (Regulation (EU) N° 283/2013, Annex Part A, point 7.1.3.1.2 and Regulation (EU) N° 284/2013, Annex Part A, point 9.1.2.1)

Metabolite M656PH023

| Soil | Soil Type | OC % | Soil pH (CaCl₂) | K_F (mL/g) | K_Foc (mL/g) | 1/n | Ref.                  |
|------|-----------|------|-----------------|------------|--------------|-----|-----------------------|
| Nierswalder Wildacker | Silt Loam | 1.85 | 5.7             | 0.14       | 7.62         | 0.68| Sacchi, 2013          |
| Li10 | Loamy Sand | 0.93 | 6.0             | 0.10       | 10.53        | 0.76|                       |
| LUFA 2.1 | Sand | 0.60 | 5.6             | 0.13       | 22.39        | 0.87|                       |
| LUFA 2.3 | Sandy Loam | 0.99 | 6.7             | 0.12       | 12.46        | 0.70|                       |
| LUFA 5M | Sandy Loam | 1.07 | 7.4             | 0.07       | 6.29         | 0.60|                       |

Geometric mean (n=5) 0.109 10.71
### Metabolite M656PH031

| Soil          | Soil Type  | OC % | Soil pH (CaCl₂) | K_F (mL/g) | K_Foc (mL/g) | l/n | Ref.    |
|---------------|------------|------|-----------------|------------|--------------|-----|---------|
| Nierswalder Wildacker | Silt loam | 1.85 | 5.7             | < 0.1*     | < 5          | -   | Sacchi, 2013 |
| Li 10         | Loamy sand | 0.93 | 6.0             | < 0.1*     | < 11         | -   |         |
| LUFA 2.1      | Sand       | 0.60 | 5.6             | < 0.1*     | < 17         | -   |         |
| LUFA 2.3      | Sandy loam | 0.99 | 6.7             | < 0.1*     | < 10         | -   |         |
| LUFA 5M       | Sandy loam | 1.07 | 7.4             | < 0.1*     | < 9          | -   |         |
| LUFA 2.1      | Sand       | 0.52 | 5.2             | < 0.1*     | < 19         | -   | Class, 2011  |
| Li 10         | Loamy sand | 0.88 | 5.9             | < 0.1*     | < 11         | -   |         |
| Nierswalder Wildacker | Silt loam | 1.63 | 6.5             | < 0.1*     | < 6          | -   |         |
| LUFA 2.3      | Sandy loam | 1.09 | 6.9             | < 0.1*     | < 9          | -   |         |
| La Gironda    | Silty clay loam | 3.84 | 7.5             | < 0.1*     | < 3          | -   |         |

* adsorption too poor to determine reliable Freundlich coefficients or exponents

### Metabolite M656PH027

| Soil          | Soil Type  | OC % | Soil pH (CaCl₂) | K_F (mL/g) | K_Foc (mL/g) | l/n | Ref.    |
|---------------|------------|------|-----------------|------------|--------------|-----|---------|
| Nierswalder Wildacker | Silt loam | 1.85 | 5.7             | 0.16       | 8.55         | 1.14| Sacchi, 2013 |
| Li 10         | Loamy sand | 0.93 | 6.0             | 0.09       | 9.89         | 0.97|         |
| LUFA 2.1      | Sand       | 0.60 | 5.6             | 0.05       | 7.73         | 1.00|         |
| LUFA 2.3      | Sandy loam | 0.99 | 6.7             | 0.11       | 10.96        | 0.98|         |
| LUFA 5M       | Sandy loam | 1.07 | 7.4             | 0.14       | 13.54        | 0.94|         |
| Sora          | Silt loam | 1.9  | 6.4             | 0.076      | 4.0          | 0.992|Class & Dorn, 2004 |
| LUFA 3A       | Loam       | 2.44 | 7.2             | 0.12       | 4.92         | 0.940|         |
| Birnbaum      | Loamy sand | 0.8  | 6.1             | 0.036      | 4.50         | 0.937|         |
| Bruch West    | Sandy loam | 2.72 | 7.3             | 0.030      | 1.10         | 0.910|         |

| Soil          | Soil Type  | OC % | Soil pH (CaCl₂) | K_F (mL/g) | K_Foc (mL/g) | l/n | Ref.    |
|---------------|------------|------|-----------------|------------|--------------|-----|---------|
| Lu 10         | Loamy sand | 0.75 | 4.1             | 0.229      | 30.5         | -   | Class & Walter, 2014a |
| LuFA 5M       | Loamy sand | 2.03 | 7.2             | < 0.1*     | < 5          | -   |         |
| LuFA 2.2      | Sandy loam | 1.47 | 5.4             | < 0.1*     | < 7          | -   |         |
| Li 10         | Loamy sand | 0.84 | 6.4             | < 0.1*     | < 12         | -   |         |
| La Gironda    | Sandy clay loam | 1.22 | 7.4             | < 0.1*     | < 8          | -   |         |

* adsorption too poor to determine reliable Freundlich coefficients or exponents

### Metabolite M656PH043

| Soil          | Soil Type  | OC % | Soil pH (CaCl₂) | K_d (mL/g) | K_ac (mL/g) | l/n | Ref.    |
|---------------|------------|------|-----------------|------------|--------------|-----|---------|
| Schifferstadt | Sand       | 0.75 | 4.1             | 0.229      | 30.5         | -   | Class & Walter, 2014a |
| LuFA 5M       | Loamy sand | 2.03 | 7.2             | < 0.1*     | < 5          | -   |         |
| LuFA 2.2      | Sandy loam | 1.47 | 5.4             | < 0.1*     | < 7          | -   |         |
| Li 10         | Loamy sand | 0.84 | 6.4             | < 0.1*     | < 12         | -   |         |
| La Gironda    | Sandy clay loam | 1.22 | 7.4             | < 0.1*     | < 8          | -   |         |

* adsorption too poor to determine reliable Freundlich coefficients or exponents

### Metabolite M656PH047

| Soil          | Soil Type  | OC % | Soil pH (CaCl₂) | K_d (mL/g) | K_ac (mL/g) | l/n | Ref.    |
|---------------|------------|------|-----------------|------------|--------------|-----|---------|
| Schifferstadt | Sand       | 0.75 | 4.1             | < 0.1*     | < 13         | -   | Class & Walter, 2014a |
| LuFA 5M       | Loamy sand | 2.03 | 7.2             | < 0.1*     | < 5          | -   |         |
| LuFA 2.2      | Sandy loam | 1.47 | 5.4             | < 0.1*     | < 7          | -   |         |
Mobility in soil column leaching active substance (Regulation (EU) N° 283/2013, Annex Part A, point 7.1.4.1.1) and Regulation (EU) N° 284/2013, Annex Part A, point 9.1.2.1)

Column leaching

| Soil        | Soil Type  | OC % | Soil pH (CaCl₂) | Kd (mL/g) | Koc (mL/g) | 1/n | Ref.          |
|-------------|------------|------|-----------------|-----------|------------|-----|---------------|
| Schifferstadt | Sand       | 0.75 | 4.1             | 0.217     | 28.9       | -   | Class & Walter, 2014a |
| LUFA 5M     | Loamy sand | 2.03 | 7.2             | < 0.1*    | < 5        | -   |               |
| LUFA 2.2    | Sandy loam | 1.47 | 5.4             | < 0.1*    | < 7        | -   |               |
| Li 10       | Loamy sand | 0.84 | 6.4             | < 0.1*    | < 12       | -   |               |
| La Gironda  | Sandy clay loam | 1.22 | 7.4             | < 0.1*    | < 8        | -   |               |

* adsorption too poor to determine reliable Freundlich coefficients or exponents

Mobility in soil column leaching transformation products (Regulation (EU) N° 283/2013, Annex Part A, point 7.1.4.1.2 and Regulation (EU) N° 284/2013, Annex Part A, point 9.1.2.1)

Aged resiudes leaching

| Soil        | Soil Type  | OC % | Soil pH (CaCl₂) | Kd (mL/g) | Koc (mL/g) | 1/n | Ref.          |
|-------------|------------|------|-----------------|-----------|------------|-----|---------------|
| BBA 2.1     | Sand       | 0.2  | 7.6             |           |            |     |               |
| BBA 2.2     | Sandy loam | 1.5  | 7.0             |           |            |     |               |
| BBA 2.3     | Loamy sand | 0.7  | 7.9             |           |            |     |               |
| Möhlin      | Silt loam  | 0.9  | 7.0             |           |            |     |               |
| Flaach      | Sandy clay | 0.8  | 8.3             |           |            |     |               |

Leachate:
3.3 – 40.2 % total radioactivity in leachate
n.d. – 33.4 % dimethenamid
1.4 – 0.5 % M656PH023
0.5 – 1.4 % M656PH027
0.1 – 2.5 % M656PH031

Ageing: 31 and 22 days at 20 °C and 40 % MWHC

Elution (mm): 200 mm deionised water
Time period (d): 2 d
soils:
BBA 2.1 (Sand, 0.2 % oc, pH 6.3)
BBA 2.2 (Sandy loam, 2.3 % oc, pH 7.0)

Leachate:
22.7 & 23.8 % total radioactivity in leachate
< 0.1 % dimethenamid
10.9 & 16.7 % M656PH023
0.7 & 2.4 % M656PH027
1.0 & 2.3 % M656PH031
Lysimeter / field leaching studies (Regulation (EU) N° 283/2013, Annex Part A, points 7.1.4.2 / 7.1.4.3 and Regulation (EU) N° 284/2013, Annex Part A, points 9.1.2.2 / 9.1.2.3)

| Lysimeter study Burgener, 1996 | Duration | 3 years (Mai 1992 - Mai 1995) |
|--------------------------------|----------|------------------------------|
| location                       | Itingen, Switzerland |
| Number of lysimeter            | 2 lysimeter, |
| Dimensions of lysimeter        | depth: 1.2 m, area: 1.0 m² |
| Crop cultivation               | Pre-emergence application one day after sowing of corn in May 1992 After harvest of corn, sowing of winter rye (first year) and winter whear (second year) in October 1992 and 1993 After harvest sowing of winter rape in August 1994 |
| Application rate (g/ha)        | 1 x 1440 g/ha on lysimeter 1 2 x 1440 g/ha on lysimeter 2 |
| Application date               | First application on the 21st May 1992 Second application on the 14th May 1993 |
| Soil properties of upper soil horizon (0-30 cm depth) | Borstel sandy soil: 83.5 % sand 10.9 % silt 5.6 % clay 1.05 % oc pH 6.1 |
| Total precipitation (mm)       | 3140 |
| Total amount of leachate (L)   | Lysimeter 1: 1178 Lysimeter 2: 1332 |
| Compound                       | Maximum estimated annual concentrations in the lysimeter leachate over the three years study duration [µg/L] |
| Dimethenamid-P                 | < 0.05 |
| M656PH003                      | 0.1 |
| M656PH010                      | 0.07 |
| M656PH023                      | 1 |
| M656PH027 (rotamer 1+2)        | 4 |
| M656PH032                      | 1.5 |
| M656PH043 (rotamer 1+2)        | 1.2 |
| M656PH045 (rotamer 1+2)        | 2 |
| M656PH047 (rotamer 1+2)        | 1.2 |
| M656PH049                      | 1 |
| M656PH050                      | 0.5 |
| M656PH051                      | 1.1 |
| M656PH052                      | 0.9 |
| M656PH053 (isomer 1)           | 1.6 |
| M656PH053 (isomer 2)           | 2 |
| M656PH054 (rotamer 1+2)        | 3.3 |
| M656H055                       | 0.7 |
| M656PH059 (isomer 1)           | 0.8 |
| M656PH059                      | 0.4 |
Hydrolytic degradation (Regulation (EU) N° 283/2013, Annex Part A, point 7.2.1.1)
Hydrolytic degradation of the active substance and metabolites > 10 %

| pH       | Stability at 25 °C |
|----------|--------------------|
| pH 5     |                    |
| pH 7     |                    |
| pH 9     |                    |

Aqueous photochemical degradation (Regulation (EU) N° 283/2013, Annex Part A, points 7.2.1.2 / 7.2.1.3)

Photolytic degradation of active substance and metabolites above 10 %

| Experimental: |
|---------------|
| DT_{50} : 15.56 d $[^{14}$C-thienyl]- dimethenamid-P, light intensity: $1.1 \times 10^3$ W/m$^2$ |
| DT_{50} : 17.29 d $[^{14}$C-thienyl]- dimethenamid, light intensity: $8.55 \times 10^2$ W/m$^2$ |
| No metabolites < 5 %, $[^{14}$C-thienyl]- dimethenamid-P & - dimethenamid |

Calculation:
Estimated DT$_{50}$: 0.3 – 0.2 d (April – May, Central European conditions)

Quantum yield of direct phototransformation in water at $\Sigma$ > 290 nm

0.007402 mol Einstein$^{-1}$

‘Ready biodegradability’ (Regulation (EU) N° 283/2013, Annex Part A, point 7.2.2.1)

Readily biodegradable (yes/no)

No data submitted, substance considered not readily biodegradable

Aerobic mineralisation in surface water (Regulation (EU) N° 283/2013, Annex Part A, point 7.2.2.2 and Regulation (EU) N° 284/2013, Annex Part A, point 9.2.1)

| Parent dimethenamid-P |
|------------------------|
| System identifier (indicate fresh, estuarine or marine) | pH water | pH sed. | T. $^{b)}$ (°C) | DT$_{50}$ | DT$_{90}$ | Kinetic model | DT$_{50}$ | DT$_{90}$ | Kinetic model |
| whole system (suspended sediment test $^{a)}$) | Water (pelagic test) |
| Pond, Biederthal | 7.86 | - | 20 | 97.8 % (low dose) & 94.8 % (high dose) of dimethenamid-P remained in the water at the end of the incubation; no significant degradation of dimethenamid-P took place, thus no degradation rates were calculated |

$^{a)}$ No suspended sediment was added to the system

$^{b)}$ Temperature of incubation = temperature of the environmental media collected or std temperature of 20 °C
## Water / sediment study (Regulation (EU) No 283/2013, Annex Part A, point 7.2.2.3 and Regulation (EU) No 284/2013, Annex Part A, point 9.2.2)

**Parent dimethenamid-P**

| Water/ Sediment System | T. (°C) | Whole system | Reference |
|------------------------|--------|--------------|-----------|
|                        |        | DegT₅₀ (d) | DegT₉₀ (d) | Kinetic model |
| River Rhine, DMTA      | 20     | 19.8       | 65.8       | SFO         |
| Pond Anwil, DMTA       | 20     | 35.1       | 116.5      | SFO         |
| River Rhine, DMTA-P    | 20     | 28         | 93.1       | SFO         |
| **Geometric Mean (n=3)** |       | **26.9**   |            |             |

DMTA dimethenamid, DMTA-P: dimethenamid-P

**Parent dimethenamid-P**

| Distribution | 18.15 – 22.8 % maximum in the sediment at day 7 – 14 with subsequent decline to 2 – 4.6 % at the end of the studies |
|--------------|-------------------------------------------------------------------------------------------------------------------|
| Water/ Sediment System | T. (°C) | Water | Sediment | Reference |
|                        |        |        |          |           |
|                        |        | DisT₅₀ (d) | DisT₉₀ (d) | Kinetic model | DisT₅₀ (d) | DisT₉₀ (d) | Kinetic model |
| River Rhine, DMTA      | 20     | 11.1   | 57.7     | FOMC        | 28.5       | 94.7       | SFO         |
| Pond Anwil, DMTA       | 20     | 21.4   | 86.2     | DFOP        | 38.2       | 126.9      | SFO         |
| River Rhine, DMTA-P    | 20     | 15.36  | 74.99    | DFOP        | 38         | 126        | SFO         |

DMTA dimethenamid, DMTA-P: dimethenamid-P

**Metabolites**

- **Water phase:**
  - Met M656P H023 – max. 9.6 % on d 100 (end of study)
  - Met M656P H027- max. 6.3 % on d 100 (end of study)
  - Met M656P H003 – max. 9.1 % on d 105 (end of study)

- **Sediment phase:**
  - Met M656P H003 – max. 6 % on d 105 (end of study)

**Mineralisation and non extractable residues (from parent dosed experiments)**

| Water / sediment system | Mineralisation at end of study | Max. non-extractable residues in sed. | Non-extractable residues at end of study |
|-------------------------|--------------------------------|---------------------------------------|----------------------------------------|
|                         | x% AR | after d | x% AR | after d | x% AR | after d |
| River Rhine, DMTA       | 2.7   | 105     | 53.5  | 105     | 53.5  | 105     |
| Pond Anwil, DMTA        | 2.1   | 105     | 49.3  | 105     | 49.3  | 105     |
| River Rhine, DMTA-P     | 6.6   | 100     | 36.2  | 77      | 35.6  | 100     |

DMTA dimethenamid, DMTA-P: dimethenamid-P

**Fate and behaviour in air (Regulation (EU) No 283/2013, Annex Part A, point 7.3.1)**

- **Direct photolysis in air:** Not studied - no data requested
- **Photochemical oxidative degradation in air:**
  - DT₅₀ of 0.2 d derived by the Atkinson model (version 1.92 for a 12 h day and a OH concentration of 1.5 10⁶
| Volatilisation |
|----------------|
| Dimethenamid-P vapour pressure: $3.47 \times 10^{-3}$ Pa (20 °C), thus substance is semivolatile (volatilisation from plant surfaces and soil expected) |
| from plant surfaces (BBA guideline): 26.1 % after 24 hours |
| from soil surfaces (BBA guideline): no data |

| Metabolites |
|-------------|
| No data |

**Residues requiring further assessment (Regulation (EU) N° 283/2013, Annex Part A, point 7.4.1)**

Environmental occurring residues requiring further assessment by other disciplines (toxicology and ecotoxicology) and or requiring consideration for groundwater exposure:

| Soil: Dimethenamid-P, M656PH023, M656PH027 and M656PH031 |
| Surface water: Dimethenamid-P, M656PH003, M656PH023, M656PH027 and M656PH031 |
| Sediment: Dimethenamid-P |
| Groundwater: Dimethenamid-P, M656PH003, M656PH010, M656PH023, M656PH027 and M656PH031, M656PH032, M656PH043, M656PH045, M656PH047, M656PH049, M656PH050, M656PH051, M656PH052 (sum of isomers), M656PH053 (isomer 1 und 2), M656PH054, M656P055, M656PH059 (isomer 1, 2 und 3) and M656PH062 |
| Air: Dimethenamid-P |

**Definition of the residue for monitoring (Regulation (EU) N° 283/2013, Annex Part A, point 7.4.2)**

See section 5, Ecotoxicology

**Monitoring data, if available (Regulation (EU) N° 283/2013, Annex Part A, point 7.5**

| Soil: |
| No data |
Groundwater monitoring in Germany:
- 20 groundwater wells with shallow groundwater (1 to 10 m distance of groundwater to soils surface) in four maize growing regions in Germany: Southern Upper Rhine Valley (4 wells), Lower Bavarian Hilly Country (5 wells), Altmark/Prignitz region (3 wells), Northwest German Lowlands (8 wells)
- Free provision of the plant protection products Clio® Super or Clio® Top Pack containing dimethenamid-P to farmers within a distance of approx. 1 km up-gradient from the monitoring wells in 2007, 2008 and 2009, recording of size and location of fields treated with dimethenamid-P
- Application rates of Clio® Super or Clio® Top Pack equivalent to 968.4 g/ha dimethenamid-P in 2007 & 2008 and 807 g/ha dimethenamid-P in 2009 to maize, growth stage 12-16
- Groundwater sampling bimonthly interval between May 2007 and March 2010 and on a quarterly interval between June 2010 and March 2013. Modelling of response time showed that at 11 of the monitored wells all concentration peaks of the sponsored applications seasons should have reached the wells during sampling time, at 5 additional wells two of the three application peaks reached the well during the sampling time.
- Results:
  - M656PH003, M656PH010, M656PH031, M656PH032 and M656PH043: no detections > LOQ
  - M656PH054: detection at 1 well, maximum concentration of 0.047 µg/L
  - M656PH045: detection at 2 wells, maximum concentration of 0.045 µg/L
  - M656PH023: detection at 3 wells, maximum concentration of 0.379 µg/L
  - M656PH047: detection at 4 wells, maximum concentration of 0.149 µg/L
  - M656PH027: detection at 5 wells, maximum concentration of 1.680 µg/L

Groundwater monitoring in the Netherlands:
- 80 groundwater wells with shallow groundwater (depth of groundwater not provided) corn producing areas of the province North Brabant, The Netherlands
- No information provided on the amount of use and the duration of use of dimethenamid-P containing products in the catchment of the wells, the distance of the wells to areas treated with dimethenamid-P and the amount of areas treated with dimethenamid-P upstream of the wells
- No information provided on the hydrogeology, pedology or climate of the agricultural area or on the catchment of the wells or their response time
- Groundwater sampling once in the period from 08 January to 16 April 2013
- Results:
  - M656PH003, M656PH032 and M656PH043: no detections > LOQ
  - M656PH010 and M656PH031: detection at 1 well, maximum concentration of 0.033 and 0.042 µg/L, respectively
  - M656PH047: detection at 3 wells, maximum concentration of 0.459 µg/L
  - M656PH054: detection at 5 wells, maximum concentration of 0.076 µg/L
  - M656PH045: detection at 13 wells, maximum concentration of 0.213 µg/L
  - M656PH023: detection at 23 wells, maximum concentration of 0.810 µg/L
  - M656PH027: detection at 30 wells, maximum concentration of 1.209 µg/L
Groundwater monitoring in Germany (open literature study):
- Measurements of M656PH027 and M656PH023 from 2006 to 2008 at 228 and 232 monitoring points located in three federal states of Germany
- No information provided on the amount of use or the duration of use of dimethenamid-P containing products in the catchment of the wells, the distance of the wells to areas treated with dimethenamid-P and the amount of areas treated with dimethenamid-P upstream of the wells
- No information provided on the hydrogeology, pedology or climatic conditions of the areas upstream of the wells or the depth of the groundwater level tapped by the wells; no information provided on the catchment of the wells or their response time
- M656PH027 and M656PH023 were not detected in concentrations >1 µg/L in any of the groundwater samples

Surface water monitoring in five European rivers:
- Measurements of dimethenamid-P and the metabolites M656H003, M656H027, M656H023, and M656H031 in the five European rivers, the Rott river (eastern Bavaria, Germany), the Adda and Oglio rivers (northern tributaries of the Po river, Italy) and the Sió and Danube river (central-western part of Hungary) since they all drain areas with relatively intensive cultivation of corn
- No information provided on the catchments and on the area of the catchments that was used for cultivation with crops and the area that were treated with dimethenamid-P was provided. Information on the amount of dimethenamid-P used in the catchments also missing
- Surface water samples were taken in 2009, biweekly during the application season and weekly thereafter for five months (April to beginning of September in Italy, May to end of September in Hungary) or weekly from May to November (Germany)
- Results:
  - Dimethenamid-P reached maximum concentration 0.46 µg/L (Germany, Rott) to 0.51 µg/L (Hungary, Sió), while lower peak concentrations were measured in the other 3 rivers (<LOQ to 0.02 µg/L)
  - M656PH003 was detected once in the river Rott with a concentration of 0.02 µg/L
  - M656PH023 was detected with a maximum concentrations of 0.11 µg/L at river Rott and lower concentrations at the other 4 rivers (n.d. – 0.01 µg/L)
  - M656PH027 was detected with a maximum concentrations of 0.13 µg/L at river Rott and lower concentrations at the other 4 rivers (<LOQ – 0.02 µg/L)
  - M656PH031 was detected with a maximum concentrations of 0.12 µg/L at river Rott and lower concentrations at the other 4 rivers (<LOQ – 0.01 µg/L)

Surface water monitoring in the Lake Geneva (open literature study):
- Water samples from the Lake Geneva were collected at 9 different depths on April 26, 2004, April 26, 2005 and September 6, 2004 from a site in the middle of the lake
- No information provided on the catchment of the Lake Geneva and on the area of the catchment that is used for agriculture and that was treated with dimethenamid-P or on the amount of dimethenamid-P used in the catchment in the Lake
- Dimethenamid was detected only at one sampling date at both depth ranges with an average concentration of 0.001 µg L⁻¹

Surface water monitoring in a small area of the catchment of the Lake Greifensee, Switzerland (open literature study):
- Surface water measurements in a small area of the catchment of the Lake Greifensee, 25 km southeast of Zurich, Switzerland, which drains into the river Aa Mönchaltorf
- Dimethenamid was investigated over a period of 67 days after a controlled application of 0.75 kg ha⁻¹ on 13 cornfields on May 8, 2000
- First 9 days after application remained very dry with only 3 mm of rain. During the
two following weeks, three rain events resulted in a total of 51 mm precipitation. However, only the 6th rainfall event (46 mm, ~20-30 days after application) caused the first substantial hydrolytic response from the catchment as well as major loss of herbicides

- total mass losses of dimethenamid from the fields of the catchment accounted for 0.27% of its total amount applied
- dissipation of dimethenamid from soil was described by first-order kinetics with a field DT50 of 13 days as median value from 11 fields

Air monitoring in Central France (open literature study):
- dimethenamid-P was measured on three rural sites (Saint Martin d’Auxigny, Oysonville and Saint Aignan) and two urban sites (Tour and Orléans) in 3 sampling campaigns in 2006, 2007 and 2008
- The rural sampling site at Saint Martin d’Auxigny was surrounded by orchards, the agricultural area of the sampling site Saint Aignan was dominated by vineyards and the agricultural area of the sampling site Oysonville was dominated by arable crops such as maize, wheat, soybean, barley and sunflowers
- no information provided, if dimethenamid-P was really applied in any of the areas close to the sampling site during the sampling campaigns, the size and distance of any treated areas or the amount of dimethenamid-P used on any areas in vicinity of the sampling site
- Dimethenamid was detected at a low frequency of 2% at concentrations ranging from 0.16 to 0.74 ng m⁻³ in the 262 air samples
### PEC soil (Regulation (EU) N° 284/2013, Annex Part A, points 9.1.3 / 9.3.1)

| Active substance | dimethenamid-P |
|------------------|----------------|
| Crop/ Application scenario | 864 g a.s./ha pre-emergence application to maize |

| PEC(s) (mg/kg) | Single application | Single application | Multiple application | Multiple application |
|---------------|-------------------|-------------------|---------------------|---------------------|
| Initial       | Actual            | Time weighted average | Actual              | Time weighted average |
|               | 1.152             |                   | 1.152               |                     |
| Plateau concentration | <0.001 mg/kg after 10 yr |                  |                     |                     |

| Crop/ Application scenario | 500 g a.s./ha pre-emergence application to winter oilseed rape |

| PEC(s) (mg/kg) | Single application | Single application | Multiple application | Multiple application |
|---------------|-------------------|-------------------|---------------------|---------------------|
| Initial       | Actual            | Time weighted average | Actual              | Time weighted average |
|               | 0.667             |                   | 0.667               |                     |
| Plateau concentration | <0.001 mg/kg after 10 yr |                  |                     |                     |

| Metabolite | M656PH023 |
|------------|-----------|
| Method of calculation | Molecular weight relative to the parent: 0.983 |
| DT<sub>50</sub> (d): 63.9 days |
| Kinetics: SFO |
| Lab: longest, non-normalized DT<sub>50</sub> value |

| Application data | Product BAS 656 12 H with 720 g/L dimethenamid-P: |
|------------------|---------------------------------------------------|
| Parent dimethenamid-P | DT<sub>50</sub> (d): 35.1 days |
| Method of calculation | Kinetics: SFO |
| Field data: longest, non-normalized DT<sub>50</sub> value |

| Application data | Product BAS 830 01 H with 333 g/L dimethenamid-P & 167 g/L quinmerac: |
|------------------|---------------------------------------------------|
| Parent dimethenamid-P | DT<sub>50</sub> (d): 63.9 days |
| Method of calculation | Kinetics: SFO |
| Lab: longest, non-normalized DT<sub>50</sub> value |

- Crop: maize
- Depth of soil layer: 5 cm
- Soil bulk density: 1.5 g/cm<sup>3</sup>
- % plant interception: 0 % (Pre-emergence)
- Number of applications: 1
- Application rate(s): 864 g a.s./ha

- Crop: winter oilseed rape
- Depth of soil layer: 5 cm
- Soil bulk density: 1.5 g/cm<sup>3</sup>
- % plant interception: 0 % (Pre-emergence)
- Application rate(s): 500 g dimethenamid-P/ha (+ 250 g quinmerac/ha)
Application rate assumed: 114.4 g/ha (assumed M656PH023 is formed at a maximum of 13.44% of the applied dose of 864 g a.s./ha)

Product BAS 830 01 H with 333 g/L dimethenamid-P & 167 g/L quinmerac:
Application rate assumed: 66.0 g/ha (assumed M656PH023 is formed at a maximum of 13.44% of the applied dose of 500 g a.s./ha)

| Metabolite | M656PH023 |
|------------|-----------|
| Crop/ Application scenario | 864 g a.s./ha pre-emergence application to maize |
| PEC\(_{(s)}\) (mg/kg) | Single application Actual | Single application Time weighted average | Multiple application Actual | Multiple application Time weighted average |
| Initial | 0.1525 | | 0.1533 | |
| Plateau concentration | 0.0007 mg/kg after 10 yr | |

Crop/ Application scenario 500 g a.s./ha pre-emergence application to winter oilseed rape

| Metabolite | M656PH027 |
|------------|-----------|
| Method of calculation | Molecular weight relative to the parent: 1.165 |
| DT\(_{50}\) (d): 31.3 days |
| Kinetics: SFO |
| Field: longest, non-normalized DT\(_{50}\) from field studies |

Application data

Product BAS 656 12 H with 720 g/L dimethenamid-P:
Application rate assumed: 134.1 g/ha (assumed M656PH027 is formed at a maximum of 13.32% of the applied dose of 864 g a.s./ha)

Product BAS 830 01 H with 333 g/L dimethenamid-P & 167 g/L quinmerac:
Application rate assumed: 77.6 g/ha (assumed M656PH027 is formed at a maximum of 13.32% of the applied dose of 500 g a.s./ha)
### Metabolite M656PH027

| Crop/ Application scenario | 864 g a.s./ha  pre-emergence application to maize |
|----------------------------|--------------------------------------------------|
| **PEC (s)**<br>(mg/kg)     | **PEC (s)**<br>(mg/kg)                           |
| Single application         | Single application                               |
| Actual                     | Time weighted average                            |
| Actual                     | Actual                                           |
| Initial                    | 0.179                                            |
| Plateau concentration      | < 0.001 mg/kg after 10 yr                        |

### Metabolite M656PH031

| Crop/ Application scenario | 500 g a.s./ha  pre-emergence application to winter oilseed rape |
|----------------------------|---------------------------------------------------------------|
| **PEC (s)**<br>(mg/kg)     | **PEC (s)**<br>(mg/kg)                                       |
| Single application         | Single application                                            |
| Actual                     | Time weighted average                                         |
| Actual                     | Actual                                                        |
| Initial                    | 0.104                                                         |
| Plateau concentration      | < 0.001 mg/kg after 10 yr                                     |

#### Metabolite M656PH031

- **Metabolite M656PH031**
- **Method of calculation**
  - Molecular weight relative to the parent: 1.258
  - DT$_{50}$ (d): 103.3 days
  - Kinetics: SFO
  - Lab: longest, non-normalized DT$_{50}$ value

#### Application data

- **Product BAS 656 12 H with 720 g/L dimethenamid-P**
  - Application rate assumed: 112.4 g/ha (assumed M656PH031 is formed at a maximum of 10.34 % of the applied dose of 864 g a.s./ha)

- **Product BAS 830 01 H with 333 g/L dimethenamid-P & 167 g/L quinmerac**
  - Application rate assumed: 65.0 g/ha (assumed M656PH031 is formed at a maximum of 10.34 % of the applied dose of 500 g a.s./ha)

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### Metabolite M656PH031

| Crop/ Application scenario | 864 g a.s./ha  pre-emergence application to Maize |
|----------------------------|--------------------------------------------------|
| **PEC (s)**<br>(mg/kg)     | **PEC (s)**<br>(mg/kg)                           |
| Single application         | Single application                               |
| Actual                     | Time weighted average                            |
| Actual                     | Actual                                           |
| Initial                    | 0.150                                            |
| Plateau concentration      | 0.0035 mg/kg after 10 yr                         |
| Plateau concentration      | 0.1534                                           |
Crop/ Application scenario | 500 g a.s./ha pre-emergence application to winter oilseed rape
---|---
PEC<sub>(s)</sub> (mg/kg) | Single application Actual | Single application Time weighted average | Multiple application Actual | Multiple application Time weighted average
Initial | 0.0867 | | 0.0902 | |
Plateau concentration | 0.0035 mg/kg after 10 yr | | | |
PEC ground water (Regulation (EU) N° 284/2013, Annex Part A, point 9.2.4.1)

| Property | Value |
|----------|-------|
| Version control no. of FOCUS software: | FOCUS PELMO 5.5.3 |
| Molecular weight (g/mol): Parent dimethenamid-P | 275.8 |
| $K_{OC}$ (mL/g): Parent dimethenamid-P | 167.4 (Median, $n=10$) |
| Freundlich exponent $1/n$: Parent dimethenamid-P | 0.994 (arithmetic mean, $n=10$) |
| $DT_{50}$ (d): Parent dimethenamid-P | 11.3 (geometric mean of normalised laboratory and field $DT_{50}$ values, $n=12$) |
| Crop uptake factor: Parent dimethenamid-P | 0.5 |
| Molecular weight (g/mol): Metabolite M656PH023 | 271 |
| $K_{OC}$ (mL/g): Metabolite M656PH023 | 11.9 (arithmetic mean, $n=5$) |
| Freundlich exponent $1/n$: Metabolite M656PH023 | 0.722 (arithmetic mean, $n=5$) |
| $DT_{50}$ (d): Metabolite M656PH023 | 28.2 (geometric mean of normalised laboratory $DT_{50}$ values, $n=5$) |
| Formation fraction from dimethenamid-P to M656H023: | 0.138 (arithmetic mean of laboratory data, $n=5$) |
| Crop uptake factor: | 0 |
| Molecular weight (g/mol): Metabolite M656PH031 | 347 |
| $K_{OC}$ (mL/g): Metabolite M656PH031 | 1 (default) |
| Freundlich exponent $1/n$: Metabolite M656PH031 | 0.9 (default) |
| $DT_{50}$ (d): Metabolite M656PH031 | 51.94 (geometric mean of normalised laboratory $DT_{50}$ values, $n=6$) |
| Formation fraction from dimethenamid-P to M656H023: | 0.0751 (arithmetic mean of laboratory data, $n=6$) |
| Crop uptake factor: | 0 |
| Molecular weight (g/mol): Metabolite M656PH027 | 321.4 |
| $K_{OC}$ (mL/g): Metabolite M656PH027 | 7.2 (arithmetic mean, $n=5$) |
| Freundlich exponent $1/n$: Metabolite M656PH027 | 0.979 (arithmetic mean, $n=5$) |
| $DT_{50}$ (d): Metabolite M656PH027 | 14.3 (geometric mean of normalised laboratory $DT_{50}$ values, $n=4$) |
| Formation fraction from dimethenamid-P to M656H027: | 0.1062 (arithmetic mean of laboratory data, $n=6$) |
| Formation fraction from M656H031 to M656H027: 1.0 (default) | |
| Crop uptake factor: | 0 |

Metabolites M656PH003 (M3), M656PH010 (M10), M656PH032 (M32), M656PH043 (M43), M656PH045 (M45), M656PH047 (M47), M656PH049 (M49), M656PH050 (M50), M656PH051 (M51), M656PH052 (M52), M656PH053 (M53), M656PH054 (M54), M656H055 (M55), M656PH059 (M59) and M656PH062 (M62) only found in the lysimeter leachate

Estimated using transfer factors derived from the ratio of the modelled groundwater concentration of M656H027 (calc) and the M656H027 concentrations measured in the lysimeter (meas):

1. Transfer factor = M656H027_{calc}/ M656H027_{meas}
2. Metabolite X_{calc} = Transfer factor * Metabolite X_{meas}

Metabolite X= Metabolite in question only found in the lysimeter leachate but not in soil studies

