

## PFOS Ecotoxicological Testing Results

### Comparison of Effect Concentrations Calculated Using Different Sample Purity

All values calculated as mean measured concentrations, except where \* (nominal).

| Parameter                                                          | Result (90.49% purity) | Result (86.9% purity) | Units |
|--------------------------------------------------------------------|------------------------|-----------------------|-------|
| <b>Wastewater bacteria (OECD 209)</b>                              |                        |                       |       |
| 3-hr EC <sub>50</sub>                                              | > 905*                 | > 870*                | mg/L  |
| Inhibition at highest concentration tested (905 or 870 mg/L) = 39% |                        |                       |       |
| <b><i>Selenastrum capricornutum</i> ( freshwater green algae)</b>  |                        |                       |       |
| 96-hr NOEC (growth rate)                                           | 44                     | 42                    | mg/L  |
| 96-hr ErC <sub>10</sub> (95% Confidence Interval)                  | 59 (54 - 63)           | 57 (52 - 60)          | mg/L  |
| 96-hr ErC <sub>50</sub> (95% Confidence Interval)                  | 126 (115 - 138)        | 121 (110 - 133)       | mg/L  |
| <b><i>Daphnia magna</i> (freshwater water flea)</b>                |                        |                       |       |
| Acute 48-hr NOEC                                                   | 33                     | 32                    | mg/L  |
| Acute 48-hr EC <sub>10</sub> (95% Confidence Interval)             | 53 (<11 - >91)         | 51 (<11 - >87)        | mg/L  |
| Acute 48-hr EC <sub>50</sub> (95% Confidence Interval)             | 61 (33 - 91)           | 59 (32 - 87)          | mg/L  |
| Acute 48-hr EC <sub>90</sub> (95% Confidence Interval)             | 63 (<11 - >91)         | 60 (<11 - >87)        | mg/L  |
| 21-day Semi-Static Life-cycle Test NOEC                            | 12                     | 12                    | mg/L  |
| 21-day Semi-Static Life-cycle Test LOEC                            | 24                     | 23                    | mg/L  |
| <b><i>Mysidopsis bahia</i> (marine shrimp)</b>                     |                        |                       |       |
| Acute 96-hr NOEC                                                   | 1.1                    | 1.1                   | mg/L  |
| Acute 96-hr EC <sub>50</sub> (95% Confidence Interval)             | 3.6 (3.0 - 4.6)        | 3.5 (2.9 - 4.4)       | mg/L  |
| 35-day Flow-through Life Cycle Test NOEC                           | 0.25                   | 0.24                  | mg/L  |
| 35-day Flow-through Life Cycle Test LOEC                           | 0.55                   | 0.53                  | mg/L  |
| <b><i>Unio complanatus</i> (freshwater mussel)</b>                 |                        |                       |       |
| Acute 96-hour NOEC                                                 | 20                     | 19                    | mg/L  |
| Acute 96-hour LC <sub>50</sub> (95% Confidence Interval)           | 59 (51 - 68)           | 57 (49 - 65)          | mg/L  |
| <b><i>Crassostrea virginica</i> Shell Deposition (oyster)</b>      |                        |                       |       |
| Acute 96-hour NOEC                                                 | 1.9                    | 1.8                   | mg/L  |
| Acute 96-hour EC <sub>50</sub> (95% Confidence Interval)           | >3.0                   | >2.9                  | mg/L  |
| Solubility limits precluded obtaining EC <sub>50</sub> value.      |                        |                       |       |
| Inhibition at highest concentration tested = 28%                   |                        |                       |       |
| <b><i>Pimephales promelas</i> (fathead minnow)</b>                 |                        |                       |       |
| Acute 96-hr NOEC                                                   | 3.3                    | 3.2                   | mg/L  |
| Acute 96-hr LC <sub>50</sub> (95% Confidence Interval)             | 9.5 (8.0 - 11)         | 9.1 (7.7 - 11)        | mg/L  |
| 47-days Early Life-Stage Toxicity Test NOEC                        | 0.3                    | 0.29                  | mg/L  |
| 47-days Early Life-Stage Toxicity Test LOEC                        | 0.6                    | 0.58                  | mg/L  |
| <b>Avian Dietary Toxicity Tests</b>                                |                        |                       |       |
| Acute Mallard Duck LC <sub>50</sub> (95% Confidence Interval)      | 628 (448 - 958)        | 603 (430 - 919)       | mg/kg |
| Acute Mallard Duck No mortality concentration                      | 146                    | 141                   | mg/kg |
| Acute Mallard Duck NOEC (weight loss)                              | 37                     | 35                    | mg/kg |
| Acute Bobwhite Quail LC <sub>50</sub> (95% Confidence Interval)    | 220 (164 - 289)        | 212 (158 - 278)       | mg/kg |
| Acute Bobwhite Quail no mortality concentration                    | 73                     | 70                    | mg/kg |
| Acute Bobwhite Quail NOEC                                          | 73                     | 70                    | mg/kg |
| <b>Other Affected Studies</b>                                      |                        |                       |       |
| Water Solubility (Pure water, GLP study)                           | 519                    | 498                   | mg/L  |
| Water solubility (freshwater, non-GLP)                             | 371                    | 326                   | mg/L  |
| Water solubility (freshwater algal medium, non-GLP)                | 430                    | 378                   | mg/L  |
| Water solubility (saltwater, non-GLP)                              | 24.9                   | 21.8                  | mg/L  |