Supplementary Materials: Application of Box–Behnken Design to Investigate the Effect of Process Parameters on the Microparticle Production of Ethenzamide through the Rapid Expansion of the Supercritical Solution Process

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Table S1. Operating conditions and results of RESS processing of ethenzamide.

| Exp. no. | T_ext (°C) | P_ext (bar) | T_pre (°C) | T_post (°C) | Mean size (μm) | SD (μm) |
|---------|------------|-------------|------------|-------------|----------------|---------|
| Unprocessed | ---- | ---- | ---- | ---- | 15.35 | 4.70 |
| S1 | 45 | 220 | 130 | 10 | 3.67 | 1.23 |
| S2 | 35 | 220 | 130 | 10 | 3.86 | 1.50 |
| S3 | 55 | 220 | 130 | 10 | 3.23 | 1.09 |
| S4 | 45 | 200 | 130 | 10 | 3.32 | 1.25 |
| S5 | 45 | 240 | 130 | 10 | 3.42 | 1.21 |
| S6 | 45 | 220 | 90 | 10 | 6.22 | 2.08 |
| S7 | 45 | 220 | 110 | 10 | 5.10 | 2.07 |
| S8 | 45 | 220 | 150 | 10 | 3.33 | 1.29 |
| S9 | 45 | 220 | 170 | 10 | 2.29 | 0.96 |
| S10 | 45 | 220 | 130 | 0 | 3.36 | 1.18 |
| S11 | 45 | 220 | 130 | 20 | 4.12 | 1.45 |
| S12 | 45 | 220 | 130 | 30 | 2.77 | 1.09 |
| S13 | 45 | 220 | 130 | 40 | 2.06 | 0.76 |

(a) SD: Standard deviation of the particle size distribution.
**Figure S1.** Effects of (a) extraction temperature (b) extraction pressure (c) pre-expansion temperature, and (d) post-expansion temperature on the mean size of RESS-processed ethenzamide.

**Figure S2.** Particle size distribution of (a) unprocessed ethenzamide and (b) RESS-processed ethenzamide from Experiment 12.
Figure S3. PXRD patterns of ethenzamide from CCDC database (CCDC number: 760137).