These calculations were considered not acceptable by the peer review. However, it was agreed that the PEC_{GW} for these metabolites based on the lysimeter transfer factors should remain in the list of endpoints.
and be used to provide indicative levels for the non
relevance assessment of the metabolites in
groundwater.

| Application rate | Product BAS 656 12 H with 720 g/L dimethenamid-P: |
|------------------|-----------------------------------------------------|
| Crop: maize      | BBCH: 00-09 (pre-mergence) & 10-16 (post-mergence) |
|                  | Application rate (g a.s./ha): 1 x 864              |
|                  | Canopy interception (%): 0 (pre-mergence) & 25 (post-
|                  | emergence)                                         |
|                  | Soil relevant application rate (g a.s./ha): 864 (pre-
|                  | mergence) & 648 (post-mergence)                   |
|                  | Time of application: 7 days before and after pre-def-
|                  | ined crop emergence of the respective FOCUS loca-
|                  | tions                                             |
| Crop: soybeans &| BBCH: 00-09 (pre-mergence)                         |
| sunflowers       | Application rate (g a.s./ha): 1 x 864              |
|                  | Canopy interception (%): 0 (pre-mergence)          |
|                  | Soil relevant application rate (g a.s./ha): 864 (pre-
|                  | mergence)                                          |
|                  | Time of application: 7 days before pre-defined crop |
|                  | emergence of the respective FOCUS locations       |
| Crop: sugar beet | BBCH: 00-09 (pre-mergence)                         |
|                  | Application rate (g a.s./ha): 1 x 864              |
|                  | Canopy interception (%): 0 (pre-mergence)          |
|                  | Soil relevant application rate (g a.s./ha): 864 (pre-
|                  | mergence)                                          |
|                  | Time of application: 7 days before pre-defined crop |
|                  | emergence of the respective FOCUS locations       |

**Tier 2b**: For pre-mergence application of BAS 656 12 H to sugar beet, additional PECGW values were calculated assuming only one application of BAS 656 12 H every second or every third year.

| Crop: sugar beet | BBCH: 12-18 (post-mergence) |
|------------------|----------------------------|
|                  | Application rate (g a.s./ha): 1 x 720 |
|                  | Canopy interception (%): 20 (post-mergence) |
|                  | Soil relevant application rate (g a.s./ha): 576 (pre-
|                  | mergence) |
|                  | Time of application: 7 days after the pre-defined crop |
|                  | emergence of the respective FOCUS locations |

| Product BAS 830 01 H with 333 g/L dimethenamid-P & 167 g/L quinmerac: |
|--------------------------|---------------------------------------------------------------------|
| Crop: winter oilseed rape| BBCH: 00-09 (pre-mergence) & 12-18 (pre-mergence) |
|                          | Application rate (g a.s./ha): 1 x 500                                |
|                          | Canopy interception (%): 0 (pre-mergence) & 40 (post-mergence)     |
Soil relevant application rate (g a.s./ha): 500 (pre-emergence) & 300 (post-emergence)
Time of application: 7 days before and after the pre-defined crop emergence of the respective FOCUS locations

PEC(gw) - FOCUS modelling results (80th percentile annual average concentration at 1m)

| Scenario         | Parent (µg/L) | Metabolite (µg/L) |
|------------------|--------------|-------------------|
|                  | M656PH023    | M656PH027         | M656PH031 |
| Chateaudun       | <0.001       | 0.407             | 2.876     | 8.594   |
| Hamburg          | 0.001        | 1.292             | 4.965     | 14.336  |
| Kremsmunster     | 0.001        | 1.007             | 3.877     | 10.453  |
| Okehampton       | 0.002        | 1.419             | 3.338     | 8.527   |
| Piacenza         | 0.001        | 0.671             | 2.394     | 6.448   |
| Porto            | <0.001       | 0.182             | 1.280     | 4.170   |
| Sevilla          | <0.001       | 0.002             | 0.725     | 2.419   |
| Thiva            | <0.001       | 0.142             | 1.871     | 5.956   |
Maize, pre-emergence, 864 g ha\(^{-1}\) (indicative PECgw values. Data gap)

| Scenario  | M3  | M10 | M32 | M43 (rota 1+2) | M45 (rota 1+2) | M47 (rota 1+2) | M49 | M50 | M51 |
|-----------|-----|-----|-----|----------------|----------------|----------------|-----|-----|-----|
| Châteaudun| 0.07| 0.05| 1.1 | 0.9            | 1.4            | 0.9            | 0.7 | 0.4 | 0.8 |
| Hamburg   | 0.1 | 0.09| 1.9 | 1.5            | 2.5            | 1.5            | 1.2 | 0.6 | 1.4 |
| Kremsmünster| 0.1| 0.07| 1.5 | 1.2            | 1.9            | 1.2            | 1.0 | 0.5 | 1.1 |
| Okehampton| 0.08| 0.06| 1.3 | 1.0            | 1.7            | 1.0            | 0.8 | 0.4 | 0.9 |
| Piacenza  | 0.06| 0.04| 0.9 | 0.7            | 1.2            | 0.7            | 0.6 | 0.3 | 0.7 |
| Porto     | 0.03| 0.02| 0.5 | 0.4            | 0.6            | 0.4            | 0.3 | 0.2 | 0.3 |
| Sevilla   | 0.02| 0.01| 0.3 | 0.2            | 0.4            | 0.2            | 0.2 | 0.1 | 0.2 |
| Thiva     | 0.05| 0.03| 0.7 | 0.6            | 0.9            | 0.6            | 0.5 | 0.2 | 0.5 |
|           | M52 |     |     | M53 iso 1      | M53 iso 2      | M54 (rota 1+2) | M55 | M59 iso 1 | M59 iso 2 | M59 iso 3 | M62 |
| Châteaudun| 0.6 | 1.2 | 1.4 | 2.4            | 0.5            | 0.6            | 0.3 | 1.2 | 1.4 |
| Hamburg   | 1.1 | 2.0 | 2.5 | 4.1            | 0.9            | 1.0            | 0.5 | 2.0 | 2.5 |
| Kremsmünster| 0.9| 1.6 | 1.9 | 3.2            | 0.7            | 0.8            | 0.4 | 1.6 | 1.9 |
| Okehampton| 0.8 | 1.3 | 1.7 | 2.8            | 0.6            | 0.7            | 0.3 | 1.3 | 1.7 |
| Piacenza  | 0.5 | 1.0 | 1.2 | 2.0            | 0.4            | 0.5            | 0.2 | 1.0 | 1.2 |
| Porto     | 0.3 | 0.5 | 0.6 | 1.0            | 0.2            | 0.2            | 0.1 | 0.5 | 0.6 |
| Sevilla   | 0.2 | 0.3 | 0.4 | 0.6            | 0.1            | 0.1            | 0.1 | 0.3 | 0.4 |
| Thiva     | 0.4 | 0.8 | 0.9 | 1.6            | 0.3            | 0.4            | 0.2 | 0.8 | 0.9 |

iso = isomer, rota = rotamer

Maize, post-emergence, 864 g a.s. ha\(^{-1}\)

| Scenario  | Parent (µg/L) | Metabolite (µg/L) | M656PH023 | M656PH027 | M656PH031 |
|-----------|--------------|------------------|-----------|-----------|-----------|
| Châteaudun| <0.001       | 0.255            | 2.220     | 6.758     |
| Hamburg   | 0.001        | 0.834            | 3.931     | 11.292    |
| Kremsmünster| <0.001| 0.660            | 2.902     | 8.017     |
| Okehampton| 0.002        | 0.984            | 2.614     | 6.778     |
| Piacenza  | 0.001        | 0.469            | 1.931     | 5.067     |
| Porto     | <0.001       | 0.125            | 0.944     | 3.143     |
| Sevilla   | <0.001       | 0.001            | 0.560     | 1.870     |
| Thiva     | <0.001       | 0.093            | 1.549     | 4.749     |
Maize, post-emergence, 864 g ha\(^{-1}\) (indicative PECgw values. Data gap)

| Scenario | M3 | M10 | M32 | M43 (rota 1+2) | M45 (rota 1+2) | M47 (rota 1+2) | M49 | M50 | M51 |
|----------|----|-----|-----|---------------|---------------|---------------|-----|-----|-----|
| Châteaudun | 0.06 | 0.04 | 0.8 | 0.7 | 1.1 | 0.7 | 0.6 | 0.3 | 0.6 |
| Hamburg | 0.1 | 0.07 | 1.5 | 1.2 | 2.0 | 1.2 | 1.0 | 0.5 | 1.1 |
| Kremsmünster | 0.07 | 0.05 | 1.1 | 0.9 | 1.5 | 0.9 | 0.7 | 0.4 | 0.8 |
| Okehampton | 0.07 | 0.05 | 1.0 | 0.8 | 1.3 | 0.8 | 0.7 | 0.3 | 0.7 |
| Piacenza | 0.05 | 0.03 | 0.7 | 0.6 | 1.0 | 0.6 | 0.5 | 0.2 | 0.5 |
| Porto | 0.02 | 0.02 | 0.4 | 0.3 | 0.5 | 0.3 | 0.2 | 0.1 | 0.3 |
| Sevilla | 0.01 | 0.01 | 0.2 | 0.2 | 0.3 | 0.2 | 0.1 | 0.1 | 0.2 |
| Thiva | 0.04 | 0.03 | 0.6 | 0.5 | 0.8 | 0.5 | 0.4 | 0.2 | 0.4 |

| Scenario | M52 | M53 | M53 iso 2 | M54 (rota 1+2) | M55 | M59 iso 1 | M59 iso 2 | M59 iso 3 | M62 |
|----------|-----|-----|-----------|---------------|-----|------------|------------|------------|-----|
| Châteaudun | 0.5 | 0.9 | 1.1 | 1.8 | 0.4 | 0.4 | 0.2 | 0.9 | 1.1 |
| Hamburg | 0.9 | 1.6 | 2.0 | 3.2 | 0.7 | 0.8 | 0.4 | 1.6 | 2.0 |
| Kremsmünster | 0.7 | 1.2 | 1.5 | 2.4 | 0.5 | 0.6 | 0.3 | 1.2 | 1.5 |
| Okehampton | 0.6 | 1.0 | 1.3 | 2.2 | 0.5 | 0.5 | 0.3 | 1.1 | 1.3 |
| Piacenza | 0.4 | 0.8 | 1.0 | 1.6 | 0.3 | 0.4 | 0.2 | 0.8 | 1.0 |
| Porto | 0.2 | 0.4 | 0.5 | 0.8 | 0.2 | 0.2 | 0.1 | 0.4 | 0.5 |
| Sevilla | 0.1 | 0.2 | 0.3 | 0.5 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 |
| Thiva | 0.3 | 0.6 | 0.8 | 1.3 | 0.3 | 0.3 | 0.2 | 0.6 | 0.8 |

iso= isomer, rota= rotamer

Soybeans, pre-emergence, 864 g a.s. ha\(^{-1}\)

| Scenario | Parent (µg/L) | Metabolite (µg/L) |
|----------|--------------|------------------|
| | M656PH023 | M656PH027 | M656PH031 |
| Piacenza | 0.001 | 0.404 | 1.692 | 4.980 |

Soybeans, pre-emergence, 864 g ha\(^{-1}\) (indicative PECgw values. Data gap)

| Scenario | M3 | M10 | M32 | M43 (rota 1+2) | M45 (rota 1+2) | M47 (rota 1+2) | M49 | M50 | M51 |
|----------|----|-----|-----|---------------|---------------|---------------|-----|-----|-----|
| Piacenza | 0.04 | 0.03 | 0.6 | 0.5 | 0.8 | 0.5 | 0.4 | 0.2 | 0.5 |

| Scenario | M52 | M53 | M53 iso 2 | M54 (rota 1+2) | M55 | M59 iso 1 | M59 iso 2 | M59 iso 3 | M62 |
|----------|-----|-----|-----------|---------------|-----|------------|------------|------------|-----|
| Piacenza | 0.4 | 0.7 | 0.8 | 1.4 | 0.3 | 0.3 | 0.2 | 0.7 | 0.8 |

iso= isomer, rota= rotamer
Sunflowers, pre-emergence, 864 g a.s. ha\(^{-1}\)

| Scenario | Parent (µg/L) | Metabolite (µg/L) |
|----------|--------------|-------------------|
|          |              | M656PH023 | M656PH027 | M656PH031 |
| Piacenza | 0.002        | 0.951     | 3.025     | 7.751     |
| Sevilla  | <0.001       | 0.010     | 1.134     | 3.728     |

Sunflowers, pre-emergence, 864 g ha\(^{-1}\) (indicative PECgw values. **Data gap**)

| Scenario | M3     | M10    | M32    | M43  | M45  | M47  | M49  | M50  | M51  |
|----------|--------|--------|--------|------|------|------|------|------|------|
| Piacenza | 0.08   | 0.05   | 1.1    | 0.9  | 1.5  | 0.9  | 0.8  | 0.4  | 0.8  |
| Sevilla  | 0.03   | 0.02   | 0.4    | 0.3  | 0.6  | 0.3  | 0.3  | 0.1  | 0.3  |

| Scenario | M52   | M53   | M54   | M55  | M59  | M59  | M59  | M62  |
|----------|-------|-------|-------|------|------|------|------|------|
| Piacenza | 0.7   | 1.2   | 1.5   | 2.5  | 0.5  | 0.6  | 0.3  | 1.2  | 1.5  |
| Sevilla  | 0.3   | 0.5   | 0.6   | 0.9  | 0.2  | 0.2  | 0.1  | 0.5  | 0.6  |

**iso** = isomer, rotamer = rotamer

Sugar beet, pre-emergence, 864 g a.s. ha\(^{-1}\)

| Scenario      | Parent (µg/L) | Metabolite (µg/L) |
|---------------|--------------|-------------------|
|               |              | M656PH023 | M656PH027 | M656PH031 |
| Chateaudun    | <0.001       | 1.002     | 4.440     | 12.217    |
| Hamburg       | 0.001        | 1.150     | 4.539     | 13.300    |
| Jokioinen     | <0.001       | 0.733     | 7.231     | 24.996    |
| Kremsmunster  | <0.001       | 0.893     | 3.699     | 9.924     |
| Okehampton    | 0.001        | 1.202     | 3.121     | 7.862     |
| Piacenza      | 0.001        | 0.752     | 3.161     | 9.031     |
| Porto         | 0.001        | 0.612     | 2.841     | 7.650     |
| Sevilla       | <0.001       | 0.569     | 4.881     | 10.244    |
| Thiva         | <0.001       | 0.171     | 2.255     | 7.104     |
Sugar beet, pre-emergence, 864 g ha\(^{-1}\) (indicative PECgw values. Data gap)

| Scenario          | M3 | M10 | M32 | M43 (rota 1+2) | M45 (rota 1+2) | M47 (rota 1+2) | M49 | M50 | M51 |
|-------------------|----|-----|-----|----------------|----------------|----------------|-----|-----|-----|
| Châteaudun        | 0.1| 0.08| 1.7 | 1.3            | 2.2            | 1.3            | 1.1 | 0.6 | 1.2 |
| Hamburg           | 0.1| 0.08| 1.7 | 1.4            | 2.3            | 1.4            | 1.1 | 0.6 | 1.2 |
| Jokioinen         | 0.2| 0.1 | 2.8 | 2.2            | 3.6            | 2.2            | 1.8 | 0.9 | 2.0 |
| Kremsmünster      | 0.09| 0.06| 1.4 | 1.1            | 1.8            | 1.1            | 0.9 | 0.5 | 1.0 |
| Okehampton        | 0.08| 0.05| 1.2 | 0.9            | 1.6            | 0.9            | 0.8 | 0.4 | 0.9 |
| Piacenza          | 0.08| 0.06| 1.2 | 0.9            | 1.6            | 0.9            | 0.8 | 0.4 | 0.9 |
| Porto             | 0.07| 0.05| 1.1 | 0.9            | 1.4            | 0.9            | 0.7 | 0.4 | 0.8 |
| Sevilla           | 0.1 | 0.09| 1.8 | 1.5            | 2.4            | 1.5            | 1.2 | 0.6 | 1.3 |
| Thiva             | 0.06| 0.04| 0.8 | 0.7            | 1.1            | 0.7            | 0.6 | 0.3 | 0.6 |

| Scenario          | M52 | M53 is 1 | M53 is 2 | M54 (rota 1+2) | M55 | M59 is 1 | M59 is 2 | M59 is 3 | M62 |
|-------------------|-----|-----------|-----------|----------------|-----|-----------|-----------|-----------|-----|
| Châteaudun        | 1.0 | 1.8       | 2.2       | 3.7            | 0.8 | 0.9       | 0.4       | 1.8       | 2.2 |
| Hamburg           | 1.0 | 1.8       | 2.3       | 3.7            | 0.8 | 0.9       | 0.5       | 1.8       | 2.3 |
| Jokioinen         | 1.6 | 2.9       | 3.6       | 6.0            | 1.3 | 1.4       | 0.7       | 2.9       | 3.6 |
| Kremsmünster      | 0.8 | 1.5       | 1.8       | 3.1            | 0.6 | 0.7       | 0.4       | 1.5       | 1.8 |
| Okehampton        | 0.7 | 1.2       | 1.6       | 2.6            | 0.5 | 0.6       | 0.3       | 1.2       | 1.6 |
| Piacenza          | 0.7 | 1.3       | 1.6       | 2.6            | 0.6 | 0.6       | 0.3       | 1.3       | 1.6 |
| Porto             | 0.6 | 1.1       | 1.4       | 2.3            | 0.5 | 0.6       | 0.3       | 1.1       | 1.4 |
| Sevilla           | 1.1 | 2.0       | 2.4       | 4.0            | 0.9 | 1.0       | 0.5       | 2.0       | 2.4 |
| Thiva             | 0.5 | 0.9       | 1.1       | 1.9            | 0.4 | 0.5       | 0.2       | 0.9       | 1.1 |

iso= isomer, rota= rotamer

Sugar beet, pre-emergence, 864 g a.s. ha\(^{-1}\) (Tier 2b, application only every second year)

| Scenario          | Parent (µg/L) | Metabolite (µg/L) | M656PH023 | M656PH027 | M656PH031 |
|-------------------|---------------|-------------------|-----------|-----------|-----------|
| Châteaudun        | <0.001        | 0.504             | 2.238     | 5.915     |
| Hamburg           | <0.001        | 0.347             | 2.041     | 5.894     |
| Jokioinen         | <0.001        | 0.195             | 3.516     | 10.523    |
| Kremsmünster      | <0.001        | 0.358             | 1.890     | 5.190     |
| Okehampton        | 0.001         | 0.620             | 1.632     | 3.997     |
| Piacenza          | 0.001         | 0.391             | 1.516     | 3.725     |
| Porto             | <0.001        | 0.312             | 1.227     | 2.882     |
| Sevilla           | <0.001        | 0.133             | 2.226     | 4.880     |
| Thiva             | <0.001        | 0.046             | 1.199     | 3.763     |
Sugar beet, pre-emergence, 864 g ha\(^{-1}\) (Tier 2b, application only every second year) (indicative PECgw values. Data gap)

| Scenario          | M3  | M10 | M32 | M43 (rota 1+2) | M45 (rota 1+2) | M47 (rota 1+2) | M49 | M50 | M51 |
|-------------------|-----|-----|-----|----------------|----------------|----------------|-----|-----|-----|
| Châteaudun       | 0.06| 0.04| 0.8 | 0.7            | 1.1            | 0.7            | 0.6 | 0.3 | 0.6 |
| Hamburg          | 0.05| 0.04| 0.8 | 0.6            | 1.0            | 0.6            | 0.5 | 0.3 | 0.6 |
| Jokioinen        | 0.09| 0.06| 1.3 | 1.1            | 1.8            | 1.1            | 0.9 | 0.4 | 1.0 |
| Kremsmünster     | 0.05| 0.03| 0.7 | 0.6            | 0.9            | 0.6            | 0.5 | 0.2 | 0.5 |
| Okehampton       | 0.04| 0.03| 0.6 | 0.5            | 0.8            | 0.5            | 0.4 | 0.2 | 0.4 |
| Piacenza         | 0.04| 0.03| 0.6 | 0.5            | 0.8            | 0.5            | 0.4 | 0.2 | 0.4 |
| Porto            | 0.03| 0.02| 0.5 | 0.4            | 0.6            | 0.4            | 0.3 | 0.2 | 0.3 |
| Sevilla          | 0.06| 0.04| 0.8 | 0.7            | 1.1            | 0.7            | 0.6 | 0.3 | 0.6 |
| Thiva            | 0.03| 0.02| 0.5 | 0.4            | 0.6            | 0.4            | 0.3 | 0.2 | 0.3 |

| Scenario          | M52 | M53 iso 1 | M53 iso 2 | M54 (rota 1+2) | M55 | M59 iso 1 | M59 iso 2 | M59 iso 3 | M62 |
|-------------------|-----|-----------|-----------|----------------|-----|-----------|-----------|-----------|-----|
| Chateaudun       | 0.5 | 0.9       | 1.1       | 1.9            | 0.4 | 0.4       | 0.2       | 0.9       | 1.1 |
| Hamburg          | 0.5 | 0.8       | 1.0       | 1.7            | 0.4 | 0.4       | 0.2       | 0.8       | 1.0 |
| Jokioinen        | 0.8 | 1.4       | 1.8       | 2.9            | 0.7 | 0.7       | 0.4       | 1.4       | 1.8 |
| Kremsmünster     | 0.4 | 0.8       | 0.9       | 1.6            | 0.3 | 0.4       | 0.2       | 0.8       | 0.9 |
| Okehampton       | 0.4 | 0.7       | 0.8       | 1.3            | 0.3 | 0.3       | 0.2       | 0.7       | 0.8 |
| Piacenza         | 0.3 | 0.6       | 0.8       | 1.3            | 0.3 | 0.3       | 0.2       | 0.6       | 0.8 |
| Porto            | 0.3 | 0.5       | 0.6       | 1.0            | 0.2 | 0.2       | 0.1       | 0.5       | 0.6 |
| Sevilla          | 0.5 | 0.9       | 1.1       | 1.8            | 0.4 | 0.5       | 0.2       | 0.9       | 1.1 |
| Thiva            | 0.3 | 0.5       | 0.6       | 1.0            | 0.2 | 0.2       | 0.1       | 0.5       | 0.6 |

iso= isomer, rota= rotamer

Sugar beet, pre-emergence, 864 g a.s. ha\(^{-1}\) (application only every third year)

| Scenario          | Parent (µg/L) | Metabolite (µg/L) | M656PH023 | M656PH027 | M656PH031 |
|-------------------|---------------|-------------------|-----------|-----------|-----------|
| Chateaudun        | <0.001        | 0.303             | 1.444     | 4.053     |
| Hamburg           | <0.001        | 0.274             | 1.441     | 4.068     |
| Jokioinen         | <0.001        | 0.131             | 2.280     | 8.442     |
| Kremsmünster      | <0.001        | 0.245             | 1.340     | 3.359     |
| Okehampton        | <0.001        | 0.470             | 1.161     | 2.651     |
| Piacenza          | <0.001        | 0.289             | 0.914     | 2.459     |
| Porto             | <0.001        | 0.250             | 0.774     | 2.034     |
| Sevilla           | <0.001        | 0.092             | 1.561     | 3.703     |
| Thiva             | <0.001        | 0.034             | 0.938     | 2.893     |
Sugar beet, pre-emergence, 864 g ha\(^{-1}\) (Tier 2b, application only every third year) (indicative PECgw values.

**Data gap**

| Scenario | M3  | M10 | M32 | M43 (rota 1+2) | M45 (rota 1+2) | M47 (rota 1+2) | M49 | M50 | M51 |
|----------|-----|-----|-----|----------------|----------------|----------------|-----|-----|-----|
| Châteaudun | 0.04 | 0.03 | 0.5 | 0.4            | 0.7            | 0.4            | 0.4 | 0.2 | 0.4 |
| Hamburg   | 0.04 | 0.03 | 0.5 | 0.4            | 0.7            | 0.4            | 0.4 | 0.2 | 0.4 |
| Jokoinen  | 0.06 | 0.04 | 0.9 | 0.7            | 1.1            | 0.7            | 0.6 | 0.3 | 0.6 |
| Kremsmünster | 0.03 | 0.02 | 0.5 | 0.4            | 0.7            | 0.4            | 0.3 | 0.2 | 0.4 |
| Okehampton | 0.03 | 0.02 | 0.4 | 0.3            | 0.6            | 0.4            | 0.3 | 0.1 | 0.3 |
| Piacenza  | 0.02 | 0.02 | 0.3 | 0.3            | 0.5            | 0.3            | 0.2 | 0.1 | 0.3 |
| Porto     | 0.02 | 0.01 | 0.3 | 0.2            | 0.4            | 0.2            | 0.2 | 0.1 | 0.2 |
| Sevilla   | 0.04 | 0.03 | 0.6 | 0.5            | 0.8            | 0.5            | 0.4 | 0.2 | 0.4 |
| Thiva     | 0.02 | 0.02 | 0.4 | 0.3            | 0.5            | 0.3            | 0.2 | 0.1 | 0.3 |

| Scenario | M52 | M53 iso 1 | M53 iso 2 | M54 (rota 1+2) | M55 | M59 iso 1 | M59 iso 2 | M59 iso 3 | M62 |
|----------|-----|-----------|-----------|----------------|-----|-----------|-----------|-----------|-----|
| Châteaudun | 0.3 | 0.6       | 0.7       | 1.2            | 0.3 | 0.3       | 0.1       | 0.6       | 0.7 |
| Hamburg   | 0.3 | 0.6       | 0.7       | 1.2            | 0.3 | 0.3       | 0.1       | 0.6       | 0.7 |
| Jokoinen  | 0.5 | 0.9       | 1.1       | 1.9            | 0.4 | 0.5       | 0.2       | 0.9       | 1.1 |
| Kremsmünster | 0.3 | 0.5       | 0.7       | 1.1            | 0.2 | 0.3       | 0.1       | 0.5       | 0.7 |
| Okehampton | 0.3 | 0.5       | 0.6       | 1.0            | 0.2 | 0.2       | 0.1       | 0.5       | 0.6 |
| Piacenza  | 0.2 | 0.4       | 0.5       | 0.8            | 0.2 | 0.2       | 0.09      | 0.4       | 0.5 |
| Porto     | 0.2 | 0.3       | 0.4       | 0.6            | 0.1 | 0.2       | 0.08      | 0.3       | 0.4 |
| Sevilla   | 0.4 | 0.6       | 0.8       | 1.3            | 0.3 | 0.3       | 0.2       | 0.6       | 0.8 |
| Thiva     | 0.2 | 0.4       | 0.5       | 0.8            | 0.2 | 0.2       | 0.09      | 0.4       | 0.5 |

Sugar beet, post-emergence, 720 g a.s. ha\(^{-1}\)

| Scenario | Parent (µg/L) | Metabolite (µg/L) M656PH023 | M656PH027 | M656PH031 |
|----------|--------------|-----------------------------|-----------|-----------|
| Châteaudun | <0.001       | 0.537                       | 3.077     | 8.454     |
| Hamburg   | 0.001        | 0.607                       | 3.158     | 9.075     |
| Jokoinen  | <0.001       | 0.304                       | 5.022     | 17.208    |
| Kremsmünster | <0.001   | 0.446                       | 2.499     | 6.772     |
| Okehampton | 0.001        | 0.678                       | 2.077     | 5.412     |
| Piacenza  | 0.001        | 0.414                       | 2.085     | 5.987     |
| Porto     | 0.001        | 0.330                       | 1.833     | 5.008     |
| Sevilla   | 0.001        | 0.158                       | 2.775     | 6.289     |
| Thiva     | <0.001       | 0.078                       | 1.601     | 4.961     |
Sugar beet, post-emergence, 720 g a.s. ha\(^{-1}\) (indicative PECgw values. Data gap)

| Scenario      | M3  | M10 | M32 | M43 (rota 1+2) | M45 (rota 1+2) | M47 (rota 1+2) | M49 | M50 | M51 |
|---------------|-----|-----|-----|----------------|----------------|----------------|-----|-----|-----|
| Châteaudun   | 0.08| 0.05| 1.2 | 0.9            | 1.5            | 0.9            | 0.8 | 0.4 | 0.8 |
| Hamburg      | 0.08| 0.06| 1.2 | 0.9            | 1.6            | 0.9            | 0.8 | 0.4 | 0.9 |
| Jokoinen     | 0.1 | 0.09| 1.9 | 1.5            | 2.6            | 1.5            | 1.3 | 0.6 | 1.4 |
| Kremsmünster | 0.06| 0.04| 0.9 | 0.7            | 1.2            | 0.7            | 0.6 | 0.3 | 0.7 |
| Okehampton   | 0.05| 0.04| 0.8 | 0.6            | 1.0            | 0.6            | 0.5 | 0.3 | 0.6 |
| Piacenza     | 0.05| 0.04| 0.8 | 0.6            | 1.0            | 0.6            | 0.5 | 0.3 | 0.6 |
| Porto        | 0.05| 0.03| 0.7 | 0.5            | 0.9            | 0.5            | 0.5 | 0.2 | 0.5 |
| Sevilla      | 0.07| 0.05| 1.0 | 0.8            | 1.4            | 0.8            | 0.7 | 0.3 | 0.8 |
| Thiva        | 0.04| 0.03| 0.6 | 0.5            | 0.8            | 0.5            | 0.4 | 0.2 | 0.4 |

| Scenario       | M52 | M53 iso 1 | M53 iso 2 | M54 (rota 1+2) | M55 | M59 iso 1 | M59 iso 2 | M59 iso 3 | M62 |
|----------------|-----|-----------|-----------|----------------|-----|-----------|-----------|-----------|-----|
| Châteaudun     | 0.7 | 1.2       | 1.5       | 2.6            | 0.5 | 0.6       | 0.3       | 1.2       | 1.5 |
| Hamburg        | 0.7 | 1.3       | 1.6       | 2.6            | 0.6 | 0.6       | 0.3       | 1.3       | 1.6 |
| Jokoinen       | 1.1 | 2.0       | 2.5       | 4.2            | 0.9 | 1.0       | 0.5       | 2.0       | 2.5 |
| Kremsmünster   | 0.6 | 1.0       | 1.2       | 2.1            | 0.4 | 0.5       | 0.2       | 1.0       | 1.2 |
| Okehampton     | 0.5 | 0.8       | 1.0       | 1.7            | 0.4 | 0.4       | 0.2       | 0.8       | 1.0 |
| Piacenza       | 0.5 | 0.8       | 1.0       | 1.7            | 0.4 | 0.4       | 0.2       | 0.8       | 1.0 |
| Porto          | 0.4 | 0.7       | 0.9       | 1.5            | 0.3 | 0.4       | 0.2       | 0.7       | 0.9 |
| Sevilla        | 0.6 | 1.1       | 1.4       | 2.3            | 0.5 | 0.6       | 0.3       | 1.1       | 1.4 |
| Thiva          | 0.4 | 0.6       | 0.8       | 1.3            | 0.3 | 0.3       | 0.2       | 0.6       | 0.8 |

iso= isomer, rota= rotamer

Winter oilseed rape, pre-emergence, 500 g a.s. ha\(^{-1}\)

| Scenario      | Parent (µg/L) | Metabolite (µg/L) |
|---------------|---------------|-------------------|
|               |               | M656PH023 | M656PH027 | M656PH031 |
| Chateaudun    | <0.001        | 0.249     | 3.248     | 9.327     |
| Hamburg       | 0.003         | 1.608     | 6.270     | 12.285    |
| Kremsmunster  | 0.002         | 0.788     | 3.221     | 7.561     |
| Okehampton    | 0.003         | 1.287     | 3.250     | 7.133     |
| Piacenza      | 0.008         | 1.285     | 4.137     | 8.250     |
| Porto         | 0.005         | 1.285     | 3.170     | 7.428     |
### Winter oilseed rape, pre-emergence, 500 g ha\(^{-1}\) (indicative PECgw values. **Data gap**)

| Scenario     | PECgw [µg L\(^{-1}\)] | M3 | M10 | M32 | M43 (rota 1+2) | M45 (rota 1+2) | M47 (rota 1+2) | M49 | M50 | M51 |
|--------------|------------------------|----|-----|-----|----------------|----------------|----------------|-----|-----|-----|
| Châteaudun   | 0.08                   | 0.06 | 1.2 | 1.0 | 1.6            | 1.0            | 0.8            | 0.4 | 0.9 |
| Hamburg      | 0.2                    | 0.1  | 2.4 | 1.9 | 3.1            | 1.9            | 1.6            | 0.8 | 1.7 |
| Kremsmünster | 0.08                   | 0.06 | 1.2 | 1.0 | 1.6            | 1.0            | 0.8            | 0.4 | 0.9 |
| Okehampton   | 0.08                   | 0.06 | 1.2 | 1.0 | 1.6            | 1.0            | 0.8            | 0.4 | 0.9 |
| Piacenza     | 0.1                    | 0.07 | 1.6 | 1.2 | 2.1            | 1.2            | 1.0            | 0.5 | 1.1 |
| Porto        | 0.08                   | 0.06 | 1.2 | 1.0 | 1.6            | 1.0            | 0.8            | 0.4 | 0.9 |
| Châteaudun   |                       |     |     |     |                |                |                |     |     |
|               | Scenario               | M52 | M53 iso 1 | M53 iso 2 | M54 (rota 1+2) | M55 | M59 iso 1 | M59 iso 2 | M59 iso 3 | M62 |
| Chateaudun   | 0.7                    | 1.3  | 1.6 | 2.7 | 0.6            | 0.7            | 0.3            | 1.3 | 1.6 |
| Hamburg      | 1.4                    | 2.5  | 3.1 | 5.2 | 1.1            | 1.3            | 0.6            | 2.5 | 3.1 |
| Kremsmünster | 0.7                    | 1.3  | 1.6 | 2.7 | 0.6            | 0.6            | 0.3            | 1.3 | 1.6 |
| Okehampton   | 0.7                    | 1.3  | 1.6 | 2.7 | 0.6            | 0.7            | 0.3            | 1.3 | 1.6 |
| Piacenza     | 0.9                    | 1.7  | 2.1 | 3.4 | 0.7            | 0.8            | 0.4            | 1.7 | 2.1 |
| Porto        | 0.7                    | 1.3  | 1.6 | 2.6 | 0.6            | 0.6            | 0.3            | 1.3 | 1.6 |

iso= isomer, rota= rotamer

### Winter oilseed rape, pre-emergence, 500 g a.s. ha\(^{-1}\) (application only every second year)

| Scenario     | Parent (µg/L) | Metabolite (µg/L) | M656PH023 | M656PH027 | M656PH031 |
|--------------|---------------|-------------------|-----------|-----------|-----------|
| Chateaudun   | <0.001        | 0.098             | 1.836     | 5.078     |
| Hamburg      | 0.001         | 0.683             | 2.987     | 6.283     |
| Kremsmünster | 0.001         | 0.364             | 1.924     | 4.058     |
| Okehampton   | 0.002         | 0.595             | 1.669     | 3.370     |
| Piacenza     | 0.003         | 0.526             | 2.114     | 3.815     |
| Porto        | 0.002         | 0.555             | 1.530     | 3.128     |
Winter oilseed rape, pre-emergence, 500 g ha\(^{-1}\) (Tier 2b, application only every second year) (indicative PECgw values. Data gap)

| Scenario     | PECgw [µg L\(^{-1}\)] | M3 | M10 | M32 | M43 (rota 1+2) | M45 (rota 1+2) | M47 (rota 1+2) | M49 | M50 | M51 |
|--------------|------------------------|----|-----|-----|----------------|----------------|----------------|-----|-----|-----|
| Châteaudun   |                        | 0.05 | 0.03 | 0.7 | 0.6            | 0.9            | 0.6            | 0.5 | 0.2 | 0.5 |
| Hamburg      |                        | 0.07 | 0.05 | 1.1 | 0.9            | 1.5            | 0.9            | 0.7 | 0.4 | 0.8 |
| Kremsmünster |                        | 0.05 | 0.03 | 0.7 | 0.6            | 1.0            | 0.6            | 0.5 | 0.2 | 0.5 |
| Okehampton   |                        | 0.04 | 0.03 | 0.6 | 0.5            | 0.8            | 0.5            | 0.4 | 0.2 | 0.5 |
| Piacenza     |                        | 0.05 | 0.04 | 0.8 | 0.6            | 1.1            | 0.6            | 0.5 | 0.3 | 0.6 |
| Porto        |                        | 0.04 | 0.03 | 0.6 | 0.5            | 0.8            | 0.5            | 0.4 | 0.2 | 0.4 |

iso= isomer, rota= rotamer

Winter oilseed rape, post-emergence, 500 g a.s. ha\(^{-1}\)

| Scenario   | Parent (µg/L) | Metabolite (µg/L) | M656PH023 | M656PH027 | M656PH031 |
|------------|--------------|-------------------|-----------|-----------|-----------|
| Chateaudun | <0.001       | 0.087             | 1.950     | 5.488     |
| Hamburg    | 0.002        | 0.738             | 3.888     | 7.548     |
| Kremsmünster | 0.001 | 0.344             | 2.126     | 4.741     |
| Okehampton | 0.003        | 0.664             | 2.257     | 4.593     |
| Piacenza   | 0.003        | 0.384             | 2.313     | 4.342     |
| Porto      | 0.005        | 0.684             | 2.286     | 4.632     |
## Peer review of the pesticide risk assessment of the active substance dimethenamid-P

