

WATER SOLUBILITY IN PURE WATER

TEST SUBSTANCE

Identity: Perfluorooctanesulfonyl fluoride; may also be referred to as POSF, or FX-8. (1-Octanesulfonyl fluoride, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, CAS # 307-35-7).

Remarks: The test substance is a clear liquid. Sample obtained from Aldrich, Lot 12517LR. Purity described as 98%.

METHOD

Method: Based on OPPTS 830.7840.

GLP (Y/N): No

Year completed: 2001

Water: ASTM Type I water, Millipore

Remarks: This screening test consisted of adding various amounts of test substance to water in volumetric flasks. The flasks were sealed and shaken and allowed to stand at 22 - 24°C. After equilibration, flasks were visually inspected for the presence of test substance (oily droplets on the bottom). Three trials were made:

10 µL POSF in 4.203 L water (4.33 mg/L), equilibrate 24-hours

5 µL POSF in 6.205 L water (1.47 mg/L), equilibrate 24-hours

1 µL POSF in 6.205 L water (0.294 mg/L), equilibrate 5-days

RESULTS

After all three trials, droplets of POSF were still visible on the bottom of the flasks.

Solubility in ASTM Type I Water: <0.294 mg/L at 22 - 24°C

CONCLUSIONS

The solubility of the test substance in pure water was determined to be < 0.294 mg/L by visual observation.

Submitter: 3M Company, Environmental Laboratory, P.O. Box 33331, St. Paul, Minnesota, 55133

DATA QUALITY

Reliability: Klimisch ranking 2. This study was conducted as a screening study.

REFERENCES

Study conducted at the 3M Company, St Paul, MN, 2001, Environmental Laboratory Project Number EO1-0858.

OTHER

Last changed: 6/22/01