### Winter oilseed rape, post-emergence, 500 g ha\(^{-1}\) (indicative PECgw values. Data gap)

| Scenario       | PECgw [µg L\(^{-1}\)] | M3 | M10 | M32 | M43 (rota 1+2) | M45 (rota 1+2) | M47 (rota 1+2) | M49 | M50 | M51 |
|----------------|------------------------|----|-----|-----|----------------|----------------|----------------|-----|-----|-----|
| Châteaudun     | 0.05 0.03 0.7          | 0.6| 0.6 | 1.0 | 0.6            | 0.5            | 0.2            | 0.5 |
| Hamburg        | 0.10 0.07 1.5          | 1.2| 1.9 | 1.2 | 1.0            | 0.5            | 1.1            |     |
| Kremsmünster   | 0.05 0.04 0.8          | 0.6| 1.1 | 0.6 | 0.5            | 0.3            | 0.6            |     |
| Okehampton     | 0.06 0.04 0.9          | 0.7| 1.1 | 0.7 | 0.6            | 0.3            | 0.6            |     |
| Piacenza       | 0.06 0.04 0.9          | 0.7| 1.2 | 0.7 | 0.6            | 0.3            | 0.6            |     |
| Porto          | 0.06 0.04 0.9          | 0.7| 1.2 | 0.7 | 0.6            | 0.3            | 0.6            |     |

| Scenario       | M52 M53 iso 1 M53 iso 2 M54 (rota 1+2) M55 M59 iso 1 M59 iso 2 M59 iso 3 M62 |
|----------------|-----------------------------------------------------------------------------|
| Châteaudun     | 0.4 0.8 1.0 1.6 0.3 0.4 0.2 0.8 1.0                                         |
| Hamburg        | 0.9 1.6 1.9 3.2 0.7 0.8 0.4 1.6 1.9                                         |
| Kremsmünster   | 0.5 0.9 1.1 1.8 0.4 0.4 0.2 0.9 1.1                                         |
| Okehampton     | 0.5 0.9 1.1 1.9 0.4 0.5 0.2 0.9 1.2                                         |
| Piacenza       | 0.5 0.9 1.1 1.9 0.4 0.5 0.2 0.9 1.2                                         |
| Porto          | 0.5 0.9 1.1 1.9 0.4 0.5 0.2 0.9 1.2                                         |

iso= isomer, rota= rotamer

### PEC surface water and PEC sediment (Regulation (EU) No 284/2013, Annex Part A, points 9.2.5/9.3.1)

#### Parent dimethenamid-P

**Parameters used in FOCUSsw step 1 and 2**

| Parameter Description                                                                 | Value                                                                 |
|--------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Molecular weight (g/mol)                                                             | 275.8                                                                |
| Water solubility at 25 °C (mg/L)                                                     | 1449                                                                |
| \(K_{oc}\) (mL/g)                                                                   | 167.4 (median, n=10)                                                 |
| \(DT_{50}\) soil (d): geometric mean of normalised laboratory and field values (n = 12) |                                                                       |
| \(DT_{50}\) water/sediment system (d): geometric mean of total system, laboratory data, n=3 |                                                                       |
| \(DT_{50}\) sediment (d)                                                            | 1000 d (default)                                                     |

#### Application rates used in FOCUSsw step 1 and 2

| Product                                                                                   | Value                                                                 |
|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Product BAS 656 12 H with 720 g/L dimethenamid-P                                           |                                                                      |
| Crop: Maize                                                                               |                                                                      |
| Application rate (g a.s./ha)                                                              | 1 x 864                                                              |
| Crop interception (%)                                                                     | no interception & minimal crop cover                                  |
| season of application                                                                      | March - May                                                           |

#### Version control no. of FOCUS calculator:

| Step 1-2, version 2.1                                                                      |                                                                      |
|--------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Molecular weight (g/mol)                                                                   | 275.8                                                                |
| Water solubility at 25 °C (mg/L)                                                           | 1449                                                                |
| \(K_{oc}\) (mL/g)                                                                        | 167.4 (median, n=10)                                                 |
| \(DT_{50}\) soil (d): geometric mean of normalised laboratory and field values (n = 12)   |                                                                       |
| \(DT_{50}\) water/sediment system (d): geometric mean of total system, laboratory data, n=3 |                                                                       |
| \(DT_{50}\) sediment (d)                                                                 | 1000 d (default)                                                     |

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### Application rates used in FOCUSsw step 3 & 4

| Crop | Application rate (g/ha) | Season of application |
|------|-------------------------|-----------------------|
| Crop: soy beans, sunflowers and sugar beets | 1 x 864 | March - May |
| Crop: sugar beets | 1 x 720 | March - May & Jun-Sep |
| Crop: winter oilseed rape | 500 g/ha dimethenamid-P (+ 250 g/ha quinmerac) | Jun - Sep & Oct-Feb |
| Crop: maize | 1 x 864 | 30 d before emergence (pre-merge) |

### Parameters used in FOCUSsw step 3 & 4

| Parameter | Value |
|-----------|-------|
| Molecular weight (g/mol) | 275.8 |
| Water solubility at 25 °C (mg/L) | 1449 |
| Vapour pressure (Pa) at 25 °C | 2.51 x 10^{-3} |
| K_{oc} (mL/g) | 167.4, Median (n = 10) |
| 1/n | 0.99 (median/ arithmetic mean, n=10) |
| DT_{50} soil (d) | 11.3 d (geometric mean of normalised laboratory and field DT_{50} values (n = 12)) |
| DT_{50} water (d) | 26.9 (geometric mean of total system, laboratory data, n=3) |
| DT_{50} sediment (d) | 1000 (default) |
| DT_{50} crop (d) | 10 |
| Crop uptake factor | 0.5 |
| Wash off coefficient: PRZM (cm^-1) | 0.5 |
| MACRO (mm^-1) | 0.05 |
| Modelling 2: data gap | DT_{50} water (d): 1000 d (default) with DT_{50} sediment (d): 26.9 d (geometric mean of total system, laboratory data, n=3) |

### Application rates used in FOCUSsw step 3 & 4

| Crop | Application rate (g a.s./ha) | Application window |
|------|----------------------------|--------------------|
| Crop: wheat | 500 g/ha | 30 d before emergence (pre-merge) |
| Crop: soy beans | 1 x 864 | 30 d before emergence (pre-merge) |
| Crop: sugar beets | 1 x 720 | 30 d before emergence (pre-merge) |
| Crop: winter oilseed rape | 500 g/ha dimethenamid-P (+ 250 g/ha quinmerac) | 30 d before emergence (pre-merge) |
| Crop: maize | 1 x 864 | 30 d before emergence (pre-merge) |
Crop: Soy beans  
BBCH: 00-09 (pre-emergence)  
Application rate (g a.s./ha): 1 x 864  
Application window: 30 d before emergence (pre-emergence)

Crop: sunflowers  
BBCH: 00-09 (pre-emergence)  
Application rate (g a.s./ha): 1 x 864  
Application window: 30 d before emergence (pre-emergence)

Crop: sugar beets  
BBCH: 00-09 (pre-emergence)  
Application rate (g a.s./ha): 1 x 864  
Application window: 30 d before emergence (pre-emergence)

Crop: sugar beets  
BBCH: 12-18 (post-emergence)  
Application rate (g a.s./ha): 1 x 720  
Application window: 30 d after emergence (post-emergence)

Product BAS 830 01 H with 333 g/L dimethenamid-P & 167 g/L quinmerac:

Crop: winter oilseed rape  
BBCH: 00-09 (pre-emergence) & 10-16 (post-emergence)  
Application rate (g a.s./ha): 1 x 500 g/ha dimethenamid-P (+ 250 g/ha quinmerac)  
Application window: 30 d before emergence (pre-emergence) & 30 d after emergence (post-emergence)

| Application scenario | FOCUS model | $\text{PEC}_{\text{SW, max}}$ (µg/L) | $\text{PEC}_{\text{SED, max}}$ (µg/kg) |
|----------------------|-------------|-------------------------------|-------------------------------|
| Maize, soybeans, sunflowers, sugar beets 1 x 864 g/ha, pre-emergence | FOCUS Step 1 | 243.394 | 394.711 |
| North Europe | | 43.142 | 71.564 |
| South Europe | | 79.986 | 133.198 |
| Maize, 1 x 864 g/ha, post-emergence | FOCUS Step 1 | 243.394 | 394.711 |
| North Europe | | 33.931 | 56.156 |
| South Europe | | 61.564 | 102.381 |
### Application scenario

| FOCUS model | PEC<sub>SW</sub>, max (µg/L) | PEC<sub>SED</sub>, max (µg/kg) |
|-------------|-----------------------------|-------------------------------|

#### Sugar beets, 1 x 720 g/ha, post-emergence
- FOCUS Step 1: 243.394
- FOCUS Step 2: 328.926
- North Europe, Mar-May: 29.811
- South Europe, Mar-May: 54.374

#### Winter oilseed rape 1 x 500 g/ha, pre-emergence
- FOCUS Step 1: 140.853
- FOCUS Step 2: 228.421
- North Europe, Oct-Feb: 56.949
- South Europe, Oct-Feb: 46.288

#### Winter oilseed rape 1 x 500 g/ha, post-emergence
- FOCUS Step 1: 140.853
- FOCUS Step 2: 228.421
- North Europe, June-Sept: 16.438
- North Europe, Oct-Feb: 35.628
- South Europe, June-Sept: 22.835
- South Europe, Oct-Feb: 29.231

### Application scenario

| FOCUS STEP 3 Scenario | Water body | PEC<sub>SW</sub>, Global max (µg/L) | PEC<sub>SED</sub>, Global max (µg/kg) |
|------------------------|------------|-----------------------------------|-----------------------------------|

#### Maize, 1 x 864 g/ha, pre-emergence
- D3: ditch 4.524 0.990
  - D4: pond 0.212 0.293
  - stream 3.721 0.135
- D5: pond 0.215 0.285
  - stream 4.025 0.153
- D6: ditch 4.578 1.204
- R1: pond 0.330 0.514
  - stream 10.478 1.853
- R2: stream 7.504 1.490
- R3: stream 16.982 4.430
- R4: stream 46.070 5.991

#### Maize, 1 x 864 g/ha, post-emergence
- D3: ditch 4.528 1.037
### Application scenario: Soy beans, 1 x 864 g/ha, pre-emergence

| Water body | FOCUS STEP 3 Scenario | PEC$_{SW}$, Global max (µg/L) | PEC$_{SED}$, Global max (µg/kg) |
|------------|------------------------|------------------------------|--------------------------------|
| stream     | D3                     | 23.084                       | 13.736                         |
|            | R4                     | 13.805                       | 3.169                          |

### Application scenario: sunflowers, 1 x 864 g/ha, pre-emergence

| Water body | FOCUS STEP 3 Scenario | PEC$_{SW}$, Global max (µg/L) | PEC$_{SED}$, Global max (µg/kg) |
|------------|------------------------|------------------------------|--------------------------------|
| stream     | D5                     | 20.477                       | 3.859                          |
|            | R3                     | 38.356                       | 7.615                          |

### Application scenario: Sugar beets, 1 x 864 g/ha, pre-emergence

| Water body | FOCUS STEP 3 Scenario | PEC$_{SW}$, Global max (µg/L) | PEC$_{SED}$, Global max (µg/kg) |
|------------|------------------------|------------------------------|--------------------------------|
| stream     | D3                     | 3.772                        | 0.870                          |
|            | D4                     | 3.727                        | 0.154                          |
|            | R1                     | 20.477                       | 3.859                          |
|            | R3                     | 38.356                       | 7.615                          |

### Application scenario: Sugar beets, 1 x 720 g/ha, post-emergence

| Water body | FOCUS STEP 3 Scenario | PEC$_{SW}$, Global max (µg/L) | PEC$_{SED}$, Global max (µg/kg) |
|------------|------------------------|------------------------------|--------------------------------|
| stream     | D3                     | 3.772                        | 0.870                          |
|            | D4                     | 3.160                        | 0.145                          |
|            | R1                     | 3.597                        | 0.661                          |
### Application scenario: Winter oilseed rape, 1 x 500 g/ha, pre-emergence

| Application scenario | FOCUS STEP 3 Scenario | Water body | PEC\textsubscript{SW}, Global max (µg/L) | PEC\textsubscript{SED}, Global max (µg/kg) |
|----------------------|-----------------------|------------|----------------------------------------|----------------------------------------|
|                      | D2                    | ditch      | 8.318                                  | 6.796                                  |
|                      |                      | stream     | 5.206                                  | 3.882                                  |
|                      | D3                    | ditch      | 3.191                                  | 1.339                                  |
|                      | D4                    | pond       | 0.427                                  | 0.964                                  |
|                      |                      | stream     | 2.743                                  | 0.463                                  |
|                      | D5                    | pond       | 0.207                                  | 0.523                                  |
|                      |                      | stream     | 2.959                                  | 0.525                                  |
|                      | R1                    | pond       | 0.122                                  | 0.138                                  |
|                      |                      | stream     | 2.096                                  | 0.203                                  |
|                      | R3                    | stream     | 6.044                                  | 1.270                                  |

### Application scenario: Winter oilseed rape, 1 x 500 g/ha, post-emergence

| Application scenario | FOCUS STEP 3 Scenario | Water body | PEC\textsubscript{SW}, Global max (µg/L) | PEC\textsubscript{SED}, Global max (µg/kg) |
|----------------------|-----------------------|------------|----------------------------------------|----------------------------------------|
|                      | D2                    | ditch      | 20.377                                 | 15.351                                 |
|                      |                      | stream     | 12.707                                 | 8.999                                  |
|                      | D3                    | ditch      | 3.181                                  | 0.936                                  |
|                      | D4                    | pond       | 0.787                                  | 1.728                                  |
|                      |                      | stream     | 2.747                                  | 0.860                                  |
|                      | D5                    | pond       | 0.306                                  | 0.764                                  |
|                      |                      | stream     | 2.960                                  | 0.521                                  |
|                      | R1                    | pond       | 0.136                                  | 0.181                                  |
|                      |                      | stream     | 2.096                                  | 0.203                                  |
|                      | R3                    | stream     | 11.180                                 | 2.728                                  |

### Application scenario: Maize, 1 x 864 g/ha, pre-emergence

| Application scenario | FOCUS STEP 3 & 4 Scenario | Water body | FOCUS Step 4 mitigation measures |
|----------------------|---------------------------|------------|-------------------------------|
|                      |                           |            | 5 m D | 10 m D | 20 m D | 10 m D + R | 20 m D + R |
|                      |                           |            | PEC\textsubscript{sw}, Global max [µg L\textsuperscript{-1}] |
|                      | D3                        | ditch      | 1.483 | 0.786 | 0.409 | 0.786 | 0.409 |
|                      | D4                        | pond       | 0.187 | 0.137 | 0.090 | 0.137 | 0.090 |
|                      |                           | stream     | 1.577 | 0.842 | 0.440 | 0.842 | 0.440 |
|                      | D5                        | pond       | 0.190 | 0.139 | 0.093 | 0.139 | 0.093 |
|                      |                           | stream     | 1.706 | 0.911 | 0.476 | 0.911 | 0.476 |
|                      | D6                        | ditch      | 1.535 | 0.838 | 0.460 | 0.838 | 0.460 |
|                      | R1                        | pond       | 0.314 | 0.282 | 0.253 | 0.164 | 0.095 |
|                      |                           | stream     | 10.478 | 10.478 | 10.478 | 4.442 | 2.266 |
|                      | R2                        | stream     | 7.504 | 7.504 | 7.504 | 3.362 | 1.750 |
### Application scenario

| FOCUS STEP 3 & 4 Scenario | Water body | FOCUS Step 4 mitigation measures |
|---------------------------|------------|---------------------------------|
|                           |            | 5 m D  | 10 m D  | 20 m D  | 10 m D + R | 20 m D + R |
| D3                        | ditch      | 1.484  | 0.792  | 0.416  | 0.792       | 0.416       |
| D4                        | pond       | 0.198  | 0.145  | 0.095  | 0.145       | 0.095       |
| D5                        | stream     | 1.683  | 0.901  | 0.471  | 0.902       | 0.471       |
| D6                        | pond       | 0.212  | 0.159  | 0.109  | 0.159       | 0.109       |
| R1                        | stream     | 11.503 | 11.503 | 11.503 | 5.208       | 2.723       |
| R2                        | stream     | 9.647  | 9.647  | 9.647  | 4.247       | 2.200       |
| R3                        | stream     | 25.173 | 25.173 | 25.173 | 11.382      | 5.948       |
| R4                        | stream     | 28.803 | 28.803 | 28.803 | 13.093      | 6.863       |

**PECsw, Global max [µg L⁻¹]**

**Drift mitigation using no-spray buffer zones**

**Runoff mitigation using vegetated filter strips**

### Application scenario

| FOCUS STEP 3 & 4 Scenario | Water body | FOCUS Step 4 mitigation measures |
|---------------------------|------------|---------------------------------|
|                           |            | 5 m D  | 10 m D  | 20 m D  | 10 m D + R | 20 m D + R |
| R3                        | stream     | 23.084 | 23.084 | 23.084 | 10.548      | 5.539      |
| R4                        | stream     | 13.805 | 13.805 | 13.805 | 6.285       | 3.295      |

**PECsw, Global max [µg L⁻¹]**

**Drift mitigation using no-spray buffer zones**

**Runoff mitigation using vegetated filter strips**
### Application scenario

| FOCUS STEP 3 & 4 Scenario | Water body | FOCUS Step 4 mitigation measures |
|---------------------------|------------|----------------------------------|
| 5 m D                     | 10 m D     | 20 m D                           | 10 m D + R | 20 m D + R |
| 5 m D                     | 10 m D     | 20 m D                           |            |            |
| 5 m D                     | 10 m D     | 20 m D                           |            |            |
| PEC_{sw}, Global max [µg L⁻¹] |

**Sugar beet, 1 x 720 g/ha, post-emergence**

| D3 | ditch | 1.237 | 0.657 | 0.345 | 0.657 | 0.345 |
| D4 | pond  | 0.169 | 0.125 | 0.084 | 0.125 | 0.084 |
|    | stream | 1.346 | 0.723 | 0.380 | 0.723 | 0.380 |
| R1 | pond  | 0.249 | 0.221 | 0.195 | 0.133 | 0.078 |
|    | stream | 5.200 | 5.200 | 5.200 | 2.375 | 1.246 |

D Drift mitigation using no-spray buffer zones
R Runoff mitigation using vegetated filter strips

**sunflowers, 1 x 864 g/ha, pre-emergence**

| D5 | pond  | 0.190 | 0.140 | 0.094 | 0.140 | 0.094 |
|    | stream | 1.584 | 0.845 | 0.441 | 0.845 | 0.441 |
| R1 | pond  | 0.339 | 0.308 | 0.279 | 0.174 | 0.100 |
|    | stream | 43.354 | 43.354 | 43.354 | 19.801 | 10.394 |
| R3 | stream | 37.897 | 37.897 | 37.897 | 16.627 | 8.594 |

D Drift mitigation using no-spray buffer zones
R Runoff mitigation using vegetated filter strips

**Winter oilseed rape, 1 x 500 g/ha, pre-emergence**

| D2 | ditch | 8.318 | 8.318 | 8.318 | 8.318 | 8.318 |
|    | stream | 5.206 | 5.206 | 5.206 | 5.206 | 5.206 |
| D3 | ditch | 0.870 | 0.472 | 0.249 | 0.472 | 0.249 |
| D4 | pond  | 0.425 | 0.420 | 0.416 | 0.420 | 0.416 |
|    | stream | 1.005 | 0.710 | 0.710 | 0.710 | 0.710 |
| D5 | pond  | 0.207 | 0.207 | 0.207 | 0.207 | 0.207 |
|    | stream | 0.644 | 0.644 | 0.644 | 2.754 | 1.445 |
| R1 | pond  | 0.076 | 0.075 | 0.050 | 0.075 | 0.050 |
|    | stream | 0.644 | 0.644 | 0.644 | 2.754 | 1.445 |
| R3 | stream | 0.076 | 0.075 | 0.050 | 0.075 | 0.050 |

D Drift mitigation using no-spray buffer zones
R Runoff mitigation using vegetated filter strips
| Application scenario | FOCUS STEP 3 & 4 Scenario | Water body | FOCUS Step 4 mitigation measures |
|----------------------|---------------------------|-----------|--------------------------------|
|                      |                           |           | 5 m D | 10 m D | 20 m D | 10 m D + R | 20 m D + R |
| Winter oilseed rape, 1 x 500 g/ha, post-emergence | D2               | ditch     | 20.377 | 20.377 | 20.377 | 20.377 | 20.377 |
|                     |                           | stream    | 12.707 | 12.707 | 12.707 | 12.707 | 12.707 |
|                     | D3               | ditch     | 0.876  | 0.485  | 0.258  | 0.485  | 0.258  |
|                     | D4               | pond      | 0.783  | 0.776  | 0.770  | 0.776  | 0.770  |
|                     |                           | stream    | 1.342  | 1.342  | 1.342  | 1.342  | 1.342  |
|                     | D5               | pond      | 0.306  | 0.306  | 0.306  | 0.306  | 0.306  |
|                     |                           | stream    | 1.089  | 0.584  | 0.342  | 0.584  | 0.342  |
|                     | R1               | pond      | 0.116  | 0.084  | 0.055  | 0.084  | 0.055  |
|                     |                           | stream    | 0.877  | 0.877  | 0.877  | 0.406  | 0.211  |
|                     | R3               | stream    | 11.180 | 11.180 | 11.180 | 5.095  | 2.671  |

D Drift mitigation using no-spray buffer zones
R Runoff mitigation using vegetated filter strips

**Metabolite M656PH003**

**Parameters used in FOCUSsw step 1 and 2**

- Molecular weight (g/mol): 241.4
- Water solubility at 25 °C (mg/L): 1449 (Water solubility of parent (at 25 °C))
- Koc (mL/g): 0 / 10000 (worst case default values for water and sediment)
- DT₅₀ soil (d): 1000 (default)
- DT₅₀ water/sediment system (d): 1000 (default)
- DT₅₀ water (d): 1000 (default)
- DT₅₀ sediment (d): 1000 (default)
- Maximum occurrence observed (% molar basis with respect to the parent)
- Total Water and Sediment: 14.4%
- Soil: no formation

**Application rates used in FOCUSsw step 1 and 2**

- Product BAS 656 12 H with 720 g/L dimethenamid-P:
  - Crop: Maize
  - Application rate (g a.s./ha): 1 x 864
  - Crop interception (%): no interception & minimal crop cover
  - Season of application: March- May
- Crop: soy beans, sunflowers and sugar beets
  - Application rate (g/ha): 1 x 864
  - Crop interception (%): no interception
  - Season of application: March- May

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**Version control no. of FOCUS calculator:**

Step 1-2, version 2.1
## Application scenario

**FOCUS model** | **Metabolite M656PH003** | **PEC\(_{SW, \text{max}}\) (µg/L)** | **PEC\(_{SED, \text{max}}\) (µg/kg)**
--- | --- | --- | ---
### Maize, soybeans, sunflowers, sugar beets
1 x 864 g a.s./ha, pre-emergence

FOCUS Step 1 | 1.0015 | 6.983
FOCUS Step 2
North Europe | 1.0015 | 6.983
South Europe | 1.0015 | 6.983

### Maize
1 x 864 g a.s./ha, post-emergence

FOCUS Step 1 | 1.0015 | 6.963
FOCUS Step 2
North Europe | 1.0015 | 6.963
South Europe | 1.0015 | 6.963

### Sugar beet
1 x 720 g a.s./ha, post-emergence

FOCUS Step 1 | 0.8346 | 5.819
FOCUS Step 2
North Europe | 0.8346 | 5.803
South Europe | 0.8346 | 5.803

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Crop: sugar beets

Application rate (g/ha): 1 x 720

Crop interception (%): no interception & minimal crop cover

Season of application: March-May

Product BAS 830 01 H with 333 g/L dimethenamid-P & 167 g/L quinmerac.

Crop: winter oilseed rape

Application rate (g/ha): 500 g/ha dimethenamid-P (+ 250 g/ha quinmerac)

Crop interception (%): no interception & minimal crop cover

Season of application: Oct-Feb
### Application scenario: Winter oilseed rape (1 x 500 g a.s./ha, pre-emergence)

| FOCUS model     | Metabolite M656PH003 |
|-----------------|----------------------|
|                 | PEC\(_{SW, \text{max}}\) (µg/L) | PEC\(_{SED, \text{max}}\) (µg/kg) |
| FOCUS Step 1    | 0.580                | 2.482               |
| FOCUS Step 2    | 0.580                | 2.482               |
| North Europe    | 0.580                | 2.475               |
| South Europe    | 0.580                | 2.475               |

### Application scenario: Winter oilseed rape (1 x 500 g a.s./ha, post-emergence)

| FOCUS model     | Metabolite M656PH003 |
|-----------------|----------------------|
|                 | PEC\(_{SW, \text{max}}\) (µg/L) | PEC\(_{SED, \text{max}}\) (µg/kg) |
| FOCUS Step 1    | 0.580                | 2.482               |
| FOCUS Step 2    | 0.580                | 2.482               |
| North Europe    | 0.580                | 2.475               |
| South Europe    | 0.580                | 2.475               |

**Metabolite M656PH023**

**Version control no. of FOCUS calculator:**
Step 1-2, version 2.1

**Parameters used in FOCUSsw step 1 and 2**
- Molecular weight (g/mol): 271
- Water solubility at 25°C (mg/L): 1449 (Water solubility of parent (at 25 °C))
- Koc (mL/g): 11.9 (arithmetic mean, n=5)
- DT\(_{50}\) soil (d): 28.2 (Geometric mean of normalized (pF 2, 20 °C) laboratory DT\(_{50}\) n = 5)
- DT\(_{50}\) water/sediment system (d): 1000 (default)
- DT\(_{50}\) water (d): 1000 (default)
- DT\(_{50}\) sediment (d): 1000 (default)
- Maximum occurrence observed (% molar basis with respect to the parent)
- Total Water and Sediment: 11.4 %
- Soil: 13.4 %

**Application rates used in FOCUSsw step 1 and 2**
- Product BAS 656 12 H with 720 g/L dimethenamid-P:
  - Crop: Maize
  - Application rate (g a.s./ha): 1 x 864
  - Crop interception (%): no interception & minimal crop cover
  - Season of application: March- May
- Crop: soy beans, sunflowers and sugar beets
  - Application rate (g/ha): 1 x 864
  - Crop interception (%): no interception
  - Season of application: March- May
Crop: sugar beets
Application rate (g/ha): 1 x 720
Crop interception (%): no interception & minimal crop cover
season of application: March-May
Product BAS 830 01 H with 333 g/L dimethenamid-P & 167 g/L quinmerac:
Crop: winter oilseed rape
Application rate (g/ha): 500 g/ha dimethenamid-P (+ 250 g/ha quinmerac)
Crop interception (%): no interception & minimal crop cover
season of application: Oct-Feb

| Application scenario | FOCUS model          | Metabolite M656PH023 |
|----------------------|----------------------|----------------------|
|                      |                      | PEC_{SW, \text{max}} | PEC_{SED, \text{max}} |
|                      |                      | (\mu g/L)            | (\mu g/kg)           |
| Maize, soybeans, sunflowers, sugar beets 1 x 864 g/ha, pre-emergence | FOCUS Step 1 | 38.220 | 4.442 |
|                      | FOCUS Step 2         | 7.654                | 0.909                |
|                      | North Europe         | 14.411               | 1.712                |
|                      | South Europe         |                      |                      |
| Maize 1 x 864 g/ha, post-emergence | FOCUS Step 1 | 37.218 | 4.442 |
|                      | FOCUS Step 2         | 5.953                | 0.707                |
|                      | North Europe         | 11.028               | 1.311                |
|                      | South Europe         |                      |                      |
| Sugar beet 1 x 720 g/ha, post-emergence | FOCUS Step 1 | 31.849 | 3.702 |
|                      | FOCUS Step 2         | 5.343                | 0.623                |
|                      | North Europe         | 9.754                | 1.160                |
|                      | South Europe         |                      |                      |
### Application scenario

| Metabolite M656PH023 | FOCUS model | PEC\textsubscript{SW, max} (µg/L) | PEC\textsubscript{SED, max} (µg/kg) |
|----------------------|-------------|----------------------------------|----------------------------------|
| Winter oilseed rape 1 x 500 g/ha, pre-emergence | FOCUS Step 1 | 22.117 | 2.571 |
| | FOCUS Step 2 | North Europe | 10.298 | 1.224 |
| | | South Europe | 8.340 | 0.991 |

### Application scenario

| Metabolite M656PH023 | FOCUS model | PEC\textsubscript{SW, max} (µg/L) | PEC\textsubscript{SED, max} (µg/kg) |
|----------------------|-------------|----------------------------------|----------------------------------|
| Winter oilseed rape 1 x 500 g/ha, post-emergence | FOCUS Step 1 | 22.117 | 2.571 |
| | FOCUS Step 2 | North Europe | 6.382 | 0.759 |
| | | South Europe | 5.207 | 0.619 |

### Parameters used in FOCUSsw step 1 and 2

- **Molecular weight (g/mol):** 321.4
- **Water solubility at 25 °C (mg/L):** 1449 (Water solubility of parent (at 25 °C))
- **K\textsubscript{oc} (mL/g):** 7.0 (arithmetic mean, n=6)
- **DT\textsubscript{50} soil (d):** 14.3 (geometric mean, lab data at 20 °C, pF2, n=4)
- **DT\textsubscript{50} water/sediment system (d):** 1000 (default)
- **DT\textsubscript{50} water (d):** 1000 (default)
- **DT\textsubscript{50} sediment (d):** 1000 (default)
- **Maximum occurrence observed (% molar basis with respect to the parent):** Total Water and Sediment: 6.3 %
- **Soil: 13.3 %**

### Application rates used in FOCUSsw step 1 and 2

- **Product BAS 656 12 H with 720 g/L dimethenamid-P:**
  - **Crop:** Maize
  - **Application rate (g a.s./ha):** 1 x 864
  - **Crop interception (%):** no interception & minimal crop cover
  - **season of application:** March - May
- **Crop:** soy beans, sunflowers and sugar beets
  - **Application rate (g/ha):** 1 x 864
  - **Crop interception (%):** no interception
  - **season of application:** March - May
Crop: sugar beets
Application rate (g/ha): 1 x 720
Crop interception (%): no interception & minimal crop cover
season of application: March - May

Product BAS 830.01 H with 333 g/L dimethenamid-P & 167 g/L quinmerac:

Crop: winter oilseed rape
Application rate (g/ha): 500 g/ha dimethenamid-P (+ 250 g/ha quinmerac)
Crop interception (%): no interception & minimal crop cover
season of application: Oct-Feb

| Application scenario                                      | FOCUS model   | Metabolite M656PH027 |
|----------------------------------------------------------|---------------|----------------------|
|                                                          | FOCUS Step 1  | PEC\_SW, max (µg/L)  |
|                                                          |               | PEC\_SED, max (µg/kg)|
| Maize, soybeans, sunflowers, sugar beets 1 x 864 g/ha, pre-emergence | 44.525        | 5.229                |
|                                                          | FOCUS Step 2  |                      |
|                                                          | North Europe  | 7.815                |
|                                                          | South Europe  | 15.054               |

| Application scenario                                      | FOCUS model   | Metabolite M656PH027 |
|----------------------------------------------------------|---------------|----------------------|
|                                                          | FOCUS Step 1  | PEC\_SW, max (µg/L)  |
|                                                          |               | PEC\_SED, max (µg/kg)|
| Maize 1 x 864 g/ha, post-emergence                       | 44.525        | 5.229                |
|                                                          | FOCUS Step 2  |                      |
|                                                          | North Europe  | 6.005                |
|                                                          | South Europe  | 1.359                |

| Application scenario                                      | FOCUS model   | Metabolite M656PH027 |
|----------------------------------------------------------|---------------|----------------------|
|                                                          | FOCUS Step 1  | PEC\_SW, max (µg/L)  |
|                                                          |               | PEC\_SED, max (µg/kg)|
| Sugar beet 1 x 720 g/ha, post-emergence                  | 37.104        | 4.358                |
|                                                          | FOCUS Step 2  |                      |
|                                                          | North Europe  | 5.306                |
|                                                          | South Europe  | 10.132               |
### Application scenario

| Application scenario | FOCUS model      | Metabolite M656PH027 |
|----------------------|------------------|----------------------|
|                      |                  | PEC\textsubscript{SW, max} (µg/L) | PEC\textsubscript{SED, max} (µg/kg) |
| Winter oilseed rape 1 x 500 g/ha, pre-emergence | FOCUS Step 1 | 25.767 | 3.026 |
|                      | FOCUS Step 2 | North Europe | 10.807 | 1.285 |
|                      |              | South Europe | 8.712 | 1.036 |
| Winter oilseed rape 1 x 500 g/ha, post-emergence | FOCUS Step 1 | 25.767 | 3.026 |
|                      | FOCUS Step 2 | North Europe | 6.617 | 0.787 |
|                      |              | South Europe | 5.361 | 0.637 |

### Metabolite M656PH031

**Version control no. of FOCUS calculator:**
Step 1-2, version 2.1

**Parameters used in FOCUSsw step 1 and 2**

- Molecular weight (g/mol): 347
- Water solubility at 25 °C (mg/L): 1000 (default)
- K\textsubscript{oc} (mL/g): 1 (worst case)
- DT\textsubscript{50} soil (d): 51.9 (geometric mean, lab data at 20 °C, pF2, n=5)
- DT\textsubscript{50} water/sediment system (d): 1000 (default)
- DT\textsubscript{50} water (d): 1000 (default)
- DT\textsubscript{50} sediment (d): 1000 (default)
- Maximum occurrence observed (% molar basis with respect to the parent)
- Total Water and Sediment: not formed
- Soil: 10.34 %

**Application rates used in FOCUSsw step 1 and 2**

- Product BAS 656 12 H with 720 g/L dimethenamid-P:
  - Crop: Maize
  - Application rate (g a.s./ha): 1 x 864
  - Crop interception (%): no interception & minimal crop cover
  - season of application: March- May
- Crop: soy beans, sunflowers and sugar beets
  - Application rate (g/ha): 1 x 864
  - Crop interception (%): no interception
  - season of application: March- May
Crop: sugar beets  
Application rate (g/ha): 1 x 720  
Crop interception (%): no interception & minimal crop cover  
season of application: March- May  
Product BAS 830 01 H with 333 g/L dimethenamid-P & 167 g/L quinmerac:  
Crop: winter oilseed rape  
Application rate (g/ha): 500 g/ha dimethenamid-P (+ 250 g/ha quinmerac)  
Crop interception (%): no interception & minimal crop cover  
season of application: Jun-Sep and Oct-Feb

| Application scenario                          | FOCUS model | Metabolite M656PH031 |
|----------------------------------------------|-------------|----------------------|
|                                              |             | PEC\textsubscript{SW, max} (µg/L) | PEC\textsubscript{SED, max} (µg/kg) |
| Maize, soybeans, sunflowers, sugar beets 1 x 864 g/ha, pre-emergence | FOCUS Step 1 | 37.418 | 0.374 |
|                                              | FOCUS Step 2 |             |        |
|                                              | North Europe | 7.094 | 0.071 |
|                                              | South Europe | 14.189 | 0.142 |

| Application scenario                          | FOCUS model | Metabolite M656PH031 |
|----------------------------------------------|-------------|----------------------|
|                                              |             | PEC\textsubscript{SW, max} (µg/L) | PEC\textsubscript{SED, max} (µg/kg) |
| Maize 1 x 864 g/ha, post-emergence           | FOCUS Step 1 | 37.418 | 0.374 |
|                                              | FOCUS Step 2 |             |        |
|                                              | North Europe | 5.321 | 0.053 |
|                                              | South Europe | 10.642 | 0.106 |

| Application scenario                          | FOCUS model | Metabolite M656PH031 |
|----------------------------------------------|-------------|----------------------|
|                                              |             | PEC\textsubscript{SW, max} (µg/L) | PEC\textsubscript{SED, max} (µg/kg) |
| Sugar beet 1 x 720 g/ha, post-emergence      | FOCUS Step 1 | 31.182 | 0.312 |
|                                              | FOCUS Step 2 |             |        |
|                                              | North Europe | 4.730 | 0.047 |
|                                              | South Europe | 9.459 | 0.095 |
# Application scenario | FOCUS model | Metabolite M656PH031 |
|---------------------|------------|---------------------|
|                     |            | **PEC<sub>SW, max</sub> (µg/L)** | **PEC<sub>SED, max</sub> (µg/kg)** |
| Winter oilseed rape 1 x 500 g/ha, pre-emergence | FOCUS Step 1 | 21.654 | 0.217 |
|                     | FOCUS Step 2 | 21.654 | 0.217 |
|                     | North Europe | 10.264 | 0.103 |
|                     | South Europe | 8.211 | 0.082 |
| Winter oilseed rape 1 x 500 g/ha, post-emergence | FOCUS Step 1 | 21.654 | 0.217 |
|                     | FOCUS Step 2 | 21.654 | 0.217 |
|                     | North Europe | 6.158 | 0.062 |
|                     | South Europe | 4.926 | 0.049 |

**Estimation of concentrations from other routes of exposure (Regulation (EU) N° 284/2013, Annex Part A, point 9.4)**

**Method of calculation**

| Not performed |

**PEC**

**Maximum concentration**

| Not performed |
Section 5 Ecotoxicology

Effects on birds and other terrestrial vertebrates (Regulation (EU) N° 283/2013, Annex Part A, point 8.1 and Regulation (EU) N° 284/2013, Annex Part A, point 10.1)

| Species                      | Test substance | Time scale | End point | Toxicity (mg/kg bw per day) |
|------------------------------|----------------|------------|-----------|----------------------------|
| **Birds**                    |                |            |           |                            |
| *Colinus virginianus*        | Dimethenamid-P | Acute      | LD$_{50}$ | 1068                       |
| *Colinus virginianus*        | Dimethenamid-P | Long-term  | LD$_{50}$/10 | 106.8                      |
| *Colinus virginianus*        | Dimethenamid   | Long-term  | NOAEL     | 114                        |
| (racemic mixture)            | (racemic mixture) |          |           |                            |
| **Mammals**                  |                |            |           |                            |
| Rat                          | Dimethenamid-P | Acute      | LD$_{50}$ | 466 (sexes combined)       |
| Rat                          | Dimethenamid   | Acute      | LD$_{50}$ | 397                        |
| Rat                          | Preparation    | Acute      | LD$_{50}$ | >500                       |
| Rat                          | BAS 656 08 H   | Acute      |           | <2000                      |
| Rat                          | Dimethenamid-P | Long-term  | NOAEL     | 25.0                       |

Endocrine disrupting properties (Annex Part A, points 8.1.5)
No indication on the potential for endocrine disrupting properties.

Additional higher tier studies (Annex Part A, points 10.1.1.2):
No data adequate for risk assessment submitted.

Terrestrial vertebrate wildlife (birds, mammals, reptile and amphibians) (Annex Part A, points 8.1.4, 10.1.3):
No data submitted.

Toxicity/exposure ratios for terrestrial vertebrates (Regulation (EU) N° 284/2013, Part A, Annex point 10.1)

BAS 656 12 H in maize, sweet corn*, soybean, sunflower, and beets at 1 x 864 g a.s./ha [includes splitting in 2 or 3 applications 5-10 day interval in sugar beet]

| Growth stage | Indicator or focal species | Time scale | DDD (mg/kg bw per day) | TER | Trigger |
|--------------|----------------------------|------------|------------------------|-----|---------|
| Screening Step (Birds)                     |                            |            |                        |     |         |
| Bare soil BBCH 00-09 | Small granivorous bird   | Acute      | 21.3                   | 50  | 10      |
| Maize/ sweet corn BBCH 10-16 | Small omnivorous bird  | Acute      | 137.2                  | 7.8 | 10      |
| Sugar beet BBCH 12-18$^{(1)}$ | Small omnivorous bird  | Acute      | 114.3                  | 9.3 | 10      |
| Bare soil BBCH 00-09 | Small granivorous bird  | Long-term  | 5.22                   | 20.1| 5       |
| Growth stage       | Indicator or focal species                                      | Time scale | DDD (mg/kg bw per day) | TER | Trigger |
|--------------------|-----------------------------------------------------------------|------------|------------------------|-----|---------|
| Maize/Sweet corn   | Small omnivorous bird                                           | Long-term  | 29.67                  | 3.6 | 5       |
| BBCH 10-16         |                                                                |            |                        |     |         |
| Sugar beet         | Small omnivorous bird                                           | Long-term  | 24.73                  | 4.3 | 5       |
| BBCH 12-18^1       |                                                                |            |                        |     |         |

### Tier 1 (Birds)

| Growth stage       | Indicator or focal species                                      | Time scale | DDD (mg/kg bw per day) | TER | Trigger |
|--------------------|-----------------------------------------------------------------|------------|------------------------|-----|---------|
| Maize/Sweet corn   | Medium granivorous bird 100 % seed                             | Acute      | 5.702                  | 187 | 10      |
| BBCH 10-29         |                                                                |            |                        |     |         |
| Maize/Sugar maize  | Small insectivorous bird 100 % soil dwelling arthropods        | Acute      | 9.072                  | 118 | 10      |
| BBCH 10-19 Leaf    |                                                                |            |                        |     |         |
| development        |                                                                |            |                        |     |         |
| Maize/Sweet corn   | Small omnivorous bird 25 % crop leaves 25 % weed seeds 50 % ground arthropods | Acute      | 20.736                 | 52  | 10      |
| BBCH 10-29         |                                                                |            |                        |     |         |
| Maize/Sweet corn   | Medium herbivorous/granivorous bird 100 % leaves               | Acute      | 48.038                 | 22  | 10      |
| BBCH 10-29         |                                                                |            |                        |     |         |
| Maize/Sweet corn   | Small insectivorous bird 50 % ground arthropods 50 % foliar arthropods | Acute      | 23.155                 | 46  | 10      |
| BBCH 10-19         |                                                                |            |                        |     |         |
| Sugar beet         | Small insectivorous bird 100 % soil dwelling arthropods        | Acute      | 7.8                    | 136.1 | 10   |
| BBCH 10-19^1       |                                                                |            |                        |     |         |
| (spring)           |                                                                |            |                        |     |         |
| Sugar beet         | Small omnivorous bird 25 % crop leaves 25 % weed seeds 50 % ground arthropods | Acute      | 17.3                   | 61.8 | 10     |
| BBCH 10-19^1       |                                                                |            |                        |     |         |
| Maize/Sweet corn   | Medium granivorous bird 100 % seed                             | Long-term  | 1.374                  | 78  | 5       |
| BBCH 10-29         |                                                                |            |                        |     |         |
| Maize/Sweet corn   | Small insectivorous bird 100 % soil dwelling arthropods        | Long-term  | 2.610                  | 41  | 5       |
| BBCH 10-19         |                                                                |            |                        |     |         |
| Maize/Sweet corn   | Small omnivorous bird 25 % crop leaves 25 % weed seeds 50 % ground arthropods | Long-term  | 4.991                  | 21  | 5       |
| BBCH 10-29         |                                                                |            |                        |     |         |
| Maize/Sweet corn   | Medium herbivorous/granivorous bird 100 % leaves               | Long-term  | 10.395                 | 10  | 5       |
| BBCH 10-29         |                                                                |            |                        |     |         |
| Maize/Sweet corn   | Small insectivorous bird 50 % ground arthropods 50 % foliar arthropods | Long-term  | 5.174                  | 21  | 5       |
| BBCH 10-19         |                                                                |            |                        |     |         |
| Sugar beet         | Small insectivorous bird 100 % soil dwelling arthropods        | Long-term  | 2.2                    | 47.4 | 5      |
| BBCH 10-19^1       |                                                                |            |                        |     |         |
| Growth stage     | Indicator or focal species                                      | Time scale | DDD (mg/kg bw per day) | TER | Trigger |
|------------------|-----------------------------------------------------------------|------------|------------------------|-----|---------|
| Sugar beet       | Small omnivorous bird                                           |            | 4.1                    | 25.7| 5       |
| BBCH 10-19† (spring) | 25 % crop leaves 25 % weed seeds 50 % ground arthropods             | Long-term  | 4.1                    | 25.7| 5       |
| Higher tier (birds):                                   | Not required                                                   |            |                        |     |         |
| Screening Step (Mammals)                              |                                                                |            |                        |     |         |
| Bare soil       | Small granivorous mammal                                       | Acute      | 12.42                  | 37.5| 10      |
| BBCH 00-10      |                                                                |            |                        |     |         |
| Maize/Sweet corn| Small herbivorous mammal                                       | Acute      | 117.85                 | 4.0 | 10      |
| BBCH 10-16      |                                                                |            |                        |     |         |
| Sugar beet      | Small herbivorous mammal                                       | Acute      | 85.25                  | 5.5 | 10      |
| BBCH 12-18†     |                                                                |            |                        |     |         |
| Bare soil       | Small granivorous mammal                                       | Long-term  | 3.022                  | 8.3 | 5       |
| BBCH 00-10      |                                                                |            |                        |     |         |
| Maize/Sweet corn| Small herbivorous mammal                                       | Long-term  | 53.1                   | 0.47| 5       |
| BBCH 10-16      |                                                                |            |                        |     |         |
| Sugar beet      | Small herbivorous mammal                                       | Long-term  | 16.6                   | 1.5 | 5       |
| BBCH 12-18†     |                                                                |            |                        |     |         |
| Tier 1 (Mammals)|                                                                |            |                        |     |         |
| Maize/Sweet corn| Small insectivorous mammal                                      | Acute      | 6.6                    | 71  | 10      |
| BBCH 10-19      | 100 % ground arthropods                                        |            |                        |     |         |
| Maize/Sweet corn| Small herbivorous mammal                                       | Acute      | 117.8                  | 4   | 10      |
| BBCH 10-29      | All maize shoots + later grass                                  |            |                        |     |         |
| Maize/Sweet corn| Small omnivorous mammal                                        | Acute      | 14.9                   | 31.4| 10      |
| BBCH 10-29      | 25 % weeds 50 % weed seeds 25 % ground arthropods               |            |                        |     |         |
| Maize/Sweet corn| Additional species: Large herbivorous mammal                   | Acute      | 30.3                   | 15  | 10      |
| BBCH 10-29      | 100 % crop leaves                                              |            |                        |     |         |
| Sugar beet      | Small insectivorous mammal                                      | Acute      | 5.5                    | 85.2| 10      |
| BBCH 10-19      | 100 % ground arthropods                                        |            |                        |     |         |
| Sugar beet      | Large herbivorous mammal                                       | Acute      | 25.3                   | 18.4| 10      |
| BBCH 10-39      | 100 % crop leaves                                              |            |                        |     |         |
| Sugar beet      | Small herbivorous mammal                                       | Acute      | 12.4                   | 37.6| 10      |
| BBCH 10-39      | 25 % weeds 50 % weed seeds 25 % ground arthropods               |            |                        |     |         |
| Sugar beet      | Small insectivorous mammals “shrew”                            | Acute      | 4.1                    | 98.0| 10      |
| BBCH 10-19†     |                                                                |            |                        |     |         |
| Sugar beet      | Large herbivorous mammals “lagomorph”                          | Acute      | 18.7                   | 21.2| 10      |
| BBCH 10-39†     |                                                                |            |                        |     |         |
| Sugar beet      | Small omnivorous mammals “mouse”                               | Acute      | 9.2                    | 43.3| 10      |
| BBCH 10-39†     |                                                                |            |                        |     |         |
| Sugar beet      | Small insectivorous mammals “shrew”                            | Acute      | 3.3                    | 121.4| 10      |
| BBCH 10-19†     |                                                                |            |                        |     |         |
### Growth stage | Indicator or focal species | Time scale | DDD (mg/kg bw per day) | TER | Trigger |
--- | --- | --- | --- | --- | --- |
Sugar beet BBCH 10-39<sup>1</sup> | Large herbivorous mammals “lagomorph” | Acute | 15.1 | 26.3 | 10 |
Sugar beet BBCH 10-39<sup>1</sup> | Small omnivorous mammals “mouse” | Acute | 7.4 | 53.7 | 10 |
Maize/Sweet corn BBCH 10-19 | Small insectivorous mammal 100 % ground arthropods | Long-term | 1.923 | 13 | 5 |
Maize/Sweet corn BBCH 10-29 | Small herbivorous mammal All maize shoots + later grass | Long-term | 33.11 | **0.76** | 5 |
Maize/Sweet corn BBCH 10-29 | Small omnivorous mammal 25 % weeds 50 % weed seeds 25 % ground arthropods | Long-term | 3.57 | 7.0 | 5 |
Maize/Sweet corn BBCH 10-29 | Additional species: Large herbivorous mammal 100 % crop leaves | Long-term | 7.6 | **3.3** | 5 |
Sugar beet BBCH 10-19 | Small insectivorous mammal 100 % ground arthropods | Long-term | 1.6 | 15.6 | 5 |
Sugar beet BBCH 10-39 | Large herbivorous mammal 100 % ground arthropods | Long-term | 5.46 | **4.6** | 5 |
Sugar beet BBCH 10-39 | Small omnivorous mammal 25 % weeds 50 % weed seeds 25 % ground arthropods | Long-term | 2.98 | 8.4 | 5 |
Sugar beet BBCH 10-19<sup>2</sup> 2 applications | Small insectivorous mammal 100 % ground arthropods | Long-term | 1.493 | 16.8 | 5 |
Sugar beet BBCH 10-39<sup>2</sup> 2 applications | Large herbivorous mammal 100 % crop leaves | Long-term | 5.082 | **4.9** | 5 |
Sugar beet BBCH 10-39<sup>2</sup> 2 applications | Small omnivorous mammal 25 % weeds 50 % weed seeds 25 % ground arthropods | Long-term | 2.772 | 9 | 5 |
Sugar beet BBCH 10-19<sup>3</sup> 3 applications | Small insectivorous mammal 100 % ground arthropods | Long-term | 0.995 | 25.1 | 5 |
Sugar beet BBCH 10-39<sup>3</sup> 3 applications | Large herbivorous mammal 100 % crop leaves | Long-term | 3.388 | 7.4 | 5 |
Sugar beet BBCH 10-39<sup>3</sup> 3 applications | Small omnivorous mammal 25 % weeds 50 % weed seeds 25 % ground arthropods | Long-term | 1.848 | 13.5 | 5 |

Higher tier (Mammals): Based on the data submitted no higher tier refinement can be conducted.

The acute and long-term risk to small herbivorous mammals for dimethenamid-P for the intended use in maize/sweet corn was discussed at the Pesticides Peer Review Meeting 165 (September 2017). Considering that small herbivorous mammals are not expected to be in the maize field at the earlier growth stages (BBCH 10-16) of maize, the experts considered that the ‘large herbivorous mammals’ scenario’ and ‘small omnivorous mammal’ scenario should be considered in the risk assessment for these uses.

**Risk from bioaccumulation and food chain behaviour** not relevant Log kow ≤ 3

**Risk from consumption of contaminated water**
### Scenarios

| Indicator or focal species | Time scale | PEC<sub>dw</sub>xDWR | TER | Trigger |
|---------------------------|------------|----------------------|-----|---------|
| **Puddle scenario, Screening step** | | | |
| 1) Birds: Application rate (in g a.s./ha) /EP: 864 / 106.8 = 8.1; 50 < koc < 500 L/kg), TER calculation not needed | | | |
| 2) Mammals: Application rate (in g a.s./ha)/ EP: 864/ 25 = 34.6; 50 <koc < 500 L/kg), TER calculation not needed | | | |
| 1) Worst case | | | |
| 2) 2 applications with 360 g a.s. / ha, 5 – 10 d distance | | | |
| 3) 3 applications with 240 g a.s/ha each, 5 – 10 d distance | | | |
*reported in the GAP as ‘sugar maize’

The risk to birds from the intended use on sunflowers is covered by the risk assessment for the uses on maize.

BAS 830 01 H (contains 333 g/L dimethenamid-P and 67 g/L quinmerac) in winter oilseed rape at 1 x 1.5 L preparation/ha, corresponding to 500 g dimethenamid-P/ha

| Growth stage | Indicator or focal species | Time scale | DDD (mg/kg bw per day) | TER | Trigger |
|--------------|---------------------------|------------|------------------------|-----|---------|
| **Tier 1 (Birds)** | | | | | | |
| Bare soil BBCH 00-09 | Small granivorous bird “finch” | Acute | a) 12.35 b) | a) 86.5 b) 68.3 | 10 |
| Bare soil BBCH 00-09 | Small omnivorous bird “lark” | Acute | a) 8.7 b) | a) 123 b) 96.9 | 10 |
| Bare soil BBCH 00-09 | Small insectivorous bird “wagtail” | Acute | a) 5.45 b) | a) 196 b) 155 | 10 |
| Oilseed rape BBCH 10-18 (shoots) | Large herbivorous bird "goose" | Acute | a) 19.5 b) | a) 54.8 b) 43.2 | 10 |
| Oilseed rape BBCH 10-18 | Small omnivorous bird “lark” | Acute | a) 12 b) | a) 89.0 b) 70.3 | 10 |
| Oilseed rape BBCH 10-18 | Medium herbivorous/granivorous bird "pigeon" | Acute | a) 27.8 b) | a) 38.4 b) 30.3 | 10 |
| Oilseed rape BBCH 10-18 | Small insectivorous bird “wagtail” | Acute | a) 5.45 b) | a) 196 b) 154.7 | 10 |
| Bare soil BBCH 00-09 | Small granivorous bird “finch” | Long-term | a) 3.02 b) | a) 35.4 b) 27.1 | 5 |
| Bare soil BBCH 00-09 | Small insectivorous bird “wagtail” | Long-term | a) 1.56 b) | a) 68.5 b) 52.3 | 5 |
| Bare soil BBCH 00-09 | Small omnivorous bird “lark” | Long-term | a) 2.17 b) | a) 49.2 b) 37.6 | 5 |
| Oilseed rape BBCH 10-18 (shoots) | Large herbivorous bird "goose" | Long-term | a) 4.21 b) | a) 25.4 b) 19.4 | 5 |
Growth stage | Indicator or focal species | Time scale | DDD (mg/kg bw per day) | TER | Trigger |
---|---|---|---|---|---|
Oilseed rape BBCH 10-18 | Small omnivorous bird “lark” | Long-term | a) 2.89 b) 2.89 | a) 37.0 b) 28.3 | 5 |
Oilseed rape BBCH 10-18 | Medium herbivorous/ granivorous bird “pigeon” | Long-term | a) 6.02 b) 6.02 | a) 17.7 b) 13.5 | 5 |
Oilseed rape BBCH 10-18 | Small insectivorous bird “wagtail” | Long-term | a) 1.56 b) 1.71 | a) 68.5 b) 52.3 | 5 |

Higher tier (birds):
Not required

Tier 1 (Mammals)

Bare soil BBCH 00-10 | Small omnivorous mammal “mouse” | Acute | 7.15 | 65 | 10 |
Oilseed rape BBCH 10-19 | Small insectivorous mammal “shrew” | Acute | 3.8 | 122 | 10 |
Oilseed rape (all season) | Large herbivorous mammal "largomorph" | Acute | 17.6 | 26.6 | 10 |
Oilseed rape BBCH 10-29 | Small omnivorous mammal “mouse” | Acute | 8.6 | 54.2 | 10 |
Bare soil BBCH 00-10 | Small omnivorous mammal “mouse” | Long-term | a) 1.56 b) 1.56 | a) 17 b) 15 | 5 |
Oilseed rape BBCH 10-19 | Small insectivorous mammal “shrew” | Long-term | a) 1.11 b) 1.11 | a) 23 b) 20 | 5 |
Oilseed rape (all season) | Large herbivorous mammal "largomorph" | Long-term | a) 3.79 b) 3.79 | a) 6.6 b) 5.9 | 5 |
Oilseed rape BBCH 10-29 | Small omnivorous mammal “mouse” | Long-term | a) 2.07 b) 2.07 | a) 12 b) 10 | 5 |

Higher tier (Mammals):
Not required

**Risk from bioaccumulation and food chain behaviour** not relevant Log kow ≤ 3

**Risk from consumption of contaminated water**

| Scenarios | Indicator or focal species | Time scale | PEC<sub>dw</sub>xDWR | TER | Trigger |
---|---|---|---|---|---|
Puddle scenario, Screening step
1) Birds: Application rate (in g a.s./ha) /EP = 500 / 106.8 = 4.6; 50 < koc < 500 L/kg), TER calculation not needed
2) Mammals: Application rate (in g a.s./ha) /EP = 500/ 25 = 20; 50 < koc < 500 L/kg), TER calculation not needed

a) Active substance dimethenamid-P
b) Representative formulation BAS 830 01 H: TER values for birds are calculated via LD<sub>50</sub> (mix) = \( \sum(X_i/\text{LD}_{50}(X))^{1/5} \)
1265 for acute assessment and via TER (mix) for long-term assessment, respectively. Note that dimethenamid-P is driving the acute risk and no additional mixture toxicity assessment is necessary to address the acute risk for mammals.

**Toxicity data for all aquatic tested species (Regulation (EU) N° 283/2013, Annex Part A, points 8.2 and Regulation (EU) N° 284/2013 Annex Part A, point 10.2)**

| Group | Test substance | Time-scale (Test type) | End point | Toxicity |
|-------|----------------|------------------------|-----------|----------|
| **Laboratory tests** | | | | |
| Fish | | | | |
| Oncorhynchus mykiss | a.s. (racemic mixture) | Acute 96 h (static) | Mortality, LC$_{50}$ | 2.6 mg a.s./L$_{50}$ (mm) |
| Oncorhynchus mykiss | a.s. | Acute 96 h (flow-through) | Mortality, LC$_{50}$ | 6.3 mg a.s./L$_{50}$ (mm) |
| Oncorhynchus mykiss | BAS 656 07 H$^2$ | Acute 96 h (static) | Mortality, LC$_{50}$ | 7.94 mg prep./L$_{50}$ (nom) (corresponding to 5.11 mg a.s./L) |
| Oncorhynchus mykiss | BAS 830 01 H | Acute 96 h (static) | Mortality, LC$_{50}$ | 19.8 mg prep./L$_{50}$ (nom) (corresponding to 6.07 mg dimethenamid-P/L and 3.02 mg quinmerac/L) |
| Oncorhynchus mykiss | M3 | Acute 96 h (static) | Mortality, LC$_{50}$ | 60.8 mg metabolite/L$_{50}$ (mm) |
| Oncorhynchus mykiss | M23 | Acute 96 h (static) | Mortality, LC$_{50}$ | > 87 mg metabolite/L$_{50}$ (mm) |
| Oncorhynchus mykiss | M27 | Acute 96 h (static) | Mortality, LC$_{50}$ | > 100 mg metabolite/L$_{50}$ (mm) |
| Oncorhynchus mykiss | a.s. (racemic mixture) | Chronic (ELS, flow-through) | Growth, NOEC, EC$_{10}$ | 0.12 mg a.s./L$_{10}$ (mm) |
| | | | | |
| Aquatic invertebrates | | | | |
| Americamysis bahia$^1$ (former name: Mysidopsis bahia) | a.s. racemic mixture | 48 h | Mortality, LC$_{50}$ | > 9.2 mg a.s./L$_{50}$ (mm) |
| | | 96 h (flow-through) | | 3.2 mg a.s./L$_{50}$ (mm) |
| Daphnia magna | BAS 656 07 H$^2$ | 48 h (static) | Mortality, EC$_{50}$ | 17.1 mg prep./L$_{50}$ (nom) (corresponding to 11.0 mg a.s./L) |
| Group                     | Test substance            | Time-scale (Test type) | End point               | Toxicity[^1]                                                                 |
|--------------------------|---------------------------|------------------------|-------------------------|-----------------------------------------------------------------------------|
| *Daphnia magna*          | BAS 830 01 H              | 48 h (static)          | Mortality, EC_{50}       | 58.7 mg prep./L\textsubscript{(nom)} (corresponding to 18.0 mg dimethenamid-P/L and 8.95 mg quinmerac/L) |
| *Daphnia magna*          | M3                        | 48 h (static)          | Mortality, EC\textsubscript{50} | > 101.6 mg metabolite/L\textsubscript{(mm)}                                  |
| *Daphnia magna*          | M23                       | 48 h (static)          | Mortality, EC\textsubscript{50} | > 95 mg metabolite/L\textsubscript{(mm)}                                    |
| *Daphnia magna*          | M27                       | 48 h (static)          | Mortality, EC\textsubscript{50} | > 100 mg metabolite/L\textsubscript{(mm)}                                  |
| *Daphnia magna*          | M31                       | 48 h (static)          | Mortality, EC\textsubscript{50} | > 100 mg metabolite/L\textsubscript{(mm)}                                  |
| *Daphnia magna*          | a.s. racemic mixture      | 21 d (semi-static)     | Reproduction, NOEC, EC_{10} | 0.68 mg a.s./L\textsubscript{(mm)}, 0.94 mg a.s./L\textsubscript{(mm)}         |
| **Algae**                |                           |                        |                         |                                                                             |
| *Pseudokirchneriella subcapitata* (syn. *Selenastrum capricornutum*) | a.s. | 72 h  
72 h  
72 h  
96 h  
96 h  
96 h  
120 h  
120 h  
120 h  
120 h (static) | Growth rate: E\textsubscript{r}C_{50} 
Yield: E\textsubscript{y}C_{50} 
Biomass: E\textsubscript{b}C_{50}  
Growth rate: E\textsubscript{r}C_{50} 
Yield: E\textsubscript{y}C_{50} 
Biomass: E\textsubscript{b}C_{50}  
Growth rate: E\textsubscript{r}C_{50} 
Yield: E\textsubscript{y}C_{50} 
Biomass: E\textsubscript{b}C_{50}  
NOEC | 0.0303  
0.0185  
0.0191  
0.0339  
0.0168  
0.0140  
0.0378  
0.0188  
0.0143  
0.0030 mg a.s./L\textsubscript{(nom)}  
0.0663  
0.0138  
0.0138 mg a.s./L\textsubscript{(nom)}  
0.0448 mg a.s./L\textsubscript{(nom)} |
|                          |                           |                        |                         |                                                                             |
| *Desmodesmus subspicatus* | a.s.                      | 72 h  
72 h  
72 h (static) | Growth rate: E\textsubscript{r}C_{50} 
Yield: E\textsubscript{y}C_{50} | > 0.0509  
0.0183 mg a.s./L\textsubscript{(mm)} |
| Group                          | Test substance | Time-scale (Test type) | End point                                                                 | Toxicity¹ |
|-------------------------------|----------------|------------------------|--------------------------------------------------------------------------|-----------|
| *Navicula pelliculosa*        | a.s.           | 72 h 72 h 96 h 96 h 120 h 120 h (static) | Growth rate: \(E_{rC_{50}}\)  Biomass: \(E_{bC_{50}}\)  Growth rate: \(E_{rC_{50}}\)  Biomass: \(E_{bC_{50}}\)  NOEC | 0.287 0.154 4.048 0.596 1.717 0.352 0.056 mg a.s./L\(_{\text{mm}}\) |
| *Ankistrodesmus bifraianu*    | a.s.           | 72 h 72 h (static)     | Growth rate: \(E_{rC_{50}}\)  Yield: \(E_{yC_{50}}\) | 0.0370 0.0097 mg a.s./L\(_{\text{mm}}\) |
| *Chlamydomonas reinhardtii*   | a.s.           | 72 h 72 h (static)     | Growth rate: \(E_{rC_{50}}\)  Yield: \(E_{yC_{50}}\) | 0.2245 0.0854 mg a.s./L\(_{\text{nom}}\) |
| *Monoraphidium griffithii*   | a.s.           | 72 h 72 h (static)     | Growth rate: \(E_{rC_{50}}\)  Yield: \(E_{yC_{50}}\) | 0.0250 0.0066 mg a.s./L\(_{\text{nom}}\) |
| *Neochloris aquatica*         | a.s.           | 72 h 72 h (static)     | Growth rate: \(E_{rC_{50}}\)  Yield: \(E_{yC_{50}}\) | > 1.000 0.3680 mg a.s./L\(_{\text{nom}}\) |
| *Planktosphaeria botryoides*  | a.s.           | 72 h 72 h (static)     | Growth rate: \(E_{rC_{50}}\)  Yield: \(E_{yC_{50}}\) | 0.9120 0.1110 mg a.s./L\(_{\text{nom}}\) |
| *Schroederia setigera*        | a.s.           | 72 h 72 h (static)     | Growth rate: \(E_{rC_{50}}\)  Yield: \(E_{yC_{50}}\) | > 0.4055 0.1267 mg a.s./L\(_{\text{nom}}\) |
| *Desmodesmus subspicatus*     | BAS 656 07 H²  | 72 h (static)          | \(E_{rC_{50}}\)  \(E_{yC_{50}}\) | 0.1327 0.0492 mg prep./L\(_{\text{nom}}\) (corresponding to 0.0854 and 0.0317 mg a.s./L) |
| *Pseudokirchneriella subcapitata* | BAS 830 01 H | 72 h (static)          | \(E_{rC_{50}}\)  \(E_{yC_{50}}\) | 0.166 0.0656 mg prep./L\(_{\text{nom}}\) (\(E_{rC_{50}}\): corresponding to 0.051 mg dimethenamid-P/L and 0.025 mg quinmerac/L; \(E_{yC_{50}}\): corresponding to 0.02 mg dimethenamid-P/L and 0.01 mg quinmerac/L) |
| Group                                                                 | Test substance | Time-scale (Test type) | End point                | Toxicity |
|----------------------------------------------------------------------|----------------|------------------------|--------------------------|----------|
| Desmodesmus subspicatus (syn. Scenedesmus subspicatus)               | M3             | 72 h (static)          | $E_{50}$, $E_{95}$      | 97.4     |
|                                                                      |                |                        |                          | 68.5 mg  |
|                                                                      |                |                        |                          | metabolite/L$_{(mm)}$ |
| Pseudokirchneriella subcapitata (syn. Selenastrum capricornutum)    | M23            | 72 h (static)          | $E_{50}$, $E_{95}$      | 94 mg    |
|                                                                      |                |                        |                          | metabolite/L$_{(mm)}$ > 94 mg |
|                                                                      |                |                        |                          | metabolite/L$_{(mm)}$ |
| Pseudokirchneriella subcapitata (syn. Selenastrum capricornutum)    | M27            | 72 h (static)          | $E_{50}$/$E_{95}$       | > 208 mg |
|                                                                      |                |                        |                          | metabolite/L$_{(mm)}$ |
| Pseudokirchneriella subcapitata                                     | M31            | 72 h (static)          | $E_{50}$/$E_{95}$       | > 100 mg |
|                                                                      |                |                        |                          | metabolite/ L$_{(nom)}$ |
| Higher plant                                                         |                |                        |                          |          |
| Lemna gibba                                                          | a.s.           | 14 d (semi-static)     | Frond number, $E_{50}$, Frond dry weight, $E_{50}$, NOEC (dry weight, phytotoxicity) | 0.01443 |
|                                                                      |                |                        |                          | 0.00599 mg |
|                                                                      |                |                        |                          | a.s./L$_{(mm)}$ |
|                                                                      |                |                        |                          | 0.000424 mg |
|                                                                      |                |                        |                          | a.s./L$_{(mm)}$ |
| Lemna gibba                                                          | a.s.           | 7 d (static)           | Frond number, $E_{50}$, Frond dry weight, $E_{50}$, Frond number, $E_{50}$, Frond dry weight, $E_{50}$ | 0.0568 |
|                                                                      |                |                        |                          | 0.0434 |
|                                                                      |                |                        |                          | 0.0168 |
|                                                                      |                |                        |                          | 0.0190 mg |
|                                                                      |                |                        |                          | a.s./L$_{(mm)}$ |
| Lemna gibba (with sediment)                                          | a.s.           | 7 d (static)           | Frond number, $E_{50}$, Frond dry weight, $E_{50}$, Frond number, $E_{50}$, Frond dry weight, $E_{50}$ | 0.0763 |
|                                                                      |                |                        |                          | > 0.1242 |
|                                                                      |                |                        |                          | 0.0255 |
|                                                                      |                |                        |                          | 0.0380 mg |
|                                                                      |                |                        |                          | a.s./L$_{(mm)}$ |
| Glyceria maxima                                                      | a.s.           | 14 d (static)          | Dry weight, $E_{50}$, Total length, $E_{50}$, Fresh/wet weight, $E_{50}$, Dry weight, $E_{50}$, Total length, $E_{50}$, Fresh/wet weight, $E_{50}$, # of leaves, $E_{50}$ | > 1.0 |
|                                                                      |                |                        |                          | 0.184 |
|                                                                      |                |                        |                          | 0.402 |
|                                                                      |                |                        |                          | 0.934 |
|                                                                      |                |                        |                          | 0.109 |
|                                                                      |                |                        |                          | 0.221 |
|                                                                      |                |                        |                          | 0.318 mg a.s./L$_{(nom)}$ |
| Group                  | Test substance | Time-scale (Test type) | End point                                                                 | Toxicity \(^1\)                              |
|-----------------------|----------------|------------------------|---------------------------------------------------------------------------|----------------------------------------------|
| Acorus calamus        | a.s.           | 13 d (static)          | Total length, Fresh/wet weight, Root formation \(E_{50}/E_{C50}\)         | \(> 1.314 \text{ mg a.s./L}_{(\text{mm})}\) |
| Iris pseudacorus      | a.s.           | 13 d (static)          | Total length, root formation \(E_{50}\), Fresh/wet weight, \(E_{50}\)     | \(> 0.754 \text{ mg a.s./L}_{(\text{mm})}\) |
|                       |                |                        | Total length, root formation \(E_{C50}\), Fresh/wet weight, \(E_{C50}\) | \(0.2020 \text{ mg a.s./L}_{(\text{mm})}\)  |
|                       |                |                        |                                                                           | \(> 0.754 \text{ mg a.s./L}_{(\text{mm})}\) |
| Ludwigia palustris    | a.s.           | 13 d (static)          | Total length, \(E_{50}\), Fresh/wet weight, \(E_{50}\)                   | 0.0280                                       |
|                       |                |                        | Total length, \(E_{C50}\), Fresh/wet weight, \(E_{C50}\)                 | 0.0183 mg a.s./L_{(\text{mm})}               |
|                       |                |                        |                                                                           | 0.033                                        |
|                       |                |                        |                                                                           | 0.043 mg a.s./L_{(\text{mm})}               |
| Mentha aquatica      | a.s.           | 13 d (static)          | Total length, \(E_{50}\), Fresh/wet weight, \(E_{50}\)                   | 0.180                                        |
|                       |                |                        | Total length, \(E_{C50}\), Fresh/wet weight, \(E_{C50}\)                 | \(> 1.088 \text{ mg a.s./L}_{(\text{mm})}\) |
|                       |                |                        |                                                                           | 0.206                                        |
|                       |                |                        |                                                                           | \(> 1.088 \text{ mg a.s./L}_{(\text{mm})}\) |
| Sparganium erectum   | a.s.           | 13 d (static)          | Total length, Root formation \(E_{50}\), Fresh/wet weight, \(E_{50}\)       | \(> 0.451\)                                 |
|                       |                |                        | Total length, Root formation \(E_{C50}\), Fresh/wet weight, \(E_{C50}\)     | \(0.243 \text{ mg a.s./L}_{(\text{mm})}\)  |
|                       |                |                        |                                                                           | \(> 0.451\)                                 |
|                       |                |                        |                                                                           | 0.369 mg a.s./L_{(\text{mm})}               |
| Veronica beccabunga  | a.s.           | 13 d (static)          | Total length, \(E_{50}\), Fresh/wet weight, \(E_{50}\)                   | 0.100                                        |
|                       |                |                        | Total length, \(E_{C50}\), Fresh/wet weight, \(E_{C50}\)                 | 0.227 mg a.s./L_{(\text{mm})}               |
|                       |                |                        |                                                                           | 0.104                                        |
|                       |                |                        |                                                                           | 0.323 mg a.s./L_{(\text{mm})}               |
| Ceratophyllum demersum| a.s.           | 9 d \(E_{C50}\) (static)| Total length, \(E_{50}\), Fresh/wet weight, \(E_{50}\)                | 0.00983                                       |
|                       |                |                        | Total length, \(E_{C50}\), Fresh/wet weight, \(E_{C50}\)                | 0.0157 mg a.s./L_{(\text{mm})}               |
|                       |                |                        |                                                                           | 0.0135                                       |
|                       |                |                        |                                                                           | 0.0279 mg a.s./L_{(\text{mm})}               |
| Group                        | Test substance          | Time-scale (Test type) | End point                                      | Toxicity$^1$ |
|-----------------------------|-------------------------|------------------------|------------------------------------------------|--------------|
| *Crassula recurva*          | a.s.                    | 12 d $E_{50}$ ($E_{50}$) (static) | Total length, $E_{50}$ | 0.0755  
> 0.340 mg a.s./L (mm) 
Total length, $E_{50}$ | 0.0795  
> 0.340 mg a.s./L (mm)  |
| *Elodea densa*              | a.s.                    | 12 d $E_{50}$ ($E_{50}$) (static) | Total length, $E_{50}$ | 0.165  
> 0.239 mg a.s./L (mm) 
Total length, $E_{50}$ | 0.188  
> 0.239 mg a.s./L (mm)  |
| *Myriophyllum spicatum*     | a.s.                    | 9 d $E_{50}$ ($E_{50}$) (static) | Total length, $E_{50}$ | 0.0671  
> 0.3065 mg a.s./L (mm) 
Total length, $E_{50}$ | 0.0884  
> 0.3065 mg a.s./L (mm)  |
| *Potamogeton crispus*       | a.s.                    | 9 d $E_{50}$ ($E_{50}$) (static) | Total length, $E_{50}$ | 0.158  
> 0.214 mg a.s./L (mm) 
Total length, $E_{50}$ | 0.191  
> 0.214 mg a.s./L (mm)  |
| *Vallisneria spiralis*      | a.s.                    | 12 d $E_{50}$ ($E_{50}$) (static) | Total length, $E_{50}$ | > 0.261 mg a.s./L (mm)  |
| *Monoraphidium griffithii*  | a.s.                    | 6 h exposure period 24 h exposure period Each + 72 h growth phase (static) | $E_{50}$ / $E_{50}$ | > 2.4  
> 1.2 mg a.s./L (nom)  |
| *(TTE study)*               |                        |                        | $E_{50}$ / $E_{50}$ | > 1.2 mg a.s./L (nom)  |
| *(TTE study)*               |                        |                        | $E_{50}$ / $E_{50}$ | > 1.2 (extrapolated: 2.485)  |
| *(TTE study)*               |                        |                        | $E_{50}$ / $E_{50}$ | 0.388 mg a.s./L (nom)  |
| Group                                    | Test substance | Time-scale (Test type) | End point                                                                 | Toxicity $^1$                      |
|------------------------------------------|----------------|------------------------|---------------------------------------------------------------------------|-----------------------------------|
| **Lemma gibba (TTE study) $^3$**          | a.s.           | **Scenario A:**        | Frond number, dry weight, $E_{\text{fr}}C_{50}$ / $E_{\text{fr}}C_{50}$  | > 0.500                           |
|                                          |                | 12 h exposure period:  | Frond number, dry weight, $E_{\text{fr}}C_{50}$ / $E_{\text{fr}}C_{50}$  | > 0.500                           |
|                                          |                | 24 h exposure period:  | Dry weight, $E_{\text{d}}C_{50}$                                          | 0.288                             |
|                                          |                | 36 h exposure period:  | Dry weight, $E_{\text{d}}C_{50}$                                          | 0.458                             |
|                                          |                | Each + 7 d growth phase (static) | Dry weight, $E_{\text{d}}C_{50}$                                          | 0.253 mg a.s./L(nom)             |
|                                          |                |                         |                                                                           |                                   |
|                                          |                | **Scenario B:**        | Frond number, dry weight, $E_{\text{fr}}C_{50}$ / $E_{\text{fr}}C_{50}$  | > 0.250 peak                      |
|                                          |                | “0.250 mg/L max. peak”: | Frond number, dry weight, $E_{\text{fr}}C_{50}$ / $E_{\text{fr}}C_{50}$  | > 0.500 peak mg a.s./L(nom)      |
|                                          |                | “0.500 mg max. peak”:  | Frond number, dry weight, $E_{\text{fr}}C_{50}$ / $E_{\text{fr}}C_{50}$  |                                   |
|                                          |                | Double peak exposure + 7 d growth phase (static) | Dry weight, $E_{\text{d}}C_{50}$                                          |                                   |
| **Lemma gibba (non-GLP TTE) $^3$**       | a.s.           | 2 x 24 h peaks separated by non-exposure periods varying between 1 and 7 d + 6 d growth phase (static) | Frond number, $E_{\text{fr}}C_{50}$ / $E_{\text{fr}}C_{50}$  | > 0.250 mg a.s./L(nom)           |
| **Ceratophyllum demersum (TTE study) $^3$** | a.s.           | 24 h exposure period:  | Dry weight, Total length, Fresh/wet weight, $E_{\text{d}}C_{50}$ / $E_{\text{d}}C_{50}$ | > 3.0                             |
|                                          |                | 48 h exposure period:  | Dry weight, Total length, Fresh/wet weight, $E_{\text{d}}C_{50}$ / $E_{\text{d}}C_{50}$ | > 3.0 mg a.s./L(nom)             |
|                                          |                | Each + 7 d growth phase (static) |                                                                           |                                   |
| **Lemma gibba**                          | BAS 656 07 H$^2$ | 7 d (static)           | Frond number, $E_{\text{fr}}C_{50}$                                      | 0.054                             |
|                                          |                |                        | Frond number, $E_{\text{fr}}C_{50}$                                      | 0.0085 mg prep./L(nom) (corresponding to 0.0347 and 0.0055 mg a.s./L) |
| Group            | Test substance | Time-scale (Test type) | End point                          | Toxicity¹ |
|------------------|----------------|------------------------|------------------------------------|-----------|
| **Lemma gibba**  | BAS 830 01 H   | 7 d (static)           | Frond number, E₅₀, E₅₀          | 0.573     |
|                  |                |                        | Dry weight, E₅₀, E₅₀             | > 0.810   |
|                  |                |                        | Frond number, E₅₀, E₅₀          | 0.0863    |
|                  |                |                        | Dry weight, E₅₀, E₅₀             | 0.1302 mg  |
|                  |                |                        | prep./Lₑₑₑ (nom)                 |           |
|                  |                |                        | (E₅₀ frond no; corresponding to |           |
|                  |                |                        | 0.1755 mg dimethenamid-P/L       |           |
|                  |                |                        | and 0.0873 mg quinmerac/L;       |           |
|                  |                |                        | E₅₀ dry weight: corresponding to |           |
|                  |                |                        | >0.248 mg dimethenamid-P/L       |           |
|                  |                |                        | and >0.123 mg quinmerac/L;       |           |
|                  |                |                        | E₅₀ frond no: corresponding to   |           |
|                  |                |                        | 0.0264 mg dimethenamid-P/L       |           |
|                  |                |                        | and 0.0132 mg quinmerac/L;       |           |
|                  |                |                        | E₅₀ dry weight: corresponding to |           |
|                  |                |                        | 0.0399 mg dimethenamid-P/L       |           |
|                  |                |                        | and 0.0198 mg quinmerac/L)       |           |
| **Lemma gibba**  | M31            | 7 d (static)           | Frond number, Dry weight, E₅₀/E₅₀| > 100 mg  |
|                  |                |                        | (nom)                            | metabolite/ L (nom) |
| **Lemma gibba**  | M62            | 7 d (semi-static)      | Frond number, Dry weight, E₅₀   | > 100     |
|                  |                |                        | E₅₀                              |           |
|                  |                |                        | Frond number, Dry weight, E₅₀   | 54.57     |
|                  |                |                        | E₅₀                              | 72.87 mg  |
|                  |                |                        | metabolite/ L (nom)              |           |
| **Lemma gibba**  | M43            | 7 d (static)           | Frond number, Dry weight, E₅₀/E₅₀| > 100 mg  |
|                  |                |                        | (nom)                            | metabolite/ L (nom) |
| **Lemma gibba**  | M55            | 7 d (static)           | Frond number, Dry weight, E₅₀/E₅₀| > 143 mg  |
|                  |                |                        | (nom)                            | metabolite/ L (nom) |
| Further testing on aquatic organisms | | | | |
| Combined SSD, 20 species | a.s. | - | HC₅ | 0.01545 mg a.s./L |
| Group                        | Test substance                  | Time-scale (Test type) | End point                                                                 | Toxicity<sup>1</sup> |
|-----------------------------|---------------------------------|------------------------|---------------------------------------------------------------------------|----------------------|
| (algae + aquatic plants)    | The SSD analysis was performed with the software ETX 2.0. The following species data were included in the calculation with the above listed endpoints indicated in bold: Algae: *Monoraphidium griffithii*, *Ankistrodesmus bibernanus*, *Pseudokirchneriella subcapitata*, *Chlamydomonas reinhardtii*, *Planktosphaeria botryoides*, *Navicula pelliculosa*, *Neochloris aquatica* Aquatic plants: *Ceratophyllum demersum*, *Lemna gibba*, *Ludwigia palustris*, *Crassula recurva*, *Myriophyllum spicatum*, *Veronica beccabunga*, *Glyceria maxima*, *Iris pseudacorus*, *Potamogeton crispus*, *Mentha aquatic*, *Elodea densa*, *Sparganium erectum*, *Acorus calamus* | The median estimate of the HC5 is 13.7 µg/L. The assessment factor is set at 3. Therefore the corresponding RAC is 4.57 µg a.s./L. |

Potential endocrine disrupting properties (Annex Part A, point 8.2.3)
No indication of endocrine disrupting properties of DMTA-P

<sup>1</sup> nominal concentration; <sup>2</sup> mean measured concentration; prep.: preparation; a.s.: active substance
<sup>3</sup> formulation similar to BAS 656 12 H
<sup>3</sup> Time-to-effect (TTE) studies were not used for the risk assessment
Bioconcentration in fish (Annex Part A, point 8.2.2.3)

| Parameter                                                                 | Active substance                   |
|---------------------------------------------------------------------------|------------------------------------|
| \( \log \text{P}_{\text{O/W}} \)                                         | 1.89                               |
| Steady-state bioconcentration factor (BCF) (total wet weight/normalised to 5% lipid content) | 58* (whole fish), Not required     |
| Uptake/depuration kinetics BCF (total wet weight/normalised to 5% lipid content) | Not required                       |
| Annex VI Trigger for the bioconcentration factor                          | Not required                       |
| Clearance time (days) \( (\text{CT}_{50}) \)                            | Not required                       |
| \( (\text{CT}_{90}) \)                                                  |                                    |
| Level and nature of residues (%) in organisms after the 14 day depuration phase | Not required                       |

* based on total \(^{14}\text{C}\)
Toxicity/exposure ratios for the most sensitive aquatic organisms (Regulation (EU) No 284/2013, Annex Part A, point 10.2)

**BAS 656 12 H**

FOCUS$_{sw}$ step 1-2 - TERs for dimethenamid-P – BAS 656 12 H in maize, soybeans and sunflowers and FOCUS$_{sw}$ step 3 in maize at 1 x 864 g a.s./ha

| Scenario                          | PEC global max (µg L) | fish acute | fish chronic | Aquatic invertebrates | Aquatic invertebrates prolonged | Algae | Higher plant |
|-----------------------------------|----------------------|------------|--------------|-----------------------|---------------------------------|-------|---------------|
|                                   | Oncorhynchus mykiss  | Oncorhynchus mykiss | Americanysis bahia | Daphnia magna | Monoraphidium griffithii | Lenma gibba |
|                                   | LC$_{50}$ | NOEC | EC$_{50}$ | NOEC | EC$_{50}$ | EC$_{50}$ | EC$_{50}$ |
| FOCUS Step 1                      | 243.39 | 10.68 | 0.49 | 13.15 | 2.79 | 0.10 | 0.059 |
| North Europe                       | 43.14 | 60.27 | 2.78 | 74.17 | 15.76 | 0.58 | 0.33 |
| South Europe                       | 79.99 | 32.51 | 1.50 | 40.01 | 8.50 | 0.31 | 0.18 |
| FOCUS Step 2*                      |            |      |      |       |       |      |      |
| North Europe                       | 33.93 | 76.63 | 3.54 | 94.31 | 20.04 | 0.74 | 0.42 |
| South Europe                       | 61.56 | 42.23 | 1.95 | 51.98 | 11.05 | 0.41 | 0.23 |
| FOCUS Step 3* pre-emergence in maize |          |      |      |       |       |      |      |
| D3/ditch                          | 4.524 | 574.71 | 26.53 | 707.34 | 150.31 | 5.53 | 3.2 |
| D4/pond                           | 0.212 | 12264.15 | 566.04 | 15094.34 | 3207.55 | 117.9 | 67.9 |
| D4/stream                         | 3.721 | 698.74 | 32.25 | 859.98 | 182.75 | 6.72 | 3.9 |
| D5/pond                           | 0.215 | 12093.02 | 558.14 | 14883.72 | 3162.79 | 116.28 | 67.0 |
| D5/stream                         | 4.025 | 645.96 | 29.81 | 795.03 | 168.94 | 6.21 | 3.6 |
| D6/ditch                          | 4.578 | 567.93 | 26.21 | 699.00 | 148.54 | 5.46 | 3.1 |
| R1/pond                           | 0.33  | 7878.79 | 363.64 | 9696.97 | 2060.61 | 75.76 | 43.6 |
| R1/stream                         | 10.478 | 248.14 | 11.45 | 305.40 | 64.90 | 2.39 | 1.4 |
| R2/stream                         | 7.504 | 346.48 | 15.99 | 426.44 | 90.62 | 3.33 | 1.9 |
| R3/stream                         | 16.982 | 153.10 | 7.07  | 188.43 | 40.04 | 1.47 | 0.8 |
| R4/stream                         | 46.07 | 56.44 | 2.60  | 69.46  | 14.76 | 0.54 | 0.3 |
| FOCUS Step 3* post-emergence in maize |          |      |      |       |       |      |      |
| D3/ditch                          | 4.528 | 574.20 | 26.50 | 706.71 | 150.18 | 5.52 | 3.18 |
| D4/pond                           | 0.226 | 11504.42 | 530.97 | 14159.29 | 3008.85 | 110.6 | 63.72 |

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D4/stream  3.954  657.56  30.35  809.31  171.98  **6.32**  3.64
D5/pond  0.24  10833.33  500.00  13333.33  2833.33  104.2  60.00
D5/stream  3.636  715.07  33.00  880.09  187.02  **6.88**  **3.96**
D6/ditch  4.532  573.70  26.48  706.09  150.04  5.52  3.18
R1/pond  0.655  3969.47  183.21  4885.50  1038.17  38.2  21.98
R1/stream  11.503  226.03  10.43  278.19  59.12  2.17  1.25
R2/stream  9.647  269.51  12.44  331.71  70.49  2.59  1.49
R3/stream  25.173  103.29  4.77  127.12  27.01  **0.99**  0.57
R4/stream  28.803  **90.27**  **4.17**  **111.10**  23.61  **0.87**  **0.50**

**Trigger**

* based on a single application in pre-emergence maize/soybeans/sunflowers
+ based on a single application in post-emergence maize
# [Only scenarios where the trigger is not met at FOCUSsw step 1-2 should be included in step 3.]
**[If the Trigger value has been adjusted during the risk assessment, it should always be clear on what basis the risk assessment has been performed, i.e. what the AF value is and for which organism and endpoint it refers.]

TERs shown in **bold** fall below the relevant trigger

**FOCUSsw step 1-3 - TERs for dimethenamid-P — BAS 656 12 H in sugar beets at 1 x 864 g a.s./ha (pre-emergence) and 1 x 720 g a.s./ha (post-emergence), respectively, and FOCUSsw step 3 - TERs for dimethenamid-P — BAS 656 12 H in soybeans and sunflowers at 1 x 864 g/ha**

| Scenario | PEC global max (µg L) | fish acute | fish chronic | Aquatic invertebrates | Aquatic invertebrates prolonged | Algae | Higher plant |
|----------|------------------------|------------|-------------|----------------------|-------------------------------|-------|--------------|
|          | Oncorhynchus mykiss    | Oncorhynchus mykiss | Americanysis bahia | Daphnia magna | Monoraphidium griffithii | Lemma gibba |
|          | LC₅₀ | NOEC | EC₅₀ | NOEC | EC₅₀ | EC₅₀ |
| FOCUS Step 1 Sugar beets | 243.394 | 10.7 | 0.49 | 13.14 | 2.8 | 0.10 | 0.06 |
| FOCUS Step 2’ Sugar beets | | | | | | | |
| North Europe | 29.81 | 87.22 | 4.03 | 107.34 | 22.81 | **0.84** | **0.48** |
| South Europe | 54.37 | **47.82** | **2.21** | **58.85** | 12.51 | **0.46** | **0.26** |
| FOCUS Step 2’ | | | | | | | |
| North Europe | 29.81 | **87.22** | **4.03** | 107.34 | 22.81 | **0.84** | **0.48** |
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| South Europe | 42.09 | 61.77 | 2.85 | 76.02 | 16.15 | 0.59 | 0.34 |
|--------------|-------|-------|-----|-------|-------|------|------|

**FOCUS Step 3** Sugar beets, 864 g/ha, pre-emergence

| Scenario | D3/ditch | D4/pond | D4/stream | R1/pond | R1/stream | R3/stream | Trigger |
|----------|----------|----------|-----------|---------|-----------|-----------|---------|
| FOCUS/ditch | 4.524 | 0.219 | 3.727 | 1.972 | 20.477 | 38.356 | 100 |
| D4/ditch | 574.71 | 11872.15 | 697.61 | 1318.46 | 126.97 | 67.79 | 10 |
| D4/stream | 26.53 | 547.95 | 32.20 | 60.85 | 5.86 | 3.13 | 100 |
| R1/ditch | 707.34 | 14611.87 | 858.60 | 1622.72 | 156.27 | 83.43 | 16 |
| R1/stream | 150.31 | 3105.02 | 182.45 | 344.83 | 33.21 | 17.73 | 5 |
| R3/stream | 5.53 | 114.2 | 6.71 | 12.7 | 1.22 | 0.65 | 0.38 |

**FOCUS Step 3** Sugar beets, 720 g/ha, post-emergence

| Scenario | D3/ditch | D4/pond | D4/stream | R1/pond | R1/stream | R3/stream | Trigger |
|----------|----------|----------|-----------|---------|-----------|-----------|---------|
| FOCUS/ditch | 3.772 | 0.192 | 3.16 | 0.279 | 3.597 | 5.7 | 100 |
| D4/ditch | 689.29 | 13541.67 | 822.78 | 9319.00 | 722.82 | 456.14 | 10 |
| D4/stream | 31.81 | 625.00 | 37.97 | 430.11 | 33.36 | 21.05 | 100 |
| R1/ditch | 848.36 | 16666.67 | 1012.66 | 11469.53 | 889.63 | 561.40 | 16 |
| R1/stream | 180.28 | 3541.67 | 215.19 | 2437.28 | 189.05 | 119.30 | 5 |
| R3/stream | 6.63 | 130.2 | 7.91 | 89.6 | 6.95 | 4.39 | 0.38 |

**FOCUS Step 3** Soybeans, 864 g/ha, pre-emergence

| Scenario | R3/stream | R4/stream | Trigger |
|----------|-----------|-----------|---------|
| FOCUS/ditch | 23.084 | 13.805 | 100 |
| D3/ditch | 112.63 | 188.34 | 10 |
| D3/stream | 5.20 | 8.69 | 100 |
| D4/stream | 138.62 | 231.80 | 100 |
| R1/ditch | 29.46 | 49.26 | 10 |
| R1/stream | 0.108 | 1.81 | 100 |
| R3/stream | 0.62 | 1.10 | 100 |

**FOCUS Step 3** Sunflowers, 864 g/ha, pre-emergence

| Scenario | D5/pond | D5/stream | R1/pond | R1/stream | R3/pond | R3/stream | R4/pond | R4/stream | Trigger |
|----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|
| D5/ditch | 0.215 | 3.745 | 0.279 | 3.597 | 0.355 | 5.7 | 100 |
| D5/stream | 12093.02 | 822.78 | 9319.00 | 722.82 | 7323.94 | 456.14 | 100 |
| D5/stream | 558.14 | 37.97 | 430.11 | 33.36 | 338.03 | 21.05 | 100 |
| D5/stream | 14883.72 | 1012.66 | 11469.53 | 889.63 | 9014.08 | 561.40 | 100 |
| D5/stream | 3162.79 | 215.19 | 2437.28 | 189.05 | 1915.49 | 119.30 | 100 |
| D5/stream | 116.3 | 7.91 | 89.6 | 6.95 | 70.4 | 4.39 | 0.38 |

**FOCUS Step 3** Sunflowers, 864 g/ha, pre-emergence

| Scenario | R3/stream | R4/stream | Trigger |
|----------|-----------|-----------|---------|
| D5/ditch | 23.084 | 13.805 | 100 |
| D5/stream | 112.63 | 188.34 | 10 |
| D5/stream | 5.20 | 8.69 | 100 |
| D5/stream | 138.62 | 231.80 | 100 |
| R1/ditch | 29.46 | 49.26 | 10 |
| R1/stream | 0.108 | 1.81 | 100 |
| R3/stream | 0.62 | 1.10 | 100 |

**Notes:**
- * based on a single pre-emergence application in sugar beet
- + based on a single post-emergence application in sugar beet
- # Only scenarios where the trigger is not met at FOCUS step 1-2 should be included in step 3.
- ** If the Trigger value has been adjusted during the risk assessment, it should always be clear on what basis the risk assessment has been performed, i.e. what the AF value is and for which organism and endpoint it refers.

**TERs shown in bold fall below the relevant trigger.**
FOCUS Step 4 - TER values for dimethenamid-P follow – BAS 656 12 H in maize at 1 x 864 g as/ha in pre-emergence

| FOCUS Scenario / water body | PEC global max (µg/L) | Fish acute | Fish ELS | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic plant |
|-----------------------------|-----------------------|------------|----------|---------------------|------------------------|-------|--------------|
|                             |                       | Oncorhynchus mykiss | Oncorhynchus mykiss | Americamysis bahia | Daphnia magna | Monoraphidium griffithii | Lemma gibba |
|                             |                       | LC₅₀ (µg/L) | NOEC (µg/L) | LC₅₀ (µg/L) | NOEC (µg/L) | E₅₀ (µg/L) | E₅₀ (µg/L) |
| step 4 pre-emergence maize: 5 m drift mitigation | | | | | | | |
| D3/ditch | 1.483 | 1753.20 | 80.92 | 2157.79 | 458.53 | 16.86 | 9.71 |
| D4/pond | 0.187 | 13903.74 | 641.71 | 17112.30 | 3636.36 | 133.69 | 77.01 |
| D5/pond | 1.577 | 1648.70 | 76.09 | 2029.17 | 431.20 | 15.85 | 9.13 |
| D5/stream | 0.19 | 13684.21 | 631.58 | 16842.11 | 3578.95 | 131.58 | 75.79 |
| R1/pond | 1.706 | 1524.03 | 70.34 | 1875.73 | 398.59 | 14.65 | 8.44 |
| R1/stream | 0.134 | 1353.81 | 68.18 | 2084.69 | 443.00 | 16.73 | 9.38 |
| step 4 pre-emergence maize: 10 m drift mitigation | | | | | | | |
| D3/ditch | 0.314 | 1753.20 | 80.92 | 2157.79 | 458.53 | 16.86 | 9.71 |
| D4/pond | 0.137 | 18978.10 | 875.91 | 23357.66 | 4963.50 | 182.48 | 105.11 |
| D5/pond | 0.842 | 3087.89 | 142.52 | 680.48 | 143.20 | 381.62 | 811.46 |
| R1/pond | 0.282 | 3102.63 | 143.20 | 381.48 | 811.46 | 29.83 | 17.18 |
### FOCUS Scenario / water body

| PEC global max (µg/L) | Fish acute | Fish ELS | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic plant |
|-----------------------|------------|----------|---------------------|------------------------|-------|---------------|
| **Oncorhyn-chus mykiss** | **Oncorhynchus mykiss** | **Americamysis bahia** | **Daphnia magna** | **Monoraphidium griffithii** | **Lemna gibba** |
| LC$_{50}$ (µg/L) | NOEC (µg/L) | LC$_{50}$ (µg/L) | NOEC (µg/L) | E$_{50}$ (µg/L) | E$_{50}$ (µg/L) |
| 2600 | 120 | 3200 | 680 | 25 | 14.4 |
| R1/stream | 10.478 | 248.14 | 11.45 | 305.40 | 64.90 | 2.39 | 1.37 |
| R2/stream | 7.504 | 346.48 | 15.99 | 426.44 | 90.62 | 3.33 | 1.92 |
| R3/stream | 16.982 | 153.10 | 7.07 | 188.43 | 40.04 | 1.47 | 0.85 |
| R4/stream | 46.07 | 56.44 | 2.60 | 69.46 | 14.76 | 0.54 | 0.31 |

### step 4 pre-emergence maize: 20 m drift mitigation

| **D3/ditch** | 0.409 | 6356.97 | 293.40 | 7823.96 | 1662.59 | 61.12 | 35.2 |
| **D4/pond** | 0.09 | 28888.89 | 1333.33 | 35555.56 | 7555.56 | 277.78 | 160.0 |
| **D4/stream** | 0.44 | 5909.09 | 272.73 | 7272.73 | 1545.45 | 56.82 | 32.7 |
| **D5/pond** | 0.093 | 27956.99 | 1290.32 | 34408.60 | 7311.83 | 268.82 | 154.8 |
| **D5/stream** | 0.476 | 5462.18 | 252.10 | 6722.69 | 1428.57 | 52.52 | 30.3 |
| **D6/ditch** | 0.46 | 5652.17 | 260.87 | 6956.52 | 1478.26 | 54.35 | 31.3 |
| **R1/pond** | 0.253 | 10276.68 | 474.31 | 12648.22 | 2687.75 | 98.81 | 56.9 |
| **R1/stream** | 10.478 | 248.14 | 11.45 | 305.40 | 64.90 | 2.39 | 1.4 |
| **R2/stream** | 7.504 | 346.48 | 15.99 | 426.44 | 90.62 | 3.33 | 1.9 |
| **R3/stream** | 16.981 | 153.11 | 7.07 | 188.45 | 40.04 | 1.47 | 0.8 |
| **R4/stream** | 46.07 | 56.44 | 2.60 | 69.46 | 14.76 | 0.54 | 0.3 |
| FOCUS Scenario / water body | PEC global max (µg/L) | Fish acute | Fish ELS | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic plant |
|-----------------------------|-----------------------|------------|----------|---------------------|-------------------------|-------|---------------|
|                            |                       | Oncorhynchus mykiss | Oncorhynchus mykiss | Americamysis bahia | Daphnia magna | Monoraphidium griffithii | Lemna gibba |
|                            | LC₅₀ (µg/L) | NOEC (µg/L) | LC₅₀ (µg/L) | NOEC (µg/L) | LC₅₀ (µg/L) | NOEC (µg/L) | LC₅₀ (µg/L) | NOEC (µg/L) |
| step 4 pre-emergence maize: 10 m drift + runoff mitigation |
| D3/ditch                   | 0.786     | 3307.89  | 152.67   | 4071.25   | 865.14     | 31.81   | 18.32         |
| D4/pond                    | 0.137     | 18978.10 | 875.91   | 23357.66  | 4963.50    | 182.48  | 105.11        |
| D4/stream                   | 0.842     | 3087.89  | 142.52   | 3800.48   | 807.60     | 29.69   | 17.10         |
| D5/pond                    | 0.139     | 18705.04 | 863.31   | 23021.58  | 4892.09    | 179.86  | 103.60        |
| D5/stream                   | 0.911     | 2854.01  | 131.72   | 3512.62   | 746.43     | 27.44   | 15.81         |
| D6/ditch                   | 0.838     | 3102.63  | 143.20   | 3818.62   | 811.46     | 29.83   | 17.18         |
| R1/pond                    | 0.164     | 15853.66 | 731.71   | 19512.20  | 4146.34    | 152.44  | 87.80         |
| R1/stream                   | 4.442     | 585.32   | 27.01    | 720.40    | 153.08     | 5.63    | 3.24          |
| R2/stream                   | 3.362     | 773.35   | 35.69    | 951.81    | 202.26     | 7.44    | 4.28          |
| R3/stream                   | 6.946     | 374.32   | 17.28    | 460.70    | 97.90      | 3.60    | 2.07          |
| R4/stream                   | 20.86     | 124.64   | 5.75     | 153.40    | 32.60      | 1.20    | 0.69          |

step 4 pre-emergence maize: 20 m drift + runoff mitigation

| D3/ditch                   | 0.409     | 6356.97  | 293.40   | 7823.96   | 1662.59    | 61.12   | 35.2          |
| D4/pond                    | 0.09      | 28888.89 | 1333.33  | 35555.56  | 7555.56    | 277.78  | 160.0         |
| FOCUS Scenario / water body | PEC global max (µg/L) | Fish acute | Fish ELS | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic plant |
|----------------------------|-----------------------|------------|----------|---------------------|------------------------|-------|--------------|
|                            | Oncorhynchus mykiss   | Oncorhynchus mykiss | Americamysis bahia | Daphnia magna | Monoraphidium griffithii | Lemna gibba |
|                            | LC₅₀ (µg/L) | NOEC (µg/L) | LC₅₀ (µg/L) | NOEC (µg/L) | E₅₀C₅₀ (µg/L) | E₅₀C₅₀ (µg/L) |
| D4/stream                  | 0.44 | 5909.09 | 272.73 | 7272.73 | 1545.45 | 56.82 | 32.7 |
| D5/pond                    | 0.093 | 27956.99 | 1290.32 | 34408.60 | 7311.83 | 268.82 | 154.8 |
| D5/stream                  | 0.476 | 5462.18 | 252.10 | 6722.69 | 1428.57 | 52.52 | 30.3 |
| D6/ditch                   | 0.46 | 5652.17 | 260.87 | 6956.52 | 1478.26 | 54.35 | 31.3 |
| R1/pond                    | 0.095 | 27368.42 | 1263.16 | 33684.21 | 7157.89 | 263.16 | 151.6 |
| R1/stream                  | 2.266 | 1147.40 | 52.96 | 1412.18 | 300.09 | 11.03 | **6.4** |
| R2/stream                  | 1.75 | 1485.71 | 68.57 | 1828.57 | 388.57 | 14.29 | **8.2** |
| R3/stream                  | 3.498 | 743.28 | 34.31 | 914.81 | 194.40 | **7.15** | **4.1** |
| R4/stream                  | 10.909 | 238.34 | 11.00 | 293.34 | 62.33 | **2.29** | **1.3** |
| TER criterion              | 100 | 10 | 100 | 10 | 10 | **10** | **10** |

TERs shown in bold fall below the relevant trigger.
FOCUS Step 4 - TER values for dimethenamid-P – BAS 656 12 H in maize at 1 x 864 g as/ha in post-emergence

| FOCUS Scenario / water body | PEC global max (µg/L) | Fish acute | Fish ELS | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic plant |
|-----------------------------|-----------------------|------------|----------|---------------------|-------------------------|-------|--------------|
|                             |                       | *Onocorhynchus mykiss* | *Onocorhynchus mykiss* | *Americanysis bahia* | *Daphnia magna* | *Monoraphidium griffithii* | *Lemna gibba* |
|                             |                       | LC₅₀ (µg/L) | NOEC (µg/L) | LC₅₀ (µg/L) | NOEC (µg/L) | E₅₀C₅₀ (µg/L) | E₅₀C₅₀ (µg/L) |
| step 4 post-emergence maize: 5 m drift mitigation | | | | | | | |
| D3/ditch                    | 1.484                 | 1752.02    | 80.86    | 2156.33            | 458.22                 | 16.85 | 9.7          |
| D4/pond                     | 0.198                 | 13131.31   | 606.06   | 16161.62           | 3434.34                | 126.26| 72.7         |
| D4/stream                   | 1.683                 | 1544.86    | 71.30    | 1901.37            | 404.04                 | 14.85 | 8.6          |
| D5/pond                     | 0.212                 | 12264.15   | 566.04   | 15094.34           | 3207.55                | 117.92| 67.9         |
| D5/stream                   | 1.542                 | 1686.12    | 77.82    | 2075.23            | 440.99                 | 16.21 | 9.3          |
| D6/ditch                    | 1.506                 | 1726.43    | 79.68    | 2124.83            | 451.53                 | 16.60 | 9.6          |
| R1/pond                     | 0.632                 | 4113.92    | 189.87   | 5063.29            | 1075.95                | 39.56 | 22.8         |
| R1/stream                   | 11.503                | 226.03     | 10.43    | 278.19             | 59.12                  | 2.17  | 1.3          |
| R2/stream                   | 9.647                 | 269.51     | 12.44    | 331.71             | 70.49                  | 2.59  | 1.5          |
| R3/stream                   | 25.173                | 103.29     | 4.77     | 127.12             | 27.01                  | 0.99  | 0.6          |
| R4/stream                   | 28.803                | **90.27**  | **4.17** | 111.10             | 23.61                  | **0.87** | **0.5** |

step 4 post-emergence maize: 10 m drift mitigation

|                             |                       |           |           |                   |                       |   |     |
| D3/ditch                    | 0.792                 | 3282.83   | 151.52   | 4040.40           | 858.59                 | 31.57 | 18.2 |
| D4/pond                     | 0.145                 | 17931.03  | 827.59   | 22068.97          | 4689.66                | 172.41| 99.3 |
| FOCUS Scenario / water body | PEC global max (µg/L) | Fish acute | Fish ELS | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic plant |
|-----------------------------|----------------------|------------|---------|---------------------|------------------------|-------|----------------|
|                             | Oncorhynchus mykiss  | Oncorhynchus mykiss | Americamysis bahia | Daphnia magna | Monoraphidium griffithii | Lemma gibba |
|                             | LC₅₀ (µg/L) | NOEC (µg/L) | LC₅₀ (µg/L) | NOEC (µg/L) | EC₅₀ (µg/L) | EC₅₀ (µg/L) |
| D4/stream                   | 0.902      | 2882.48    | 133.04   | 3547.67   | 753.88     | 27.72  | 16.0          |
| D5/pond                    | 0.159      | 16352.20   | 754.72   | 20125.79  | 4276.73    | 157.23 | 90.6          |
| D5/stream                   | 0.825      | 3151.52    | 145.45   | 3878.79   | 824.24     | 30.30  | 17.5          |
| D6/ditch                   | 0.813      | 3198.03    | 147.60   | 3936.04   | 836.41     | 30.75  | 17.7          |
| R1/pond                    | 0.589      | 4414.26    | 203.74   | 5432.94   | 1154.50    | 42.44  | 24.4          |
| R1/stream                   | 11.503     | 226.03     | 10.43    | 278.19    | 59.12      | 2.17   | 1.3           |
| R2/stream                   | 9.647      | 269.51     | 12.44    | 331.71    | 70.49      | 2.59   | 1.5           |
| R3/stream                   | 25.173     | 103.29     | 4.77     | 127.12    | 27.01      | 0.99   | 0.6           |
| R4/stream                   | 28.803     | 90.27      | 4.17     | 111.10    | 23.61      | 0.87   | 0.5           |
| **step 4 post-emergence maize: 20 m drift mitigation** | | | | |
| D3/ditch                   | 0.416      | 6250.00    | 288.46   | 7692.31   | 1634.62    | 60.10  | 34.6          |
| D4/pond                    | 0.095      | 27368.42   | 1263.16  | 33684.21  | 7157.89    | 263.16 | 151.6         |
| D4/stream                   | 0.471      | 5520.17    | 254.78   | 6794.06   | 1443.74    | 53.08  | 30.6          |
| D5/pond                    | 0.109      | 23853.21   | 1100.92  | 29357.80  | 6238.53    | 229.36 | 132.1         |
| D5/stream                   | 0.434      | 5990.78    | 276.50   | 7373.27   | 1566.82    | 57.60  | 33.2          |
### FOCUS Scenario / water body

|                       | PEC global max (µg/L) | Fish acute | Fish ELS | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic plant |
|-----------------------|-----------------------|------------|----------|---------------------|-------------------------|-------|---------------|
|                       |                       | Oncorhynchus mykiss | Oncorhynchus mykiss | Americanysis bahia | Daphnia magna | Monoraphidium griffithii | Lemna gibba |
|                       | LC₅₀ (µg/L) | NOEC (µg/L) | LC₅₀ (µg/L) | NOEC (µg/L) | EᵣC₅₀ (µg/L) | EᵣC₅₀ (µg/L) |       |       |
| D6/ditch              | 0.437                 | 2600       | 120      | 3200               | 680                     | 25    | 14.4          |
| R1/pond               | 0.55                  | 5949.66    | 274.60   | 7322.65            | 1556.06                 | 57.21 | 33.0          |
| R1/stream              | 11.503                | 218.18     | 5818.18  | 1236.36            | 45.45                   | 26.2  |               |
| R2/stream              | 9.647                 | 278.19     | 12.44    | 331.71             | 70.49                   | 2.59  | 1.5           |
| R3/stream              | 25.173                | 103.29     | 4.77     | 127.12             | 27.01                   | 0.99  | 0.6           |
| R4/stream              | 28.803                | 90.27      | 4.17     | 111.10             | 23.61                   | 0.87  | 0.5           |

#### step 4 post-emergence maize: 10 m drift + runoff mitigation

|                       |                       |           |           |                   |                         |       |               |
| D3/ditch              | 0.792                 | 3282.83   | 151.52   | 4040.40           | 858.59                  | 31.57 | 18.2          |
| D4/pond               | 0.145                 | 17931.03  | 827.59   | 22068.97          | 4689.66                 | 172.41| 99.3          |
### Table: Pesticide Risk Assessment

| FOCUS Scenario / water body | PEC global max (µg/L) | Fish acute | Fish ELS | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic plant |
|-----------------------------|-----------------------|------------|----------|---------------------|------------------------|-------|---------------|
|                             |                       | *Oncorhynchus mykiss* | *Oncorhynchus mykiss* | *Americamysis bahia* | *Daphnia magna* | *Monoraphidium griffithii* | *Lemna gibba* |
|                             |                       | LC₅₀ (µg/L) | NOEC (µg/L) | LC₅₀ (µg/L) | NOEC (µg/L) | E₅₀ (µg/L) | E₅₀ (µg/L) |
| D4/stream                   | 0.902                 | 2600       | 120       | 3200               | 680            | 25            | 14.4         |
| D5/pond                     | 0.159                 | 2882.48    | 133.04    | 3547.67            | 753.88         | 27.72         | 16.0         |
| D5/stream                   | 0.825                 | 16352.20   | 754.72    | 20125.79           | 4276.73        | 157.23        | 90.6         |
| D6/ditch                    | 0.813                 | 3151.52    | 145.45    | 3878.79            | 824.24         | 30.30         | 17.5         |
| R1/pond                     | 0.305                 | 3198.03    | 147.60    | 3936.04            | 836.41         | 30.75         | 17.7         |
| R1/stream                    | 0.508                 | 8524.59    | 393.44    | 10491.80           | 2229.51        | 81.97         | 47.2         |
| R2/stream                    | 4.247                 | 499.23     | 23.04     | 614.44             | 130.57         | 4.80          | 2.8          |
| R3/stream                    | 11.382                | 612.20     | 28.26     | 753.47             | 160.11         | 5.89          | 3.4          |
| R4/stream                    | 13.093                | 198.58     | 9.17      | 244.41             | 51.94          | 1.91          | 1.1          |

### Step 4: Post-emergence maize: 20 m drift + runoff mitigation

| D3/ditch                    | 0.416                 | 6250.00    | 288.46    | 7692.31            | 1634.62        | 60.10         | 34.6         |
| D4/pond                     | 0.095                 | 27368.42   | 1263.16   | 33684.21           | 7157.89        | 263.16        | 151.6        |
| D4/stream                    | 0.471                 | 5520.17    | 254.78    | 6794.06            | 1443.74        | 53.08         | 30.6         |
| D5/pond                     | 0.109                 | 23853.21   | 1100.92   | 29357.80           | 6238.53        | 229.36        | 132.1        |
| D5/stream                    | 0.434                 | 5990.78    | 276.50    | 7373.27            | 1566.82        | 57.60         | 33.2         |
### Focus Step 4 - TER values for dimethenamid-P – BAS 656 12 H in soybeans at 1 x 864 g as/ha in pre-emergence

| FOCUS Scenario / water body | PEC global max (µg/L) | Fish acute | Fish ELS | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic plant |
|-----------------------------|-----------------------|------------|----------|---------------------|-------------------------|-------|---------------|
|                             | Oncorhynchus mykiss   | Oncorhynchus mykiss | Americamysis bahia | Daphnia magna | Monoraphidium griffithii | Lemna gibba |
|                             | LC50 (µg/L)           | NOEC (µg/L) | LC50 (µg/L) | NOEC (µg/L) | LC50 (µg/L) | NOEC (µg/L) |
| D6/ditch                    | 0.437                 | 5949.66    | 274.60    | 7322.65         | 1556.06              | 57.21 | 33.0 |
| R1/pond                     | 0.17                  | 15294.12   | 705.88    | 18823.53        | 4000.00             | 147.06 | 84.7 |
| R1/stream                    | 2.723                 | 954.83     | 44.07     | 1175.17         | 249.72              | 9.18  | 5.3 |
| R2/stream                    | 2.2                   | 1181.82    | 54.55     | 1454.55         | 309.09              | 11.36 | 6.5 |
| R3/stream                    | 5.948                 | 437.12     | 20.17     | 538.00          | 114.32              | 4.20  | 2.4 |
| R4/stream                    | 6.863                 | 378.84     | 17.49     | 466.27          | 99.08               | 3.64  | 2.1 |
| TER criterion               | 100                   | 10         | 100       | 10               | 10                  | 10    | 10 |

TERs shown in **bold** fall below the relevant trigger.
### Step 4 Pre-Emergence Soybeans: 5 m Drift Mitigation

|        | R3/stream | R4/stream |
|--------|-----------|-----------|
|        | 23.084    | 112.63    | 5.20  | 138.62  | 29.46 | 1.08  | 0.62 |
|        | 13.805    | 188.34    | 8.69  | 231.80  | 49.26 | 1.81  | 1.04 |

### Step 4 Pre-Emergence Soybeans: 10 m Drift Mitigation

|        | R3/stream | R4/stream |
|--------|-----------|-----------|
|        | 23.084    | 112.63    | 5.20  | 138.62  | 29.46 | 1.08  | 0.62 |
|        | 13.805    | 188.34    | 8.69  | 231.80  | 49.26 | 1.81  | 1.04 |

### Step 4 Pre-Emergence Soybeans: 20 m Drift Mitigation

|        | R3/stream | R4/stream |
|--------|-----------|-----------|
|        | 23.084    | 112.63    | 5.20  | 138.62  | 29.46 | 1.08  | 0.62 |
|        | 13.805    | 188.34    | 8.69  | 231.80  | 49.26 | 1.81  | 1.04 |

### Step 4 Pre-Emergence Soybeans: 10 m Drift + Runoff Mitigation

|        | R3/stream | R4/stream |
|--------|-----------|-----------|
|        | 10.548    | 246.49    | 11.38 | 303.38  | 64.47 | 2.37  | 1.37 |
|        | 6.285     | 413.68    | 19.09 | 509.15  | 108.19 | 3.98  | 2.29 |

### Step 4 Pre-Emergence Soybeans: 20 m Drift + Runoff Mitigation

|        | R3/stream | R4/stream |
|--------|-----------|-----------|
|        | 5.539     | 469.40    | 21.66 | 577.72  | 122.77 | 4.51  | 2.60 |
|        | 3.295     | 789.07    | 36.42 | 971.17  | 206.37 | 7.59  | 4.37 |
| TER criterion | 100  | 10  | 100  | 10  | 10  | 10 | 10 |
FOCUS Step 4 - TER values for dimethenamid-P – BAS 656 12 H in sugar beet at 1 x 864 g a.s./ha in pre-emergence

| FOCUS Scenario / water body | PEC global max (µg/L) | Fish acute | Fish ELS | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic plant |
|-----------------------------|-----------------------|------------|----------|---------------------|------------------------|-------|---------------|
|                             |                       | Oncorhynchus mykiss | Oncorhynchus mykiss | Americamysis bahia | Daphnia magna | Monoraphidium griffithii | Lemma gibba |
|                             | padding                | LC₉₀ (µg/L) | NOEC (µg/L) | LC₉₀ (µg/L) | NOEC (µg/L) | E₅₀ (µg/L) | E₅₀ (µg/L) |
|                             |                       | 2600       | 120       | 3200             | 680         | 25     | 14.4         |

step 4 pre-emergence sugar beet: 5 m Drift mitigation

|                  | D3/ditch | D4/pond | D4/stream | R1/pond | R1/stream | R3/stream |
|------------------|----------|----------|-----------|---------|-----------|-----------|
| PEC global max   | 1.483    | 0.189    | 1.578     | 1.948   | 20.477    | 38.356    |
| (µg/L)           | 1753.20  | 13756.61 | 1647.66   | 1334.70 | 126.97    | **67.79** |
| Fish acute       | 80.92    | 634.92   | 76.05     | 61.60   | 5.86      | **3.13**  |
| Fish ELS         | 2157.79  | 16931.22 | 2027.88   | 1642.71 | 156.27    | **83.43** |
| Invertebrates acute | 458.53 | 3597.88  | 430.93    | 349.08  | 33.21     | **17.73** |
| Invertebrates prolonged | 16.86 | 132.28   | 15.84     | 12.83   | 1.22      | **0.65**  |
| Algae            | 9.71     | 76.19    | 9.13      | 7.39    | 0.70      | **0.38**  |

step 4 pre-emergence sugar beet: 10 m Drift mitigation

|                  | D3/ditch | D4/pond | D4/stream | R1/pond | R1/stream | R3/stream |
|------------------|----------|----------|-----------|---------|-----------|-----------|
| PEC global max   | 0.787    | 0.144    | 0.847     | 1.912   | 20.477    | 38.356    |
| (µg/L)           | 3303.68  | 18055.56 | 3069.66   | 1359.83 | 126.97    | **67.79** |
| Fish acute       | 152.48   | 833.33   | 141.68    | 62.76   | 5.86      | **3.13**  |
| Fish ELS         | 4066.07  | 22222.22 | 3778.04   | 1673.64 | 156.27    | **83.43** |
| Invertebrates acute | 864.04 | 4722.22  | 802.83    | 355.65  | 33.21     | **17.73** |
| Invertebrates prolonged | 31.77 | 173.61   | 29.52     | 13.08   | **1.22**  | **0.65**  |
| Algae            | 18.30    | 100.00   | 17.00     | **7.53** | **0.70**  | **0.38**  |
### Peer review of the pesticide risk assessment of the active substance dimethenamid-P

Table 1: Drift and runoff mitigation factors for different scenarios.

| Scenario/Pathway | Distance | Drift Mitigation | Runoff Mitigation |
|------------------|----------|------------------|-------------------|
| **step 4** pre-emergence sugar beet: 20 m Drift mitigation | | | |
| D3/ditch         | 0.409    | 6356.97          | 293.40            | 7823.96          | 1662.59           | 61.12          | 35.21          |
| D4/pond          | 0.0978   | 26584.87         | 1226.99           | 32719.84         | 6952.97           | 255.62         | 147.24         |
| D4/stream        | 0.445    | 5842.70          | 269.66            | 7191.01          | 1528.09           | 56.18          | 32.36          |
| R1/pond          | 1.875    | 1386.67          | 64.00             | 1706.67          | 362.67            | 13.33          | 7.68           |
| R1/stream        | 20.477   | 126.97           | 5.86              | 156.27           | 33.21             | 1.22           | 0.70           |
| R3/stream        | 38.356   | 67.79            | 3.13              | 83.43            | 17.73             | 0.65           | 0.38           |

**step 4** pre-emergence sugar beet: 10 m Drift + runoff mitigation

| Scenario/Pathway | Distance | Drift Mitigation | Runoff Mitigation |
|------------------|----------|------------------|-------------------|
| D3/ditch         | 0.787    | 3303.68          | 152.48            | 4066.07          | 864.04            | 31.77          | 18.30          |
| D4/pond          | 0.144    | 18055.56         | 833.33            | 22222.22         | 4722.22           | 173.61         | 100.00         |
| D4/stream        | 0.847    | 3069.66          | 141.68            | 3778.04          | 802.83            | 29.52          | 17.00          |
| R1/pond          | 0.836    | 3110.05          | 143.54            | 3827.75          | 813.40            | 29.90          | 17.22          |
| R1/stream        | 9.340    | 278.37           | 12.85             | 342.61           | 72.81             | 2.68           | 1.54           |
| R3/stream        | 17.504   | 148.54           | 6.86              | 182.82           | 38.85             | 1.43           | 0.82           |

**step 4** pre-emergence sugar beet: 20 m Drift + runoff mitigation

| Scenario/Pathway | Distance | Drift Mitigation | Runoff Mitigation |
|------------------|----------|------------------|-------------------|
| D3/ditch         | 0.409    | 6356.97          | 293.40            | 7823.96          | 1662.59           | 61.12          | 35.21          |
| D4/pond          | 0.0978   | 26584.87         | 1226.99           | 32719.84         | 6952.97           | 255.62         | 147.24         |
### Focus Step 4 - TER values for dimethenamid-P – BAS 656 12 H in sugar beet at 1 x 720 g as/ha in post-emergence

| FOCUS Scenario / water body | PEC global max (µg/L) | Fish acute | Fish ELS | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic plant |
|-----------------------------|-----------------------|------------|----------|---------------------|------------------------|-------|---------------|
|                             | Oncorhynchus mykiss   | Oncorhynchus mykiss | Americamysis bahia | Daphnia magna | Monoraphidium griffithii | Lemna gibba |
|                             | LC₅₀ (µg/L)           | NOEC (µg/L) | LC₅₀ (µg/L) | NOEC (µg/L) | E₅₀C₅₀ (µg/L) | E₅₀C₅₀ (µg/L) |
|                             | 2600                  | 120        | 3200      | 680               | 25                     | 14.4  |

**step 4 post-emergence sugar beet: 5 m drift mitigation**

| FOCUS Scenario / water body | PEC global max (µg/L) | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic plant |
|-----------------------------|-----------------------|---------------------|------------------------|-------|---------------|
|                             |                       |                     |                        |       |               |
|                             | D3/ditch              | 1.237               | 2101.86                | 97.01 | 2586.90       | 549.72 | 20.21 | 11.64 |
|                             | D4/pond               | 0.169               | 15384.62               | 710.06 | 18934.91     | 4023.67 | 147.93 | 85.21 |
|                             | D4/stream             | 1.346               | 1931.65                | 89.15 | 2377.41       | 505.20 | 18.57 | 10.70 |
|                             | R1/pond               | 0.265               | 9811.32                | 452.83 | 12075.47     | 2566.04 | 94.34 | 54.34 |
|                             | R1/stream             | 3.597               | 722.82                 | 33.36 | 889.63        | 189.05 | **6.95** | **4.00** |
|                             | R3/stream             | 5.7                 | 456.14                 | 21.05 | 561.40        | 119.30 | **4.39** | **2.53** |
| FOCUS Scenario / water body | PEC global max (µg/L) | Fish acute | Fish ELS | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic plant |
|-----------------------------|-----------------------|------------|----------|---------------------|-------------------------|-------|-------------|
|                             |                       | Oncorhyn-chus mykiss | Oncorhynchus mykiss | Americamysis bahia | Daphnia magna | Monoraphidium griffithii | Lemna gibba |
|                             | LC₅₀ (µg/L) | NOEC (µg/L) | LC₅₀ (µg/L) | NOEC (µg/L) | EC₅₀ (µg/L) | EC₅₀ (µg/L) |
|                             | 2600 | 120 | 3200 | 680 | 25 | 14.4 |

**step 4 post-emergence sugar beet: 10 m drift mitigation**

| D3/ditch | 0.657 | 3957.38 | 182.65 | 4870.62 | 1035.01 | 38.05 | 21.9 |
| D4/pond  | 0.125 | 20800.00 | 960.00 | 25600.00 | 5440.00 | 200.00 | 115.2 |
| D4/stream | 0.723 | 3596.13 | 165.98 | 4426.00 | 940.53 | 34.58 | 19.9 |
| R1/pond  | 0.237 | 10970.46 | 506.33 | 13502.11 | 2869.20 | 105.49 | 60.8 |
| R1/stream | 3.597 | 722.82 | 33.36 | 889.63 | 189.05 | **6.95** | **4.0** |
| R3/stream | 5.7  | 456.14 | 21.05 | 561.40 | 119.30 | **4.39** | **2.5** |

**step 4 post-emergence sugar beet: 20 m drift mitigation**

| D3/ditch | 0.345 | 7536.23 | 347.83 | 9275.36 | 1971.01 | 72.46 | 41.7 |
| D4/pond  | 0.084 | 30952.38 | 1428.57 | 38095.24 | 8095.24 | 297.62 | 171.4 |
| D4/stream | 0.38  | 6842.11 | 315.79 | 8421.05 | 1789.47 | 65.79 | 37.9 |
| R1/pond  | 0.211 | 12322.27 | 568.72 | 15165.88 | 3222.75 | 118.48 | 68.2 |
| R1/stream | 3.597 | 722.82 | 33.36 | 889.63 | 189.05 | **6.95** | **4.0** |
| R3/stream | 5.7  | 456.14 | 21.05 | 561.40 | 119.30 | **4.39** | **2.5** |
| FOCUS Scenario / water body | PEC global max (µg/L) | Fish acute | Fish ELS | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic plant |
|---------------------------|----------------------|------------|----------|---------------------|------------------------|-------|---------------|
|                           | Oncorhynchus mykiss  | Oncorhynchus mykiss | Americamysis bahia | Daphnia magna | Monoraphidium griffithii | Lemna gibba |
|                           | LC₅₀ (µg/L)          | NOEC (µg/L) | LC₅₀ (µg/L) | NOEC (µg/L) | E₅₀ (µg/L) | E₅₀ (µg/L) |
|                           | 2600                 | 120        | 3200      | 680               | 25         | 14.4        |

**step 4 post-emergence sugar beet: 10 m drift + runoff mitigation**

|              | D3/ditch | D4/pond | D4/stream | R1/pond | R1/stream | R3/stream |
|--------------|----------|---------|-----------|---------|-----------|----------|
|              | 0.657    | 0.125   | 0.723     | 0.14    | 1.631     | 2.603    |

|              | 3957.38  | 20800.00| 3596.13   | 18571.43| 1594.11   | 998.85   |
|--------------|----------|---------|-----------|---------|-----------|----------|
|              | 182.65   | 960.00  | 165.98    | 857.14  | 73.57     | 46.10    |
|              | 4870.62  | 25600.00| 4426.00   | 22857.14| 1961.99   | 1229.35  |
|              | 1035.01  | 5440.00 | 940.53    | 4857.14 | 416.92    | 261.24   |
|              | 38.05    | 200.00  | 34.58     | 178.57  | 15.33     | 9.60     |
|              | 41.7     | 171.4   | 37.9      | 177.8   | 16.9      | 10.5     |
### FOCUS Scenario / water body

| FOCUS Scenario / water body | PEC global max (µg/L) | Fish acute  | Fish ELS  | Invertebrates acute | Invertebrates prolonged | Algae  | Aquatic plant |
|-----------------------------|------------------------|------------|-----------|---------------------|------------------------|--------|---------------|
|                             |                        | Oncorhyn-chus mykiss | Oncorhynchus mykiss | Americamysis bahia | Daphnia magna | Monoraphidium griffithii | Lemma gibba |
|                             |                        | LC₅₀ (µg/L) | NOEC (µg/L) | LC₅₀ (µg/L) | NOEC (µg/L) | E₅₀C₅₀ (µg/L) | E₅₀C₅₀ (µg/L) |
|                             |                        | 2600       | 120        | 3200       | 680        | 25           | 14.4          |

#### step 4 post-emergence sugar beet: 20 m drift + runoff mitigation

| Step | Type | PEC global max (µg/L) | Fish acute  | Fish ELS  | Invertebrates acute | Invertebrates prolonged | Algae  | Aquatic plant |
|------|------|------------------------|------------|-----------|---------------------|------------------------|--------|---------------|
| D3/ditch | 0.345 | 7536.23 | 347.83 | 9275.36 | 1971.01 | 72.46 | 41.7 |
| D4/pond | 0.084 | 30952.38 | 1428.57 | 38095.24 | 8095.24 | 297.62 | 171.4 |
| D4/stream | 0.38  | 6842.11 | 315.79 | 8421.05 | 1789.47 | 65.79 | 37.9 |
| R1/pond | 0.081 | 32098.77 | 1481.48 | 39506.17 | 8395.06 | 308.64 | 177.8 |
| R1/stream | 0.854 | 3044.50 | 140.52 | 3747.07 | 796.25 | 29.27 | 16.9 |
| R3/stream | 1.366 | 1903.37 | 87.85 | 2342.61 | 497.80 | 18.30 | 10.5 |
| TER criterion | | 100 | 10 | 100 | 10 | 10 | 10 |
Focus Step 4 - TER values for dimethenamid-P – BAS 656 12 H in sunflower [1 x 864 g as/ha] pre-emergence

| FOCUS Scenario / water body | PEC global max (µg/L) | Fish acute | Fish ELS | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic plant |
|-----------------------------|-----------------------|------------|----------|--------------------|------------------------|-------|--------------|
|                             | *Oncorhynchus mykiss* | *Oncorhynchus mykiss* | *Americanmys bahia* | *Daphnia magna* | *Monoraphidium griffithii* | *Lemna gibba* |
|                             | LC₅₀ (µg/L)           | NOEC (µg/L) | LC₅₀ (µg/L) | NOEC (µg/L) | EC₅₀ | ErC₅₀ (µg/L) |
|                             | 2600                  | 120        | 3200      | 680               | 25       | 14.4        |

**Step 4 pre-emergence sunflower: 5 m drift mitigation**

| Scenario / water body | D5/pond | D5/stream | R1/pond | R1/stream | R3/stream | R4/stream |
|-----------------------|---------|-----------|---------|-----------|-----------|-----------|
|                       | 0.19    | 1.58      | 0.34    | 9.41      | 43.35     | 37.89     |
|                       | 13684.21| 1641.41   | 7669.62 | 276.39    | 59.97     | 68.61     |
|                       | 631.58  | 75.76     | 353.98  | 12.76     | 2.77      | 3.17      |
|                       | 16842.11| 2020.20   | 9439.53 | 340.17    | 73.81     | 84.44     |
|                       | 3578.95 | 429.29    | 2005.90 | 72.29     | 15.68     | 17.94     |
|                       | 131.58  | 15.78     | 73.75   | 2.66      | 0.58      | 0.66      |
|                       | 75.79   | 9.09      | 42.48   | 1.53      | 0.33      | 0.38      |

**Step 4 pre-emergence sunflower: 10 m drift mitigation**

| Scenario / water body | D5/pond | D5/stream | R1/pond | R1/stream | R3/stream | R4/stream |
|-----------------------|---------|-----------|---------|-----------|-----------|-----------|
|                       | 0.14    | 0.84      | 0.30    | 9.41      | 43.35     | 37.89     |
|                       | 18571.43| 3076.92   | 8441.56 | 276.39    | 59.97     | 68.61     |
|                       | 857.14  | 142.01    | 389.61  | 12.76     | 2.77      | 3.17      |
|                       | 22857.14| 3786.98   | 10389.61| 340.17    | 73.81     | 84.44     |
|                       | 4857.14 | 804.73    | 2207.79 | 72.29     | 15.68     | 17.94     |
|                       | 178.57  | 29.59     | 81.17   | 2.66      | 0.58      | 0.66      |
|                       | 102.86  | 17.04     | 46.75   | 1.53      | 0.33      | 0.38      |
### Table: FOCUS Scenario / water body PEC global max (µg/L)

| Scenario / water body | Fish acute | Fish ELS | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic plant |
|-----------------------|------------|----------|---------------------|-------------------------|-------|---------------|
| **Step 4 pre-emergence sunflower: 20 m drift mitigation** |
| D5/pond               | 0.094      | 27659.57 | 1276.60             | 34042.55                | 7234.04| 265.96        | 153.19 |
| D5/stream             | 0.441      | 5895.69  | 272.11              | 7256.24                 | 1541.95| 56.69         | 32.65  |
| R1/pond               | 0.279      | 9319.00  | 430.11              | 11469.53                | 2437.28| 89.61         | 51.61  |
| R1/stream             | 9.407      | 276.39   | 12.76               | 340.17                  | 72.29  | 2.66          | 1.53   |
| R3/stream             | 43.354     | 59.97    | 2.77                | 73.81                   | 15.68  | 0.58          | 0.33   |
| R4/stream             | 37.897     | 68.61    | 3.17                | 84.44                   | 17.94  | 0.66          | 0.38   |
| **Step 4 pre-emergence sunflower: 10 m drift + runoff mitigation** |
| D5/pond               | 0.14       | 18571.43 | 857.14              | 22857.14                | 4857.14| 178.57        | 102.86 |
| D5/stream             | 0.845      | 3076.92  | 142.01              | 3786.98                 | 804.73 | 29.59         | 17.04  |
| R1/pond               | 0.174      | 14942.53 | 689.66              | 18390.80                | 3908.05| 143.68        | 82.76  |
| R1/stream             | 3.958      | 656.90   | 30.32               | 808.49                  | 171.80 | 6.32          | 3.64   |
| R3/stream             | 19.801     | 131.31   | 6.06                | 161.61                  | 34.34  | 1.26          | 0.73   |
| R4/stream             | 16.627     | 156.37   | 7.22                | 192.46                  | 40.90  | 1.50          | 0.87   |
# Peer review of the pesticide risk assessment of the active substance dimethenamid-P

## FOCUS Scenario / water body

| Scenario / water body | PEC global max (µg/L) | Fish acute | Fish ELS | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic plant |
|-----------------------|-----------------------|------------|----------|---------------------|-------------------------|-------|---------------|
|                       |                       | *Oncorhynchus mykiss* | *Oncorhynchus mykiss* | *Americamysis bahia* | *Daphnia magna* | *Monoraphidium griffithii* | *Lemna gibba* |
|                       |                       | LC₅₀ (µg/L) | NOEC (µg/L) | LC₅₀ (µg/L) | NOEC (µg/L) | EC₅₀ E₉₅₀ (µg/L) | E₉₅₀ (µg/L) |
|                       |                       | 2600       | 120       | 3200       | 680       | 25          | 14.4       |

## Step 4 pre-emergence sunflower: 20 m drift + runoff mitigation

| Scenario / water body | PEC global max (µg/L) | Fish acute | Fish ELS | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic plant |
|-----------------------|-----------------------|------------|----------|---------------------|-------------------------|-------|---------------|
|                       |                       | *Oncorhynchus mykiss* | *Oncorhynchus mykiss* | *Americamysis bahia* | *Daphnia magna* | *Monoraphidium griffithii* | *Lemna gibba* |
|                       |                       | LC₅₀ (µg/L) | NOEC (µg/L) | LC₅₀ (µg/L) | NOEC (µg/L) | EC₅₀ E₉₅₀ (µg/L) | E₉₅₀ (µg/L) |
|                       |                       | 2600       | 120       | 3200       | 680       | 25          | 14.4       |

| D5/pond               | 0.094                 | 27659.57   | 1276.60   | 34042.55  | 7234.04   | 265.96      | 153.19     |
| D5/stream              | 0.441                 | 5895.69    | 272.11    | 7256.24   | 1541.95   | 56.69       | 32.65      |
| R1/pond               | 0.1                   | 26000.00   | 1200.00   | 32000.00  | 6800.00   | 250.00      | 144.00     |
| R1/stream              | 2.014                 | 1290.96    | 59.58     | 1588.88   | 337.64    | 12.41       | 7.15       |
| R3/stream              | 10.394                | 250.14     | 11.55     | 307.87    | 65.42     | 2.41        | 1.39       |
| R4/stream              | 8.594                 | 302.54     | 13.96     | 372.35    | 79.12     | 2.91        | 1.68       |

| TER criterion         |                       | 100        | 10        | 100       | 10        | 10          | 10         |
### FOCUS<sub>xw</sub> step 4 - TERs dimethenamid-P – BAS 656 12 H in maize at 1 x 864 g a.s./ha in pre-emergence and post-emergence

| FOCUS Scenarios | Primary producers SSD-RAC [µg a.s./L] | FOCUS Step 4 – maize (pre-emergence) | FOCUS Step 4 – maize (post-emergence) |
|-----------------|----------------------------------------|--------------------------------------|--------------------------------------|
|                 |                                        | PEC<sub>xw, max</sub> [µg/L] | TER (RAC/PEC) | PEC<sub>xw, max</sub> [µg/L] | TER (RAC/PEC) |
| 5 m Drift mitigation | D3/ditch | 4.57 | 1.483 | 3.08 | 1.484 | 3.08 |
|                  | D4/pond | 0.347 | 0.187 | 24.44 | 0.198 | 23.08 |
|                  | D4/stream | 1.577 | 2.90 | 1.683 | 2.72 |
|                  | D5/pond | 0.19 | 24.05 | 0.212 | 21.56 |
|                  | D5/stream | 1.706 | 2.68 | 1.542 | 2.96 |
|                  | D6/ditch | 0.535 | 8.54 | 1.506 | 3.03 |
|                  | R1/pond | 0.314 | 14.55 | 0.632 | 7.23 |
|                  | R1/stream | 10.478 | 0.44 | 11.503 | 0.40 |
|                  | R2/stream | 7.504 | 0.61 | 9.647 | 0.47 |
|                  | R3/stream | 16.982 | 0.27 | 25.173 | 0.18 |
|                  | R4/stream | 46.07 | 0.10 | 28.803 | 0.16 |
| 10 m Drift mitigation | D3/ditch | 4.57 | 0.786 | 5.81 | 0.792 | 5.77 |
|                  | D4/pond | 0.137 | 33.36 | 0.145 | 31.52 |
|                  | D4/stream | 0.842 | 5.43 | 0.902 | 5.07 |
|                  | D5/pond | 0.139 | 32.88 | 0.159 | 28.74 |
|                  | D5/stream | 0.911 | 5.02 | 0.825 | 5.54 |
|                  | D6/ditch | 0.838 | 5.45 | 0.813 | 5.62 |
|                  | R1/pond | 0.282 | 16.21 | 0.589 | 7.76 |
|                  | R1/stream | 10.478 | 0.44 | 11.503 | 0.40 |
|                  | R2/stream | 7.504 | 0.61 | 9.647 | 0.47 |
|                  | R3/stream | 16.982 | 0.27 | 25.173 | 0.18 |
|                  | R4/stream | 46.07 | 0.10 | 28.803 | 0.16 |
| 20 m Drift mitigation | D3/ditch | 4.57 | 0.409 | 11.17 | 0.416 | 10.99 |
|                  | D4/pond | 0.09 | 50.78 | 0.095 | 48.11 |
|                  | D4/stream | 0.44 | 10.39 | 0.471 | 9.70 |
|                  | D5/pond | 0.093 | 49.14 | 0.109 | 41.93 |
|                  | D5/stream | 0.476 | 9.60 | 0.434 | 10.53 |
|                  | D6/ditch | 0.46 | 9.93 | 0.437 | 10.46 |
|                  | R1/pond | 0.253 | 18.06 | 0.55 | 8.31 |
|                | R1/stream | R2/stream | R3/stream | R4/stream |
|----------------|-----------|-----------|-----------|-----------|
|                | 10.478    | 7.504     | 16.981    | 46.07     |
|                | 0.44      | 0.61      | 0.27      | 0.10      |
|                | 11.503    | 9.647     | 25.173    | 28.803    |
|                | 0.40      | 0.47      | 0.18      | 0.16      |
|                | **10 m Drift + runoff mitigation** |        |          |          |
| D3/ditch       | 0.786     | 5.81      | 0.792     | 5.77      |
| D4/pond        | 0.137     | 33.36     | 0.145     | 31.52     |
| D4/stream       | 0.842     | 5.43      | 0.902     | 5.07      |
| D5/pond        | 0.139     | 32.88     | 0.159     | 28.74     |
| D5/stream       | 0.911     | 5.02      | 0.825     | 5.54      |
| D6/ditch       | 0.838     | 5.45      | 0.813     | 5.62      |
| R1/pond        | 0.164     | 27.87     | 0.305     | 14.98     |
| R1/stream       | 4.442     | 1.03      | 5.208     | 0.88      |
| R2/stream       | 3.362     | 1.36      | 4.247     | 1.08      |
| R3/stream       | 6.946     | 0.66      | 11.382    | 0.40      |
| R4/stream       | 20.86     | 0.22      | 13.093    | 0.35      |
|                | **20 m Drift + runoff mitigation** |        |          |          |
| D3/ditch       | 0.409     | 11.17     | 0.416     | 10.99     |
| D4/pond        | 0.09      | 50.78     | 0.095     | 48.11     |
| D4/stream       | 0.44      | 10.39     | 0.471     | 9.70      |
| D5/pond        | 0.093     | 49.14     | 0.109     | 41.93     |
| D5/stream       | 0.476     | 9.60      | 0.434     | 10.53     |
| D6/ditch       | 0.46      | 9.93      | 0.437     | 10.46     |
| R1/pond        | 0.095     | 48.11     | 0.17      | 26.88     |
| R1/stream       | 2.266     | 2.02      | 2.723     | 1.68      |
| R2/stream       | 1.75      | 2.61      | 2.2       | 2.08      |
| R3/stream       | 3.498     | 1.31      | 5.948     | 0.77      |
| R4/stream       | 10.909    | **0.42**  | 6.863     | 0.67      |
### FOCUS Scenarios

| FOCUS Scenarios                  | Primary producers SSD-RAC [µg a.s./L] | FOCUS Step 4 – pre-emergence soybeans | TER (RAC/PEC) |
|----------------------------------|--------------------------------------|---------------------------------------|--------------|
|                                  |                                      | PEC<sub>sw. max</sub> [µg/L]          |              |
| **5 m Drift mitigation**         |                                       |                                       |              |
| R3/stream                        | 4.57                                 | 23.084                                | 0.20         |
| R4/stream                        | 13.805                               |                                       | 0.33         |
| **10 m Drift mitigation**        |                                       |                                       |              |
| R3/stream                        | 4.57                                 | 23.084                                | 0.20         |
| R4/stream                        | 13.805                               |                                       | 0.33         |
| **20 m Drift mitigation**        |                                       |                                       |              |
| R3/stream                        | 4.57                                 | 23.084                                | 0.20         |
| R4/stream                        | 13.805                               |                                       | 0.33         |
| **10 m Drift + runoff mitigation** |                                      |                                       |              |
| R3/stream                        | 4.57                                 | 10.548                                | 0.43         |
| R4/stream                        | 6.285                                |                                       | 0.73         |
| **20 m Drift + runoff mitigation** |                                      |                                       |              |
| R3/stream                        | 4.57                                 | 5.539                                 | 0.83         |
| R4/stream                        | 3.295                                |                                       | 1.39         |
FOCUSsw step 4 - TERs dimethenamid-P – BAS 656 12 H in pre-emergence sunflower at 1 x 864 g a.s./ha

| FOCUS Scenarios | Primary producers SSD-RAC [µg a.s./L] | FOCUS Step 4 – pre-emergence sunflower | TER (RAC/PEC) |
|-----------------|----------------------------------------|----------------------------------------|--------------|
|                 |                                        | PECsw.max [µg/L]                       |              |
| 5 m Drift mitigation |                                        |                                        |              |
| D5/pond         |                                        | 0.19                                   | 24.05        |
| D5/stream        |                                        | 1.584                                  | 2.89         |
| R1/pond         |                                        | 0.339                                  | 13.48        |
| R1/stream        |                                        | 9.407                                  | 0.49         |
| R3/stream        |                                        | 43.354                                 | 0.11         |
| R4/stream        |                                        | 37.897                                 | 0.12         |
| 10 m Drift mitigation |                                        |                                        |              |
| D5/pond         |                                        | 0.14                                   | 32.64        |
| D5/stream        |                                        | 0.845                                  | 5.41         |
| R1/pond         |                                        | 0.308                                  | 14.84        |
| R1/stream        |                                        | 9.407                                  | 0.49         |
| R3/stream        |                                        | 43.354                                 | 0.11         |
| R4/stream        |                                        | 37.897                                 | 0.12         |
| 20 m Drift mitigation |                                        |                                        |              |
| D5/pond         |                                        | 0.094                                  | 48.62        |
| D5/stream        |                                        | 0.441                                  | 10.36        |
| R1/pond         |                                        | 0.279                                  | 16.38        |
| R1/stream        |                                        | 9.407                                  | 0.49         |
| R3/stream        |                                        | 43.354                                 | 0.11         |
| R4/stream        |                                        | 37.897                                 | 0.12         |
| 10 m Drift + runoff mitigation |                                        |                                        |              |
| D5/pond         |                                        | 0.14                                   | 32.64        |
| D5/stream        |                                        | 0.845                                  | 5.41         |
| R1/pond         |                                        | 0.174                                  | 26.26        |
| R1/stream        |                                        | 3.958                                  | 1.15         |
| R3/stream        |                                        | 19.801                                 | 0.23         |
| R4/stream        |                                        | 16.627                                 | 0.27         |
| 20 m Drift + runoff mitigation |                                        |                                        |              |
| D5/pond         |                                        | 0.094                                  | 48.62        |
| D5/stream        |                                        | 0.441                                  | 10.36        |
| R1/pond         |                                        | 0.1                                    | 45.70        |
TERs shown in bold indicate high risk (PEC > SSD-RAC)

| R1/stream   | 2.014 | 2.27 |
|------------|-------|------|
| R3/stream   | 10.394| 0.44 |
| R4/stream   | 8.594 | 0.53 |
FOCUSsw step 4 - TER (FOCUS step 4) calculations considering the algae SSD-RAC in the refined risk assessment for dimethenamid-P following one application [1 x 864 g a.s./ha pre-emergence] in sugar beets or [1 x 720 g a.s./ha, post-emergence] respectively, in sugar beets

| FOCUS Scenarios | Primary producers SSD-RAC [µg a.s./L] | FOCUS Step 4 – pre-emergence | FOCUS Step 4 – post-emergence | TER | TER |
|-----------------|----------------------------------------|-----------------------------|-----------------------------|-----|-----|
|                 |                                        | PECsw. max [µg/L]           | (RAC/PEC)                   |     |     |
|                 |                                        | 5 m Drift mitigation       |                             |     |     |
| D3/ditch        |                                        | 1.483                      | 3.08                       | 1.237 | 3.69 |
| D4/pond         |                                        | 0.189                      | 24.18                      | 0.169 | 27.04|
| D4/stream       |                                        | 1.578                      | 2.90                       | 1.346 | 3.40 |
| R1/pond         |                                        | 1.948                      | 2.35                       | 0.265 | 17.25|
| R1/stream       |                                        | 20.477                     | **0.22**                   | 3.597 | 1.27 |
| R3/stream       |                                        | 38.356                     | **0.12**                   | 5.7   | **0.80** |
|                 |                                        | 10 m Drift mitigation      |                             |     |     |
| D3/ditch        |                                        | 0.787                      | 5.81                       | 0.657 | 6.96 |
| D4/pond         |                                        | 0.144                      | 31.74                      | 0.125 | 36.56|
| D4/stream       |                                        | 0.847                      | 5.40                       | 0.723 | 6.32 |
| R1/pond         |                                        | 1.912                      | 2.39                       | 0.237 | 19.28|
| R1/stream       |                                        | 20.477                     | **0.22**                   | 3.597 | 1.27 |
| R3/stream       |                                        | 38.356                     | **0.12**                   | 5.7   | **0.80** |
|                 |                                        | 20 m Drift mitigation      |                             |     |     |
| D3/ditch        |                                        | 0.409                      | 11.17                      | 0.345 | 13.25|
| D4/pond         |                                        | 0.0978                     | 46.73                      | 0.084 | 54.40|
| D4/stream       |                                        | 0.445                      | 10.27                      | 0.38  | 12.03|
| R1/pond         |                                        | 1.875                      | 2.44                       | 0.211 | 21.66|
| R1/stream       |                                        | 20.477                     | **0.22**                   | 3.597 | 1.27 |
| R3/stream       |                                        | 38.356                     | **0.12**                   | 5.7   | **0.80** |
|                 |                                        | 10 m Drift + runoff mitigation |                          |     |     |
| D3/ditch        |                                        | 0.787                      | 5.81                       | 0.657 | 6.96 |
| D4/pond         |                                        | 0.144                      | 31.74                      | 0.125 | 36.56|
| D4/stream       |                                        | 0.847                      | 5.40                       | 0.723 | 6.32 |
| R1/pond         |                                        | 0.836                      | 5.47                       | 0.14  | 32.64|
| R1/stream       |                                        | 9.34                       | **0.49**                   | 1.631 | 2.80 |
| R3/stream       |                                        | 17.504                     | **0.26**                   | 2.603 | 1.76 |
|                 |                                        | 20 m Drift + runoff mitigation |                          |     |     |
| D3/ditch        |                                        | 0.409                      | 11.17                      | 0.345 | 13.25|
|                | TERs | PEC  | SSD-RAC |
|----------------|------|------|---------|
| D4/pond        | 0.0978 | 46.73 | 0.084   | 54.40   |
| D4/stream      | 0.445  | 10.27 | 0.38    | 12.03   |
| R1/pond        | 0.436  | 10.48 | 0.081   | 56.42   |
| R1/stream      | 4.898  | 0.93  | 0.854   | 5.35    |
| R3/stream      | 9.188  | 0.50  | 1.366   | 3.35    |

TERs shown in bold indicate high risk (PEC > SSD-RAC)
### BAS 830 01 H

**FOCUS<sub>sw</sub> step 1-3 - TERs for dimethenamid-P – BAS 830 01 H in winter oilseed rape at 1 x 500 g a.s./ha**

| Scenario | PEC global max (µg L) | fish acute | fish chronic | Aquatic invertebrates | Aquatic invertebrates prolonged | Algae | Higher plant |
|----------|------------------------|------------|--------------|-----------------------|---------------------------------|-------|--------------|
|          |                        | Oncorhynchus mykiss | Oncorhynchus mykiss | Americamysis bahia | Daphnia magna | Monoraphidium griffithii | Lemma gibba |
|          |                        | LC<sub>50</sub> | NOEC | EC<sub>50</sub> | NOEC | E<sub>C50</sub> | E<sub>C50</sub> |
|          | 2600 µg/L | 120 µg/L | 3200 µg/L | 680 µg/L | 25 µg/L | 14.4 µg/L |
| **FOCUS Step 1** | 140.85 | 18.46 | 0.85 | 22.72 | 4.83 | 0.18 | 0.10 |
| **FOCUS Step 2** | | | | | | | |
| North Europe | 56.95 | 45.65 | 2.11 | 56.19 | 11.94 | 0.44 | 0.26 |
| South Europe | 46.29 | 56.17 | 2.59 | 69.13 | 14.69 | 0.54 | 0.31 |
| **FOCUS Step 2** | | | | | | | |
| North Europe | 35.63 | 72.97 | 3.37 | 89.81 | 19.09 | 0.70 | 0.40 |
| South Europe | 29.23 | 88.95 | 4.11 | 109.48 | 23.26 | 0.86 | 0.49 |
| **FOCUS Step 3** | | | | | | | |
| pre-emergence | | | | | | | |
| D2/ditch | 8.318 | 312.58 | 14.43 | 384.71 | 81.75 | 3.01 | 1.73 |
| D2/stream | 5.206 | 499.42 | 23.05 | 614.68 | 130.62 | 4.80 | 2.77 |
| D3/ditch | 3.191 | 814.79 | 37.61 | 1002.82 | 213.10 | 7.83 | 4.51 |
| D4/pond | 0.427 | 6088.99 | 281.03 | 7494.15 | 1592.51 | 58.6 | 33.72 |
| D4/stream | 2.743 | 947.87 | 43.75 | 1166.61 | 247.90 | 9.11 | 5.25 |
| D5/pond | 0.207 | 12560.39 | 579.71 | 15458.94 | 3285.02 | 120.8 | 69.57 |
| D5/stream | 2.959 | 878.68 | 40.55 | 1081.45 | 229.81 | 8.45 | 4.87 |
| R1/pond | 0.122 | 21311.48 | 983.61 | 26229.51 | 5573.77 | 204.9 | 118.03 |
| R1/stream | 2.096 | 1240.46 | 57.25 | 1526.72 | 324.43 | 11.9 | 6.87 |
| R3/stream | 6.044 | 430.18 | 19.85 | 529.45 | 112.51 | 4.14 | 2.38 |
| **FOCUS Step 3** | | | | | | | |
| post-emergence | | | | | | | |
| D2/ditch | 20.377 | 127.59 | 5.89 | 157.04 | 33.37 | 1.23 | 0.71 |
| D2/stream | 12.707 | 204.61 | 9.44 | 251.83 | 53.51 | 1.97 | 1.13 |
| D3/ditch | 3.181 | 817.35 | 37.22 | 1005.97 | 213.77 | 7.86 | 4.53 |
| D4/pond | 0.787 | 3303.68 | 152.48 | 4066.07 | 864.04 | 31.8 | 18.30 |
### Table: TERs for Dimethenamid-P

| Scenario | Afuct | Afpest | Afwater | Teruct | Terpest | Terwater |
|----------|-------|--------|---------|--------|---------|----------|
| D4/stream | 2.747 | 946.49 | 43.68   | 1164.91| 247.54  | **9.10** | **5.24** |
| D5/pond   | 0.306 | 8496.73| 392.16  | 10457.52| 2222.22 | 81.7     | 47.06    |
| D5/stream  | 2.96  | 878.38 | 40.54   | 1081.08| 229.73  | **8.45** | **4.86** |
| R1/pond   | 0.136 | 19117.65| 882.35 | 23529.41| 5000.00 | 183.8    | 105.88   |
| R1/stream  | 2.096 | 1240.46| 57.25   | 1526.72| 324.43  | 11.9     | **6.87** |
| R3/stream  | 11.18 | 232.56 | 10.73   | 286.23 | 60.82   | **2.24** | **1.29** |

**Trigger**: *

* based on a single application in pre-emergence winter oilseed rape (worst case application during Oct-Feb)
+ based on a single application in post-emergence winter oilseed rape (worst case application during Oct-Feb)

**[Only scenarios where the trigger is not met at FOCUS step 1-2 should be included in step 3.]**

*If the Trigger value has been adjusted during the risk assessment, it should always be clear on what basis the risk assessment has been performed, i.e. what the AF value is and for which organism and endpoint it refers.

TERs shown in **bold** fall below the relevant trigger.
FOCUS Step 4 - TER values for dimethenamid-P – BAS 830 01 H in winter oil seed rape (OSR) [1 x 500 g a.s./ha] pre-emergence

| FOCUS Scenario / water body | PEC global max (µg/L) | Fish acute | Fish ELS | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic plant |
|-----------------------------|-----------------------|------------|----------|---------------------|------------------------|-------|---------------|
|                            |                       | Oncorhynchus mykiss | Oncorhynchus mykiss | Americamysis bahia | Daphnia magna | Monoraphidium griffithii | Lemna gibba |
|                             | LC₅₀ (µg/L) | NOEC (µg/L) | LC₅₀ (µg/L) | NOEC (µg/L) | E₅₀C₅₀ (µg/L) | E₅₀C₅₀ (µg/L) |
| step 4 pre-emergence OSR: 5 m drift mitigation | | | | | | |
| D2/ditch                    | 8.32                | 312.58     | 14.43     | 384.71              | 81.75               | 3.00  | 1.7           |
| D2/stream                    | 5.21                | 499.42     | 23.05     | 614.68              | 130.62              | 4.80  | 2.8           |
| D3/ditch                    | 0.87                | 2988.51    | 137.93    | 3678.16             | 781.61              | 28.74 | 16.6          |
| D4/pond                     | 0.43                | 6117.65    | 282.35    | 7529.41             | 1600.00             | 58.14 | 33.5          |
| D4/stream                    | 1.01                | 2587.06    | 119.40    | 3184.08             | 676.62              | 24.75 | 14.3          |
| D5/pond                     | 0.21                | 12560.39   | 579.71    | 15458.94            | 3285.02             | 119.05 | 68.6          |
| D5/stream                    | 1.08                | 2402.96    | 110.91    | 2957.49             | 628.47              | 23.15 | 13.3          |
| R1/pond                     | 0.10                | 25000.00   | 1153.85   | 30769.23            | 6538.46             | 50.00 | 144.0         |
| R1/stream                    | 0.77                | 3394.26    | 156.66    | 4177.55             | 887.73              | 32.47 | 18.7          |
| R3/stream                    | 6.04                | 430.18     | 19.85     | 529.45              | 112.51              | 4.14  | 2.4           |
| step 4 pre-emergence OSR: 10 m drift mitigation | | | | | | |
| D2/ditch                    | 8.32                | 312.58     | 14.43     | 384.71              | 81.75               | 3.00  | 1.7           |
| D2/stream                    | 5.21                | 499.42     | 23.05     | 614.68              | 130.62              | 4.80  | 2.8           |
| D3/ditch                    | 0.47                | 5508.47    | 254.24    | 6779.66             | 1440.68             | 53.19 | 2.8           |
| D4/pond                     | 0.42                | 6190.48    | 285.71    | 7619.05             | 1619.05             | 59.52 | 30.6          |
| D4/stream                    | 0.71                | 3661.97    | 169.01    | 4507.04             | 957.75              | 35.21 | 34.3          |
| D5/pond                     | 0.21                | 12560.39   | 579.71    | 15458.94            | 3285.02             | 119.05 | 20.3          |
| D5/stream                    | 0.57                | 4529.62    | 209.06    | 5574.91             | 1184.67             | 43.86 | 68.6          |
| FOCUS Scenario / water body | PEC global max (µg/L) | Fish acute | Fish ELS | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic plant |
|----------------------------|-----------------------|------------|---------|--------------------|-------------------------|-------|--------------|
|                            |                       | Oncorhynchus mykiss | Oncorhynchus mykiss | Americaenis bahia | Daphnia magna | Monoraphidium griffithii | Lemna gibba |
|  | LC₅₀ (µg/L) | NOEC (µg/L) | LC₅₀ (µg/L) | NOEC (µg/L) | E₅₀C₅₀ (µg/L) | E₅₀C₅₀ (µg/L) |
| R1/pond | 0.08 | 34666.67 | 1600.00 | 42666.67 | 9066.67 | 312.50 | 25.3 |
| R1/stream | 0.41 | 6403.94 | 295.57 | 7881.77 | 1674.88 | 60.98 | 180.0 |
| R3/stream | 6.04 | 430.18 | 19.85 | 529.45 | 112.51 | 4.14 | 35.1 |

**step 4 pre-emergence OSR: 20 m drift mitigation**

|  | D2/ditch | D2/stream | D3/ditch | D4/pond | D4/stream | D5/pond | D5/stream | R1/pond | R1/stream | R3/stream |
|----------------------------|-----------|-----------|----------|----------|-----------|----------|-----------|---------|-----------|-----------|
|  | 8.32      | 312.58    | 14.43    | 384.71   | 81.75     | 3.00     | 1.7       | 4.80    | 2.8       |
| D2/stream | 5.21      | 499.42    | 23.05    | 614.68   | 130.62    | 57.6     | 34.3      |
| D3/ditch | 0.25      | 10441.77  | 481.93   | 12851.41 | 2730.92   | 100.00   | 4.14      |
| D4/pond | 0.42      | 6250.00   | 288.46   | 7692.31  | 1634.62   | 59.52    | 35.1      |
| D4/stream | 0.71      | 3661.97   | 169.01   | 4507.04  | 957.75    | 35.21    | 20.3      |
| D5/pond | 0.21      | 12560.39  | 579.71   | 15458.94 | 3285.02   | 119.05   | 68.6      |
| D5/stream | 0.30      | 8666.67   | 400.00   | 10666.67 | 2266.67   | 83.33    | 48.0      |
| R1/pond | 0.05      | 52000.00  | 2400.00  | 64000.00 | 13600.00  | 500.00   | 288.0     |
| R1/stream | 0.21      | 12322.27  | 568.72   | 15165.88 | 3222.75   | 119.05   | 68.6      |
| R3/stream | 6.04      | 430.18    | 19.85    | 529.45   | 112.51    | 4.14     | 2.4       |

**step 4 pre-emergence OSR: 10 m drift + runoff mitigation**

|  | D2/ditch | D2/stream | D3/ditch | D4/pond | D4/stream | D5/pond | D5/stream | R1/pond | R1/stream | R3/stream |
|----------------------------|-----------|-----------|----------|----------|-----------|----------|-----------|---------|-----------|-----------|
|  | 8.32      | 312.58    | 14.43    | 384.71   | 81.75     | 3.00     | 1.7       | 4.80    | 2.8       |
| D2/stream | 5.21      | 499.42    | 23.05    | 614.68   | 130.62    | 57.6     | 34.3      |
| D3/ditch | 0.47      | 5508.47   | 254.24   | 6779.66  | 1440.68   | 53.19    | 30.6      |
| D4/pond | 0.42      | 6190.48   | 286.71   | 7619.05  | 1619.05   | 59.52    | 34.3      |
| D4/stream | 0.71      | 3661.97   | 169.01   | 4507.04  | 957.75    | 35.21    | 20.3      |
| FOCUS Scenario / water body | PEC global max (μg/L) | Fish acute | Fish ELS | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic plant |
|-----------------------------|-----------------------|------------|----------|---------------------|------------------------|-------|---------------|
|                             | Oncorhynchus mykiss   | Oncorhynchus mykiss | Americanysis bahia | Daphnia magna | Monoraphidium griffithii | Lemna gibba |
|                             | LC₅₀ (µg/L) | NOEC (µg/L) | LC₅₀ (µg/L) | NOEC (µg/L) | E₅ₐₐ₅₀ (µg/L) | E₅ₐₐ₅₀ (µg/L) |
| D5/pond                     | 0.21                  | 12560.39   | 579.71    | 15458.94   | 3285.02       | 119.05 | 68.6          |
| D5/stream                    | 0.57                  | 4529.62    | 209.06    | 5574.91    | 1184.67       | 43.86  | 25.3          |
| R1/pond                     | 0.08                  | 34666.67   | 1600.00   | 42666.67   | 9066.67       | 312.50 | 180.0         |
| R1/stream                    | 0.41                  | 6403.94    | 295.57    | 7881.77    | 1674.88       | 60.98  | 35.1          |
| R3/stream                    | 2.75                  | 944.08     | 43.57     | 1161.95    | 246.91        | 9.09   | 5.2           |
| step 4 pre-emergence OSR: 20 m drift + runoff mitigation |  |  |  |  |  |  |  |
| D2/ditch                    | 8.32                  | 312.58     | 14.43     | 384.71     | 81.75         | 3.00   | 1.7           |
| D2/stream                    | 5.21                  | 499.42     | 23.05     | 614.68     | 130.62        | 4.80   | 2.8           |
| D3/ditch                    | 0.25                  | 10441.77   | 481.93    | 12851.41   | 2730.92       | 100.00 | 57.6          |
| D4/pond                     | 0.42                  | 6250.00    | 288.46    | 7692.31    | 1634.62       | 59.52  | 34.3          |
| D4/stream                    | 0.71                  | 3661.97    | 169.01    | 4507.04    | 957.75        | 35.21  | 20.3          |
| D5/pond                     | 0.21                  | 12560.39   | 579.71    | 15458.94   | 3285.02       | 119.05 | 68.6          |
| D5/stream                    | 0.30                  | 8666.67    | 400.00    | 10666.67   | 2266.67       | 83.33  | 48.0          |
| R1/pond                     | 0.05                  | 52000.00   | 2400.00   | 64000.00   | 13600.00      | 500.00 | 288.0         |
| R1/stream                    | 0.21                  | 12322.27   | 568.72    | 15165.88   | 3222.75       | 119.05 | 68.6          |
| R3/stream                    | 1.45                  | 1799.31    | 83.04     | 2214.53    | 470.59        | 17.24  | 9.9           |
| TER criterion                | 100                   | 10         | 100       | 10         | 10            | 10     | 10            |
### FOCUS Step 4 - TER values for dimethenamid-P – BAS 830 01 H in winter oilseed rape (OSR) [1 x 500 g a.s./ha] post-emergence

| FOCUS Scenario / water body | PEC global max (µg/L) | Fish acute | Fish ELS | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic plant |
|-----------------------------|------------------------|------------|----------|---------------------|------------------------|-------|---------------|
|                            | **Oncorhynchus mykiss** | **Oncorhynchus mykiss** | **Americanmysis bahia** | **Daphnia magna** | **Monoraphidium griffithii** | **Lemna gibba** |
| **LC₅₀ (µg/L)**            | **NOEC (µg/L)**        | **LC₅₀ (µg/L)** | **NOEC (µg/L)** | **E₀C₅₀ (µg/L)** | **E₀C₅₀ (µg/L)** |
| step 4 post-emergence OSR: 5 m drift mitigation | 5.89 | 157.04 | 33.37 | 1.23 | 0.707 |
| D2/ditch                   | 20.377 | 127.59 | 3200 | 680 | 25 |
| D2/stream                   | 204.61 | 9.44 | 251.83 | 53.51 | 1.97 | 1.133 |
| D3/ditch                   | 0.876 | 2968.04 | 136.99 | 3652.97 | 776.26 | 28.54 | 16.438 |
| D4/pond                    | 0.783 | 3320.56 | 153.26 | 4086.85 | 868.45 | 31.93 | 18.391 |
| D4/stream                   | 1.342 | 1937.41 | 89.42 | 2384.50 | 506.71 | 18.63 | 10.730 |
| D5/pond                    | 0.306 | 8496.73 | 392.16 | 10457.52 | 2222.22 | 81.70 | 47.059 |
| D5/stream                   | 1.089 | 2387.51 | 110.19 | 2938.48 | 624.43 | 22.96 | 13.223 |
| R1/pond                    | 0.116 | 22413.79 | 1034.48 | 27586.21 | 5862.07 | 215.52 | 124.138 |
| R1/stream                   | 0.877 | 2964.65 | 136.83 | 3648.80 | 775.37 | 28.51 | 16.420 |
| R3/stream                   | 11.18 | 232.56 | 10.73 | 286.23 | 60.82 | 2.24 | 1.288 |

step 4 post-emergence OSR: 10 m drift mitigation

| D2/ditch                   | 20.377 | 127.59 | 5.89 | 157.04 | 33.37 | 1.23 | 0.707 |
| D2/stream                   | 204.61 | 9.44 | 251.83 | 53.51 | 1.97 | 1.133 |
| D3/ditch                   | 0.485 | 5360.82 | 247.42 | 6597.94 | 1402.06 | 51.55 | 29.691 |
| D4/pond                    | 0.776 | 3350.52 | 154.64 | 4123.71 | 876.29 | 32.22 | 18.557 |
| D4/stream                   | 1.342 | 1937.41 | 89.42 | 2384.50 | 506.71 | 18.63 | 10.730 |
| D5/pond                    | 0.306 | 8496.73 | 392.16 | 10457.52 | 2222.22 | 81.70 | 47.059 |
## FOCUS Scenario / water body

| PEC global max (µg/L) | Fish acute | Fish ELS | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic plant       |
|----------------------|------------|----------|---------------------|-------------------------|-------|---------------------|
| Oncorhyn-chus mykiss | Oncorhyn-chus mykiss | Americanysis bahia | Daphnia magna | Monoraphidium griffithii | Lemna gibba |
| LC₅₀ (µg/L) | NOEC (µg/L) | LC₅₀ (µg/L) | NOEC (µg/L) | E₅₀C₅₀ (µg/L) | E₅₀C₅₀ (µg/L) |
| 2600 | 120 | 3200 | 680 | 25 | 14.4 |

### step 4 post-emergence OSR: 20 m drift mitigation

| Scenario | D2/ditch | D2/stream | D3/ditch | D4/pond | D4/stream | D5/pond | D5/stream | R1/pond | R1/stream | R3/stream |
|----------|----------|-----------|----------|---------|-----------|---------|-----------|---------|-----------|-----------|
|          | 20.377   | 12.707    | 0.258    | 0.77    | 1.342     | 0.306   | 0.342     | 0.055   | 0.877     | 11.18     |
|          | 127.59   | 204.61    | 10077.52 | 3376.62 | 1937.41   | 8496.73 | 7602.34   | 47272.73| 2964.65   | 232.56    |
|          | 5.89     | 9.44      | 465.12   | 155.84  | 89.42     | 392.16  | 350.88    | 2181.82 | 136.83    | 10.73     |
|          | 157.04   | 251.83    | 12403.10 | 4155.84 | 2384.50   | 10457.52| 9356.73   | 58181.82| 3648.80   | 286.23    |
|          | 33.37    | 53.51     | 2635.66  | 883.12  | 506.71    | 2222.22 | 9356.73   | 12363.64| 775.37    | 60.82     |
|          | 1.23     | 1.97      | 96.90    | 32.47   | 18.63     | 81.70   | 73.10     | 454.55  | 28.51     | 2.24      |
|          | 0.707    | 1.133     | 55.814   | 18.701  | 10.730    | 47.059  | 42.105    | 261.818 | 16.420    | 1.288     |
### Table 1: Toxicological Data for Dimethenamid-P

| FOCUS Scenario / Water Body | PEC Global Max (µg/L) | Fish acute | Fish ELS | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic PLant |
|----------------------------|----------------------|------------|----------|---------------------|-------------------------|-------|---------------|
|                            |                      | Oncorhyn-chus mykiss | Oncorhyn-chus mykiss | Americanysis bahia | Daphnia magna | Monoraphidium griffithii | Lemna gibba |
|                            |                      | LC₅₀ (µg/L) | NOEC (µg/L) | LC₅₀ (µg/L) | NOEC (µg/L) | E₅₀C₅₀ (µg/L) | E₅₀C₅₀ (µg/L) |
|                            |                      | 2600       | 120       | 3200               | 680         | 25               | 14.4          |

**step 4 post-emergence OSR: 10 m drift + runoff mitigation**

|                | D2/ditch 20.377 | D2/stream 12.707 | D3/ditch 0.485 | D4/pond 0.776 | D4/stream 1.342 | D5/pond 0.306 | D5/stream 0.584 | R1/pond 0.084 | R1/stream 0.406 | R3/stream 5.095 |
|----------------|-----------------|-----------------|----------------|---------------|----------------|--------------|----------------|--------------|---------------|--------------|
| LC₅₀ (µg/L)   | 127.59          | 204.61          | 536.82         | 335.52        | 1937.41        | 8496.73      | 4452.05        | 30952.38     | 6403.94       | 510.30       |
| NOEC (µg/L)   | 5.89            | 9.44            | 247.42         | 154.64        | 89.42          | 392.16       | 205.48         | 1428.57      | 295.79        | 23.55        |
| LC₅₀ (µg/L)   | 157.04          | 251.83          | 6597.94        | 4123.71       | 2384.50        | 10457.52     | 5479.45        | 38095.24     | 7881.77       | 628.07       |
| NOEC (µg/L)   | 33.37           | 53.51           | 1402.06        | 876.29        | 506.71         | 2222.22      | 1164.38        | 2979.52      | 1674.88       | 133.46       |
| E₅₀C₅₀ (µg/L) | 1.23            | 1.97            | 51.55          | 32.22         | 18.63          | 81.70        | 42.81          | 297.62       | 61.58         | 4.91         |

**step 4 post-emergence OSR: 20 m drift + runoff mitigation**

|                | D2/ditch 20.377 | D2/stream 12.707 | D3/ditch 0.258 | D4/pond 0.77 | D4/stream 1.342 | D5/pond 0.306 | D5/stream 0.342 | R1/pond 0.055 |
|----------------|-----------------|-----------------|----------------|--------------|----------------|--------------|----------------|--------------|
| LC₅₀ (µg/L)   | 127.59          | 204.61          | 10077.52       | 3376.62      | 1937.41        | 8496.73      | 7602.34        | 47272.73     |
| NOEC (µg/L)   | 5.89            | 9.44            | 465.12         | 155.84       | 89.42          | 392.16       | 350.88         | 2181.82      |
| LC₅₀ (µg/L)   | 157.04          | 251.83          | 12403.10       | 4155.84      | 2384.50        | 10457.52     | 9356.73        | 58181.82     |
| NOEC (µg/L)   | 33.37           | 53.51           | 2635.66        | 883.12       | 506.71         | 2222.22      | 1988.30        | 12363.64     |
| E₅₀C₅₀ (µg/L) | 1.23            | 1.97            | 96.90          | 32.47        | 18.63          | 81.70        | 73.10          | 454.55       |
| E₅₀C₅₀ (µg/L) | 0.707           | 1.133           | 55.814         | 18.701       | 10.730         | 47.059       | 42.105         | 261.818      |
| FOCUS Scenario / water body | PEC global max (µg/L) | Fish acute | Fish ELS | Invertebrates acute | Invertebrates prolonged | Algae | Aquatic plant |
|-----------------------------|-----------------------|------------|----------|---------------------|-------------------------|------|--------------|
|                             | Oncorhynchus mykiss   | Oncorhynchus mykiss | Americamysis bahia | Daphnia magna | Monoraphidium griffithii | Lemna gibba |
| LC₅₀ (µg/L)                 | NOEC (µg/L) | LC₅₀ (µg/L) | NOEC (µg/L) | E₅₀ (µg/L) | E₅₀ (µg/L) |
| R1/stream                   | 0.211           | 12322.27   | 568.72    | 15165.88  | 3222.75    | 118.48 | 68.246       |
| R3/stream                   | 2.671           | 973.42     | 44.93     | 1198.05   | 254.59     | **9.36** | **5.391**    |
| TER criterion               |                 |            |           |          |            |       |              |
|                             | 100             | 10         | 100       | 10        | 10         | 10    | 10           |
FOCUSsw step 4 - TER (FOCUS step 4) calculations considering the algae SSD-RAC in the refined risk assessment for dimethenamid-P following one application [1 x 500 g a.s./ha] in pre-emergence and post-emergence winter oilseed rape

| FOCUS Scenarios | Primary producers SSD-RAC [µg a.s./L] | FOCUS Step 4 – Oil seed rape (pre-emergence) | FOCUS Step 4 – Oil seed rape (post-emergence) |
|-----------------|----------------------------------------|---------------------------------------------|---------------------------------------------|
|                 |                                        | PEC_{sw, max} [µg/L] | TER (RAC/PEC) | PEC_{sw, max} [µg/L] | TER (RAC/PEC) |
| 5 m Drift mitigation |                                        |                             |               |                             |               |
| D2/ditch        |                                        | 8.32                        | 0.55          | 20.377                     | 0.22          |
| D2/stream       |                                        | 5.21                        | 0.88          | 12.707                     | 0.36          |
| D3/ditch        |                                        | 0.87                        | 5.25          | 0.876                      | 5.22          |
| D4/pond         |                                        | 0.43                        | 10.63         | 0.783                      | 5.84          |
| D4/stream       |                                        | 1.01                        | 4.52          | 1.342                      | 3.41          |
| D5/pond         |                                        | 0.21                        | 21.76         | 0.306                      | 14.93         |
| D5/stream       |                                        | 1.08                        | 4.23          | 1.089                      | 4.20          |
| R1/pond         |                                        | 0.1                         | 45.70         | 0.116                      | 39.40         |
| R1/stream       |                                        | 0.77                        | 5.94          | 0.877                      | 5.21          |
| R3/stream       |                                        | 6.04                        | 0.76          | 11.18                      | 0.41          |
| 10 m Drift mitigation |                                        |                             |               |                             |               |
| D2/ditch        |                                        | 8.32                        | 0.55          | 20.377                     | 0.22          |
| D2/stream       |                                        | 5.21                        | 0.88          | 12.707                     | 0.36          |
| D3/ditch        |                                        | 0.47                        | 9.72          | 0.876                      | 5.22          |
| D4/pond         |                                        | 0.42                        | 10.88         | 0.783                      | 5.84          |
| D4/stream       |                                        | 0.71                        | 6.44          | 1.342                      | 3.41          |
| D5/pond         |                                        | 0.21                        | 21.76         | 0.306                      | 14.93         |
| D5/stream       |                                        | 0.57                        | 8.02          | 1.089                      | 4.20          |
| R1/pond         |                                        | 0.08                        | 57.13         | 0.116                      | 39.40         |
| R1/stream       |                                        | 0.41                        | 11.15         | 0.877                      | 5.21          |
| R3/stream       |                                        | 6.04                        | 0.76          | 11.18                      | 0.41          |
| 20 m Drift mitigation |                                        |                             |               |                             |               |
| D2/ditch        |                                        | 8.32                        | 0.55          | 20.377                     | 0.22          |
| D2/stream       |                                        | 5.21                        | 0.88          | 12.707                     | 0.36          |
| D3/ditch        |                                        | 0.25                        | 18.28         | 0.258                      | 17.71         |
| D4/pond         |                                        | 0.42                        | 10.88         | 0.77                       | 5.94          |
| D4/stream       |                                        | 0.71                        | 6.44          | 1.342                      | 3.41          |
| D5/pond         |                                        | 0.21                        | 21.76         | 0.306                      | 14.93         |
| D5/stream       |                                        | 0.3                         | 15.23         | 0.342                      | 13.36         |
| R1/pond         |                                        | 0.05                        | 91.40         | 0.055                      | 83.09         |
### Drift + runoff mitigation

| Distance | Type       | TER  | SSD-RAC | High Risk |
|----------|------------|------|---------|-----------|
| 10 m     | D2/ditch   | 8.32 | 0.55    | 20.377    | 0.22 |
|          | D2/stream  | 5.21 | 0.88    | 12.707    | 0.36 |
|          | D3/ditch   | 0.47 | 9.72    | 0.485     | 9.42 |
|          | D3/stream  | 0.42 | 10.88   | 0.776     | 5.89 |
|          | D4/ditch   | 0.71 | 6.44    | 1.342     | 3.41 |
|          | D4/stream  | 0.21 | 21.76   | 0.306     | 14.93|
|          | D5/ditch   | 0.57 | 8.02    | 0.584     | 7.83 |
|          | D5/stream  | 0.08 | 57.13   | 0.084     | 54.40|
|          | R1/pond    | 0.41 | 11.15   | 0.406     | 11.26|
|          | R1/stream  | 2.75 | 1.66    | 5.095     | 0.90 |

| Distance | Type       | TER  | SSD-RAC | High Risk |
|----------|------------|------|---------|-----------|
| 20 m     | D2/ditch   | 8.32 | 0.55    | 20.377    | 0.22 |
|          | D2/stream  | 5.21 | 0.88    | 12.707    | 0.36 |
|          | D3/ditch   | 0.25 | 18.28   | 0.258     | 17.71|
|          | D3/stream  | 0.42 | 10.88   | 0.77      | 5.94 |
|          | D4/ditch   | 0.71 | 6.44    | 1.342     | 3.41 |
|          | D4/stream  | 0.21 | 21.76   | 0.306     | 14.93|
|          | D5/ditch   | 0.57 | 8.02    | 0.584     | 7.83 |
|          | D5/stream  | 0.08 | 57.13   | 0.084     | 54.40|
|          | R1/pond    | 0.41 | 11.15   | 0.406     | 11.26|
|          | R1/stream  | 2.75 | 1.66    | 5.095     | 0.90 |

TERs shown in bold indicate high risk (PEC > SSD-RAC)
Fish acute TER values for the metabolites M656H003, M656H023 and M656H027 using the worst-case FOCUS Step 1 PEC_{SW,max} values

| Test substance | Test organism | 96 h LC_{50} [µg/L] | Crop | FOCUS Step | PEC_{SW,max} [µg/L] | TER_A | Trigger value |
|---------------|--------------|----------------------|------|------------|---------------------|-------|---------------|
| M656H003 | *O. mykiss* | 60800 | maize (pre- & post-emergence), soybeans, sunflowers | 1 | 0.997 | 60983 | 100 |
| | | | sugar beets (post-emergence) | 1 | 0.831 | 73165 | 100 |
| M656H023 | *O. mykiss* | > 87000 | maize (pre- & post-emergence), soybeans, sunflowers | 1 | 38.220 | > 2276 | 100 |
| | | | sugar beets (post-emergence) | 1 | 31.849 | > 2732 | 100 |
| M656H027 | *O. mykiss* | > 100000 | maize (pre- & post-emergence), soybeans, sunflowers | 1 | 42.686 | > 2343 | 100 |
| | | | sugar beets (post-emergence) | 1 | 35.572 | > 2811 | 100 |

Acute TER values for *D. magna* exposed to metabolites M656H003, M656H023, M656H027 and M656H031 using the worst-case FOCUS Step 1 PEC_{SW,max} values

| Test substance | Test organism | 48 h EC_{50} [µg/L] | Crop | FOCUS Step | PEC_{SW,max} [µg/L] | TER_A | Trigger value |
|---------------|--------------|----------------------|------|------------|---------------------|-------|---------------|
| M656H003 | *D. magna* | > 101600 | maize (pre- & post-emergence), soybeans, sunflowers | 1 | 0.997 | > 101906 | 100 |
| | | | sugar beets (post-emergence) | 1 | 0.831 | > 122262 | 100 |
| M656H023 | *D. magna* | > 95000 | maize (pre- & post-emergence), soybeans, sunflowers | 1 | 38.220 | > 2486 | 100 |
| | | | sugar beets (post-emergence) | 1 | 31.849 | > 2983 | 100 |
| M656H027 | *D. magna* | > 100000 | maize (pre- & post-emergence), soybeans, sunflowers | 1 | 42.686 | > 2343 | 100 |
| | | | sugar beets (post-emergence) | 1 | 35.572 | > 2811 | 100 |
| M656H031 | *D. magna* | > 100000 | maize (pre- & post-emergence), soybeans, sunflowers | 1 | 24.857 | > 4023 | 100 |
| | | | sugar beets (post-emergence) | 1 | 20.714 | > 4828 | 100 |
### TER values for algae\(^1\) exposed to major metabolites using worst-case FOCUS Step 1 PEC\(_{SW, \text{max}}\) values

| Test substance | Test organism    | 72 h EC\(_{50}\) [µg/L] | Crop                                      | FOCUS Step | PEC\(_{SW, \text{max}}\) [µg/L] | TER  | Trigger value |
|----------------|------------------|--------------------------|------------------------------------------|------------|-------------------------------|------|---------------|
| M656H003       | *D. subspicatus*  | 68500                    | maize (pre- & post-emergence), soybeans, sunflowers, sugar beets (post-emergence) | 1          | 0.997                         | 68706| 10            |
| M656H023       | *P. subcapitata*  | > 94000                  | maize (pre- & post-emergence), soybeans, sunflowers, sugar beets (post-emergence) | 1          | 38.220                        | > 2459| 10            |
| M656H027       | *P. subcapitata*  | > 208000                 | maize (pre- & post-emergence), soybeans, sunflowers, sugar beets (post-emergence) | 1          | 42.686                        | > 4873| 10            |
| M656H031       | *P. subcapitata*  | > 100000                 | maize (pre- & post-emergence), soybeans, sunflowers, sugar beets (post-emergence) | 1          | 24.857                        | > 4023| 10            |

1) Where several endpoints are available for the same group or where several endpoints are available for one study based on different effect parameters, the lowest (most sensitive) endpoint is used in the TER calculations.

### TER values for the aquatic plant *Lemna gibba*\(^1\) exposed to metabolites M656H031, M656H062, M656PH043 and M656H055 using worst-case FOCUS Step 1 PEC\(_{SW, \text{max}}\) values

| Test substance | Test organism | 7 d EC\(_{50}\) [µg/L] | Crop                                      | FOCUS Step | PEC\(_{SW, \text{max}}\) [µg/L] | TER\(_{LT}\) | Trigger value |
|----------------|---------------|--------------------------|------------------------------------------|------------|-------------------------------|-------------|---------------|
| M656H031       | *L. gibba*    | > 100000                 | maize (pre- & post-emergence), soybeans, sunflowers, sugar beets (post-emergence) | 1          | 24.857                        | 4023        | 10            |
| M656H062       | *L. gibba*    | > 54570                  | maize (pre- & post-emergence), soybeans, sunflowers, sugar beets (post-emergence) | 1          | 243.394 #                     | > 224       | 10            |
| M656PH043      | *L. gibba*    | > 100000                 | maize (pre- & post-emergence), soybeans, sunflowers, sugar beets (post-emergence) | 1          | 202.828 #                     | > 493       | 10            |
1) Where several endpoints are available for the same group or where several endpoints are available for one study based on different effect parameters, the lowest (most sensitive) endpoint is used in the TER calculations.

# For the metabolites M656H062 (tested with Reg. No. 403 121; for details see above), M656PH043 and M656H055, the worst-case Step 1 PEC value for the active substance is used for TER calculations (for justifications see above)

| Compound   | Species  | Threshold | Effect | PEC Step 1 | TER Calculation |
|------------|----------|-----------|--------|------------|-----------------|
| M656H055   | L. gibba | > 143000  | maize  | 243.394    | > 588           |
|            |          |           | soybeans, sunflowers |          | 10              |
|            |          |           | sugar beets (post-emergence) | 202.828   | > 705           | 10              |
Effects on bees (Regulation (EU) N° 283/2013, Annex Part A, point 8.3.1 and Regulation (EU) N° 284/2013 Annex Part A, point 10.3.1)

THIS PART DOES NOT REFLECT THE NEW EFSA GD ON BEES WHICH HAS NOT YET BEEN TAKEN NOTE BY EC. THIS WAS BECAUSE OF DIFFERENCES BETWEEN THE DATA REQUIREMENTS AND THE MORE DETAILED APPROACHES PROPOSED BY THE NEW EFSA GD ON BEES.

| Species           | Test substance       | Time scale/type of endpoint | End point                          | toxicity                      |
|-------------------|----------------------|-----------------------------|------------------------------------|-------------------------------|
| **Honeybee**      |                      |                             |                                    |                               |
|                   | Dimethenamid-P       |                            |                                    |                               |
|                   | (BAS 656 H)          | Acute                       | 48h oral toxicity (LD<sub>50</sub>) | 118.8 µg as/bee**             |
|                   |                      |                             | 48h contact toxicity (LD<sub>50</sub>) | 93.8 µg as/bee**             |
|                   | BAS 830 01 H         | Acute                       | 48h oral toxicity (LD<sub>50</sub>) | 233.9 µg product/bee (103.0 µg as/bee) |
|                   |                      |                             | 48h contact toxicity (LD<sub>50</sub>) | > 454.0 µg product/bee (>200.0 µg as/bee) |
|                   | BAS 656 12 H         | Acute                       | 48 h oral (LD<sub>50</sub>)       | 190.6 µg product/bee (122.4 µg a.s./bee) |
|                   |                      |                             | 48 h contact (LD<sub>50</sub>)    | 232.2 µg product/bee (149.1 µg a.s./bee) |
| **Bumblebee**     |                      |                             |                                    |                               |
|                   | Dimethenamid-P       |                            |                                    |                               |
|                   | (BAS 656 H)          | Acute                       | 48h oral toxicity (LD<sub>50</sub>) | > 158 µg as/bee               |
|                   |                      |                             | 48h contact toxicity (LD<sub>50</sub>) | > 200 µg as/bee               |
| **Honeybee**      |                      |                             |                                    |                               |
| **larvae**        | Dimethenamid-P       |                            |                                    |                               |
|                   | (BAS 656 H)          | Bee brood development       | NOED larvae (96 h)                 | 49.6 µg as/larvae*            |
|                   |                      |                             | NOEC larvae (96 h)                 | 1.464 g as/kg food*           |
| **Honeybee**      | Dimethenamid-P       | Chronic                     | 10 d-LD<sub>50</sub>              | 0.693 g a.s./kg diet          |
|                   | (BAS 656 H)          |                             | 10 day NOED                       | 8.7 µg a.s./bee/day           |
|                   |                      |                             | 10 day LC<sub>50</sub>            | 0.693 g a.s./kg diet          |
|                   |                      |                             | 10 day NOEC                       | 0.321 g a.s./kg diet          |
| **Honeybee**      | -                    | Sub-lethal effects (behavioural and reproductive) | NOEC hypopharyngeal glands | No data |

* Endpoints from a single dose in-vitro laboratory study. Sub-lethal effects were seen and not all food was consumed (i.e. the toxicity may be underestimated)

** Endpoints from studies conducted in autumn using old bees (3-5 weeks).

Potential for accumulative toxicity: No data

Semi-field test (Cage and tunnel test)
As BAS 656 H and BAS 830 01 H does not pose an unacceptable risk to honeybees, further tests are not
necessary.

Field tests
As BAS 656 H and BAS 830 01 H does not pose an unacceptable risk to honeybees, further tests are not necessary.

Risk assessment for – [representative use] at [application rate] g a.s./ha [x number of applications]

ETRs were not calculated, as the EFSA Bee GD is not officially noted yet.
The recommended use pattern for BAS 830 01 H includes application in winter oilseed rape at a maximum application rate of up to 1702.5 g product/ha (500 g dimethenamid-P/ha).

| Species       | Test substance          | Risk quotient | HQ/ETR | Trigger |
|---------------|-------------------------|---------------|--------|---------|
| Honeybee      | BAS 830 01 H (1702.5 g product/ha) | HQ oral       | 7.3    | 50      |
| Honeybee      | BAS 830 01 H (1702.5 g product/ha) | HQ contact    | < 3.8  | 50      |
| Honeybee      | -                       | ETR acute adult oral | -      | -       |
| Honeybee      | -                       | ETR chronic adult oral | -      | -       |
| Honeybee      | -                       | ETR larvae    | -      | -       |
| Honeybee      | -                       | ETR hpg       | -      | -       |

The recommended use pattern for BAS 656 12 H includes application in maize, sugar beets, soybeans at a maximum application rate of up to 864 g dimethenamid-P/ha.

| Species       | Test substance          | Risk quotient | HQ/ETR | Trigger |
|---------------|-------------------------|---------------|--------|---------|
| Honeybee      | BAS 656 12 H* (864 g dimethenamid-P/ha) | HQ oral       | 7.3    | 50      |
| Honeybee      | BAS 656 12 H* (864 g dimethenamid-P/ha) | HQ contact    | 9.2    | 50      |
| Honeybee      | -                       | ETR acute adult oral | -      | -       |
| Honeybee      | -                       | ETR chronic adult oral | -      | -       |
| Honeybee      | -                       | ETR larvae    | -      | -       |
| Honeybee      | -                       | ETR hpg       | -      | -       |

* tested as technical dimethenamid-P
Bumble bees: Regarding the risk assessment of bumblebees no risk assessments currently exists. However, the endpoints obtained for acute oral and acute contact exposure to dimethenamid-P indicate a huge margin of safety and it can be concluded that low risk is expected from the use of dimethenamid-P as contained in BAS 830 01 H and BAS 656 12 H according the proposed uses.
Effects on other arthropod species (Regulation (EU) N° 283/2013, Annex Part A, point 8.3.2 and Regulation (EU) N° 284/2013 Annex Part A, point 10.3.2)

Laboratory tests with standard sensitive species

| Species                  | Test Substance | End point | Toxicity |
|--------------------------|----------------|-----------|----------|
| *Typhlodromus pyri*      | BAS 656 07 H   | Mortality, LR<sub>50</sub> | > 1.400 L/ha |
|                          |                | Reproduction, ER<sub>50</sub> | > 1.400 L/ha |
| *Aphidius rhopalosiphi*  | BAS 656 07 H   | Mortality, LR<sub>50</sub> | < 1.400 L/ha |
| *Aphidius rhopalosiphi*  | BAS 656 08 H   | Mortality, LR<sub>50</sub> | 0.0663 L/ha |

Typhlodromus pyri | BAS 830 01 H | Mortality, LR<sub>50</sub> | > 3 L/ha |

*Aphidius rhopalosiphi* | BAS 830 01 H | Mortality, LR<sub>50</sub> | 0.0336 L/ha |

| Additional species       | Test Substance | End point | Toxicity |
|--------------------------|----------------|-----------|----------|
| *Aleochara bilineata*    | BAS 656 07 H   | Mortality, LR<sub>50</sub> | > 1.400 L/ha |
|                          |                | Reproduction, ER<sub>50</sub> | > 1.400 L/ha |
| *Chrysoperla carnea*     | BAS 656 07 H   | Mortality, LR<sub>50</sub> | > 1.400 L/ha |
|                          |                | Reproduction, ER<sub>50</sub> | > 1.400 L/ha |
| *Poecilus cupreus*       | BAS 656 07 H   | Mortality, LR<sub>50</sub> | > 1.400 L/ha |
|                          |                | Reproduction, ER<sub>50</sub> | > 1.400 L/ha |
| *Pardosa sp.*            | BAS 656 07 H   | Mortality, LR<sub>50</sub> | > 1.400 L/ha |
|                          |                | Reproduction, ER<sub>50</sub> | > 1.400 L/ha |

1) Study was carried out with BAS 656 07 H (a similar formulation to BAS 656 12 H ).
2) Study was carried out with BAS 656 08 H (a similar formulation to BAS 656 12 H).

First tier risk assessment for BAS 656 12 H in maize, Sweet corn, soybean, sunflower, and beets at 1.2 L prep./ha (equivalent to 864 g a.s./ha) [1x, includes splitting in 2 or 3 applications 5-10 day interval in sugar beet]

| Test substance | Species          | Effect (LR<sub>50</sub> L/ha) | HQ in-field | HQ off-field<sup>1</sup> | Trigger |
|----------------|------------------|-------------------------------|-------------|------------------------|---------|
| BAS 656 07 H   | *Typhlodromus pyri* | > 1.400                      | 0.86        | 0.237 (1 m: 2.77 %)    | 2       |
| BAS 656 08 H   | *Aphidius rhopalosiphi* | 0.0663                       | 18          | 0.2 (1 m: 2.77 %)      | 2       |

<sup>1</sup>indicate distance assumed to calculate the drift rate

First tier risk assessment for – BAS 830 01 H at 1.5 L prep./ha (500 g dimethenamid-p/ha + 250 g Quinmerac/ha) [1x, includes splitting in 2 or 3 applications 5-10 day interval in sugar beet]

| Test substance | Species          | Effect (LR<sub>50</sub> L/ha) | HQ in-field | HQ off-field<sup>1</sup> | Trigger |
|----------------|------------------|-------------------------------|-------------|------------------------|---------|
| BAS 830 01 H   | *Typhlodromus pyri* | > 3 000                       | 0.5         | 0.01385 (1 m: 2.77 %)   | 2       |
| BAS 830 01 H   | *Aphidius rhopalosiphi* | 33.6                         | 44.6        | 1.2366 (1 m: 2.77 %)    | 2       |

<sup>1</sup>indicate distance assumed to calculate the drift rate

Extended laboratory tests, aged residue tests
### Table: Species, Life stage, and test results

| Species                        | Life stage | Test substance, substrate          | Time scale | Dose (L/ha) | End point       | % effect     | ER$_{50}$ |
|--------------------------------|------------|------------------------------------|------------|-------------|----------------|--------------|-----------|
| *Aphidius rhopalosiphi*         | adults     | BAS 656 07 H, barley seedlings, 3D | 2 d        | 0.14$_{\text{(ini)}}$ 1.4$_{\text{(ini)}}$ | Mortality, reproduction | 0 %; 23 %; 0 %; 46 % | >1.400 L prep./ha |
| *Aphidius rhopalosiphi*         | adults     | BAS 830 01 H, barley seedlings, 3D | 2 d        | 0.1875 – 3$_{\text{(ini)}}$ | Mortality, reproduction | max. 6.7 %; max. 8.2 % | > 3 L prep./ha |
| *Aleochara bilineata*           | adults     | BAS 830 01 H, sandy soil, 2D      | 28 d       | 1.5$_{\text{(ini)}}$ 3.0$_{\text{(ini)}}$ | Reproduction          | 8.3 % 23.3 % | > 3 L prep./ha |

1 Study was carried out with BAS 656 07 H (a similar formulation to BAS 656 12 H).

### Risk assessment for – for BAS 656 12 H in maize, Sweet corn, soybean, sunflower, and beets at 1.2 L prep./ha (equivalent to 864 g a.s./ha) [1x, 1x; includes splitting in 2 or 3 applications 5-10 day interval in sugar beet]

| Species                        | ER$_{50}$ (mL/ha) | In-field rate (mL/ha) | Corrected Off-field rate (mL/ha) |
|--------------------------------|-------------------|-----------------------|----------------------------------|
| *Aphidius rhopalosiphi*         | 1 400$_{\text{1)}}$ | 1 200                 | 332(1 m: 2.77 %; 3D)              |

1 indicate distance assumed to calculate the drift rate and if 3D or 2D.

### Risk assessment for – BAS 830 01 H in winter oilseed rape at 1.5 L prep./ha (500 g dimethenamid-p/ha + 250 g Quinmerac/ha [1x]

| Species                        | ER$_{50}$ (mL/ha) | In-field rate (mL/ha) | Corrected Off-field rate$_{1}$ |
|--------------------------------|-------------------|-----------------------|--------------------------------|
| *Aphidius rhopalosiphi*         | 3 000              | 1 500                 | 415.5 (1 m: 2.77 %; 3D)         |
| *Aleochara bilineata*           | 3 000              | 1 500                 | 41.55 (1 m: 2.77 %; 2D)         |

1 indicate distance assumed to calculate the drift rate and if 3D or 2D.

### Additional tables

#### Semi-field tests
- Not required

#### Field studies
- Not required

#### Additional specific test
- Not required
Effects on non-target soil meso- and macro fauna; effects on soil nitrogen transformation
(Regulation (EU) N° 283/2013, Annex Part A, points 8.4, 8.5, and Regulation (EU) N° 284/2013
Annex Part A, points 10.4, 10.5)

| Test organism | Test substance | Application method of test a.s./OM | Time scale | End point | Toxicity |
|---------------|----------------|-----------------------------------|------------|-----------|----------|
| **Earthworms** |                |                                   |            |           |          |
| Eisenia fetida | Dimethenamid-P | Incorporated/5 %                   | Chronic, 56 d | Growth, reproduction, mortality reproduction | NOEC = 25.4 mg a.s./kg d.w.soil; ER<sub>10</sub> = 22.9 mg as/kg dry soil; ER<sub>20</sub> = 26.3 mg as/kg dry soil |
|               |                |                                   |            |           |          |
| Eisenia fetida | M 23           | Incorporated/5 % peat              | Chronic, 56 d | Growth, reproduction, mortality       | NOEC = 8.32 mg a.s./kg d.w.soil; |
|               |                |                                   |            |           |          |
| Eisenia fetida | M 27           | Incorporated/5 % peat              | Chronic, 56 d | Growth, reproduction, mortality       | NOEC = 10.56 mg a.s./kg d.w.soil |
|               |                |                                   |            |           |          |
| Eisenia fetida | M 31           | Incorporated/5 % peat              | Chronic, 56 d | Growth, reproduction, mortality       | NOEC = 100 mg a.s./kg d.w.soil |
|               |                |                                   |            |           |          |
| Eisenia fetida | BAS 656 12 H   | Incorporated/5 %                  | Chronic, 56 d | Growth, reproduction, mortality       | NOEC = 40 mg a.s./kg d.w.soil; NOEC = 20 mg a.s./kg d.w.soil; NOEC = 80 mg a.s./kg d.w.soil; ER<sub>10</sub>, mortality = 153 mg a.s./kg d.w.soil; ER<sub>20</sub>, mortality = 162 mg a.s./kg d.w.soil; ER<sub>10</sub>, repro = 19.3 mg a.s./kg d.w.soil; ER<sub>20</sub>, repro = 22.8 mg a.s./kg d.w.soil |
| Test organism       | Test substance | Application method of test a.s./OM | Time scale | End point                                    | Toxicity                                                                 |
|---------------------|----------------|----------------------------------|------------|---------------------------------------------|--------------------------------------------------------------------------|
| *Eisenia fetida*    | BAS 830 01 H   | Incorporated/5%                  | Chronic, 56 d | Growth, reproduction, mortality             | NOEC = 89 mg prep./kg dw soil (corresponding to 26 mg dimethenamid-P/kg dry soil and 13 mg quinmerac/kg dry soil) ER10, repro = 73.3 mg a.s./kg d.w.soil; ER20, repro = 106.3 mg a.s./kg d.w.soil |
| Other soil macroorganisms                                                                 |
| *Folsomia candida*  | Dimethenamid-P | Incorporated/5% peat             | Chronic    | Mortality                                    | NOEC = 12.5 mg a.s./kg d.w.soil \ ER10 = 8.1 mg a.s./kg d.w.soil \ ER20 = 20.8 mg a.s./kg d.w.soil NOEC = 25 mg a.s./kg d.w.soil \ ER10 = 14.8 mg a.s./kg d.w.soil \ ER20 = 21.3 mg a.s./kg d.w.soil |
| *Folsomia candida*  | BAS 656 12 H   | Incorporated/5% peat             | Chronic, 28 d | Reproduction                                | NOEC = 18.75 mg prep./kg d.w.soil (corresponding to 12.1 mg dimethenamid-P/kg dry soil) \ ER10 = 25 mg a.s./kg d.w.soil \ ER20 = 36.5 mg a.s./kg d.w.soil |
| Test organism       | Test substance     | Application method of test a.s./OM<sup>1</sup> | Time scale | End point               | Toxicity                                                                 |
|--------------------|--------------------|-----------------------------------------------|------------|-------------------------|-------------------------------------------------------------------------|
| **Folsomia candida** | BAS 830 01 H       | Incorporated/5 % peat                          | Chronic, 28 d | Reproduction            | NOEC = 75 mg prep./kg d.w.soil (corresponding to 22 mg dimethenamid-P/kg dry soil and 11 mg quinmerac/kg dry soil) |
| **Folsomia candida** | M 23               | Incorporated/5 % peat                          | Chronic, 28 d | Growth, reproduction, behaviour | NOEC = 200 mg a.s./kg d.w.soil<sup>2</sup>                                |
| **Folsomia candida** | M 27               | Incorporated/5 % peat                          | Chronic, 28 d | Mortality, reproduction  | NOEC = 200 mg a.s./kg d.w.soil<sup>2</sup>                                |
| **Folsomia candida** | M 31               | Incorporated/5 % peat                          | Chronic, 28 d | Mortality, reproduction  | NOEC = 200 mg a.s./kg d.w.soil<sup>2</sup>                                |
| **Hypoaspis aculeifer** | Dimethenamid-P    | Incorporated/5 % peat                          | Chronic, 14 d | Mortality, Reproduction | NOEC = 1000 mg a.s./kg d.w.soil
NOEC = 500 mg a.s./kg d.w.soil
ER<sub>10</sub>= 634 mg a.s./kg d.w.soil
ER<sub>20</sub>= 855 mg a.s./kg d.w.soil |
| **Hypoaspis aculeifer** | BAS 830 01 H      | Incorporated/5 % peat                          | Chronic, 28 d | Reproduction            | NOEC = 1000 mg prep./kg d.w.soil<sup>2</sup>
(corresponding to 293 mg dimethenamid-P/kg dry soil and 147 mg quinmerac/kg dry soil) |
| **Hypoaspis aculeifer** | M 23               | Incorporated/5 % peat                          | Chronic, 14 d | Mortality, Reproduction | NOEC≥ 200 mg as/kg d.w.soil
NOEC = 140 mg a.s./kg d.w.soil
ER<sub>10</sub>= 91.7 mg as/kg d.w.soil
ER<sub>20</sub>= 151 mg as/kg d.w.soil |
| Test organism   | Test substance | Application method of test a.s./OM\(^1\) | Time scale | End point                        | Toxicity                                                                                                                                 |
|-----------------|----------------|-------------------------------------------|------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| *Hypoaspis* aculeifer | M 27           | Incorporated/5 % peat                     | Chronic, 14 d | Growth, reproduction, behaviour | NOEC = 200 mg a.s./kg d.w.soil\(^2\) ER\(_{10}\) = 185 mg as/kg d.w.soil ER\(_{20}\) = 285 mg as/kg d.w.soil |
| *Hypoaspis* aculeifer | M 31           | Incorporated/5 % peat                     | Chronic, 14 d | Growth, reproduction, behaviour | NOEC = 500 mg a.s./kg d.w.soil\(^2\) ER\(_{10}\) = 86 mg as/kg d.w.soil ER\(_{20}\) = 801 mg as/kg d.w.soil |

\(^1\) To indicate whether the test substance was oversprayed/to indicate the organic content of the test soil (e.g. 5 % or 10 %).

\(^2\) Highest concentration tested.

### Higher tier testing (e.g. modelling or field studies) Not required

| Nitrogen transformation | M 23 (metabolite of Dimethenamid-P) | 28 d aerob | < 25 % effect at day 28 at 1.0 mg a.s./kg d.w.soil |
|-------------------------|-------------------------------------|------------|--------------------------------------------------|
| Nitrogen transformation | M 27 (metabolite of Dimethenamid-P) | 28 d aerob | < 25 % effect at day 28 at 1.0 mg a.s./kg d.w.soil |
| Nitrogen transformation | M 31 (metabolite of Dimethenamid-P) | 28 d aerob | < 25 % effect at day 28 at 1.0 mg a.s./kg d.w.soil |
| Nitrogen transformation | BAS 656 07 H                         | 28 d       | < 25 % effect at day 28 at 7.0 L prep./ha (equivalent to 4.93 kg a.s./ha) |
| Nitrogen transformation | BAS 830 01 H                         | 28 d Aerob | < 25 % difference from the control at 22.7 mg prep./kg dry soil, equivalent to 15.0 L prep./ha. |
| Carbon transformation  | M 23 (metabolite of Dimethenamid-P)  | 28 d aerob | < 25 % effect at day 28 at 1.0 mg a.s./kg d.w.soil |
| Carbon transformation  | M 27 (metabolite of Dimethenamid-P)  | 28 d aerob | < 25 % effect at day 28 at 1.0 mg a.s./kg d.w.soil |
| Carbon transformation  | M 31 (metabolite of Dimethenamid-P)  | 28 d aerob | < 25 % effect at day 28 at 1.0 mg a.s./kg d.w.soil |
Carbon transformation

| Test organism | Test substance | Time scale | Soil PEC | TER | Trigger |
|---------------|----------------|------------|----------|-----|---------|
| Eisenia fetida| Dimethenamid-P  | Chronic    | 1.152    | 20  | 5       |
| Eisenia fetida| BAS 656 012 H   | Chronic    | 1.152    | 17  | 5       |
| Eisenia fetida| M 23            | Chronic    | 0.1533*  | 54  | 5       |
| Eisenia fetida| M 27            | Chronic    | 0.179    | 59  | 5       |
| Eisenia fetida| M 31            | Chronic    | 0.1534*  | 652 | 5       |

Other soil macroorganisms

| Test organism | Test substance | Time scale | Soil PEC | TER | Trigger |
|---------------|----------------|------------|----------|-----|---------|
| Folsomia candida| Dimethenamid-P | Chronic    | 1.152    | 7   | 5       |
| Hypoaspis aculeifer| Dimethenamid-P | Chronic    | 1.152    | 434 | 5       |
| Folsomia candida| M 23            | Chronic    | 0.1533*  | 1304| 5       |
| Hypoaspis aculeifer| M 23            | Chronic    | 0.1533*  | 652 | 5       |
| Folsomia candida| M 27            | Chronic    | 0.179    | 1117| 5       |
| Hypoaspis aculeifer| M 27            | Chronic    | 0.179    | 1117| 5       |
| Folsomia candida| M 31            | Chronic    | 0.1534*  | 1303| 5       |
| Hypoaspis aculeifer| M 31            | Chronic    | 0.1534*  | 3259| 5       |
| Folsomia candida| BAS 656 12 H    | Chronic    | 1.2 L/ha (corresponding to 1.152 mg as/kg dw) | 11  | 5       |

* PECsoil accu

Toxicity/exposure ratios for soil organisms

BAS 656 12 H at 1.2 L prep./ha (equivalent to 864 g a.s./ha) g a.s./ha [1x; includes splitting in 2 or 3 applications 5 - 10 day interval in sugar beet]

| Test organism | Test substance | Time scale | Soil PEC | TER | Trigger |
|---------------|----------------|------------|----------|-----|---------|
| Eisenia fetida| Dimethenamid-P | Chronic    | 0.667    | 38  | 5       |
| Eisenia fetida| BAS 830 01 H   | Chronic    | 1.5 L prep./ha (corresponding to 2.27 mg prep./kg dw) | 39  | 5       |
| Eisenia fetida| M 23           | Chronic    | 0.0884 * | 94  | 5       |
| Eisenia fetida| M 27           | Chronic    | 0.104    | 102 | 5       |
| Eisenia fetida| M 31           | Chronic    | 0.0902 * | 1109| 5       |

BAS 830 01 H in winter oilseed rape at 1.5 L prep./ha (500 g dimethenamid-P/ha + 250 g Quinmerac/ha [1x]

| Test organism | Test substance | Time scale | Soil PEC | TER | Trigger |
|---------------|----------------|------------|----------|-----|---------|
| Eisenia fetida| Dimethenamid-P | Chronic    | 0.667    | 38  | 5       |
| Eisenia fetida| BAS 830 01 H   | Chronic    | 1.5 L prep./ha (corresponding to 2.27 mg prep./kg dw) | 39  | 5       |
| Eisenia fetida| M 23           | Chronic    | 0.0884 * | 94  | 5       |
| Eisenia fetida| M 27           | Chronic    | 0.104    | 102 | 5       |
| Eisenia fetida| M 31           | Chronic    | 0.0902 * | 1109| 5       |
| Test organism       | Test substance | Time scale | Soil PEC | TER | Trigger |
|--------------------|----------------|------------|----------|-----|---------|
| Other soil macroorganisms |
| *Folsomia candida* | Dimethenamid-P | Chronic    | 0.667    | 19  | 5       |
| *Hypoaspis aculeifer* | Dimethenamid-P | Chronic    | 0.667    | 750 | 5       |
| *Folsomia candida* | M 23           | Chronic    | 0.0884 * | 2262| 5       |
| *Hypoaspis aculeifer* | M 23           | Chronic    | 0.0884 * | 1131| 5       |
| *Folsomia candida* | M 27           | Chronic    | 0.104    | 1923| 5       |
| *Hypoaspis aculeifer* | M 27           | Chronic    | 0.104    | 1923| 5       |
| *Folsomia candida* | M 31           | Chronic    | 0.0902 * | 2271| 5       |
| *Hypoaspis aculeifer* | M 31           | Chronic    | 0.0902 * | 5543| 5       |
| *Folsomia candida* | BAS 830 01 H   | Chronic    | 1.5 L prep./ha (corresponding to 2.27 mg prep./kg dw) | 33 | 5       |
| *Hypoaspis aculeifer* | BAS 830 01 H   | Chronic    | 1.5 L prep./ha (corresponding to 2.27 mg prep./kg dw) | 440 | 5       |

* PECsoil accu
Effects on terrestrial non target higher plants (Regulation (EU) N° 283/2013, Annex Part A, point 8.6 and Regulation (EU) N° 284/2013 Annex Part A, point 10.6)

Screening data

Not required for herbicides as ER$_{50}$ tests should be provided.

Screening for herbicidal efficacy:
M 23 and M 27 pre-and post emergence: no herbicidal effects up to 1000 g metabolite/ha (visual observation)
M 31 pre emergence: no herbicidal effects up to 1000 g metabolite/ha (visual observation)
Groundwater metabolites M656PH023, M656PH030, M656PH031, M656PH032, M656PH043, M656PH045, M656PH047, M656PH054, M656H055, the Na-salt of M656PH027 and the ethylester derivative for M656PH062 pre- and post emergence: less herbicidal effects than parent

Laboratory dose response tests

| Species            | Test substance | ER$_{50}$ (mL prep./ha)$^2$ vegetative vigour | ER$_{30}$ (mL prep./ha)$^2$ emergence | Exposure$^1$ (mL prep./ha)$^2$ | TER  | Trigger |
|--------------------|----------------|----------------------------------------------|--------------------------------------|---------------------------------|------|---------|
| Lactuca sativa     | BAS 656 12 H   | Data gap                                     | 28.6                                 | 33.24 (1 m)                     | 0.86 | 5       |
|                    |                |                                              |                                      | 6.84 (5 m)                      | 4.2  |         |
|                    |                |                                              |                                      | 3.48 (10 m)                     | 8.2  |         |
|                    |                |                                              |                                      | 3.32 (1 m + 90 % drift reduction)| 8.6  |         |
| Lolium multiflorum | BAS 830 01 H   | 527 (biomass) 188 (phytotoxicity)            | > 94                                 | 41.55 (1 m)                     | 2.3  | 5       |
|                    |                |                                              |                                      | 8.55 (5 m)                      | 11   |         |
|                    |                |                                              |                                      | 4.155 (1 m + 75 % drift reduction)| 9    |         |

Extended laboratory studies: Not required
Semi-field and field test: Not required

1 based on Ganzelmeier drift data.
2 for preparations indicate whether dose is expressed in units of a.s. or preparation.
Effects on biological methods for sewage treatment (Regulation (EU) N° 283/2013, Annex Part A, point 8.8)

| Test type/organism | end point |
|-------------------|-----------|
| Activated sludge  | 400 mg a.s./L |

Monitoring data (Regulation (EU) N° 283/2013, Annex Part A, point 8.9 and Regulation (EU) N° 284/2013, Annex Part A, point 10.8)

Available monitoring data concerning adverse effect of the a.s.
No data submitted.

Available monitoring data concerning effect of the PPP.
No data submitted.

Definition of the residue for monitoring (Regulation (EU) N° 283/2013, Annex Part A, point 7.4.2) Ecotoxicologically relevant compounds

| Compartment  | Parent (dimethenamid-P)* |
|--------------|--------------------------|
| soil         | Parent (dimethenamid-P)* |
| water        | Parent (dimethenamid-P)* |
| sediment     | Parent (dimethenamid-P)* |
| groundwater  | Parent (dimethenamid-P)* |

1 metabolites are considered relevant when, based on the risk assessment, they pose a risk comparable or higher than the parent

* in the absence of an enantioselective method measured as as sum of stereoisomers of dimethenamid.
Classification and labelling with regard to ecotoxicological data (Regulation (EU) No 283/2013, Annex Part A, Section 10)

| Substance | dimethenamid-P |
|-----------|----------------|
| Harmonised classification according to Regulation (EC) No 1272/2008 and its Adaptations to Technical Process [Table 3.1 of Annex VI of Regulation (EC) No 1272/2008 as amended]⁹: | |
| **Category:** | Aquatic Acute 1, H400; Aquatic Chronic 1, H410 (Very toxic to aquatic life with long lasting effects) |
| **M-factor:** | Acute: 10; chronic: 10 |
| **Symbol:** | GHS09 |
| based on the EC₅₀ (14 d) of 0.014 mg/L and NOEC (14 d) of 0.0037 mg/L for *Lemna gibba*; | |
| **Peer review proposal**¹⁰ for harmonised classification according to Regulation (EC) No 1272/2008: | |

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⁹ Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. OJ L 353, 31.12.2008, 1-1355.

¹⁰ It should be noted that harmonised classification and labelling is formally proposed and decided in accordance with Regulation (EC) No 1272/2008.