

ACUTE TOXICITY TO FISH (MUMMICHOG)

TEST SUBSTANCE

Identity: A mixture containing perfluorooctanesulfonate, which may also be referred to as PFOS, FC-95, or as a component of FC-780. (1-Octanesulfonic acid) (CAS # 2795-39-3).

Remarks: The 3M production lot number was not available. The test sample is FC-780. Current information indicates it is a mixture of 0.5% PFOS, 14% diethylene glycol butyl ether, 76.95% water, 5.5% urea, 1.0% Sultone foamer, 1.15% sodium octyl sulfate, 0.8% polyoxyethylene monoethylphenyl ether, 0.05% sodium lauryl sulfate, and 0.05% tolyltriazole.

The following summary applies to a mixture with incompletely characterized concentrations of impurities. Data may not accurately reflect the toxicity of the fluorochemical component of the test sample.

METHOD:

Method: Not given

Type: Acute static

GLP: No

Year completed: Not given.

Species: *Fundulus heteroclitus*

Supplier: Not given.

Analytical monitoring: Not given.

Exposure period: 96-hours

Test organism age: Not given.

Statistical methods: Not given.

Test conditions:

Dilution water: Not given.

Dilution water chemistry: Not given.

Lighting: Not given.

Stock and test solution preparation: Not given.

Exposure vessels: Not given.

Number of replicates: Not given.

Number of daphnids per replicate: Not given.

Number of concentrations: Not given.

Water chemistry during the study: Not given.

RESULTS

Nominal concentrations: Not given.

Element values: 96-hour LC50 = >5000 mg/L

Element values based on nominal concentrations.

Remarks: Testing was conducted on a mixture as described in the Test Substance Remarks field. The values reported apply to that mixture and not the fluorochemical proportion alone.

CONCLUSIONS

The 96-hour LC₅₀ for FC-780 was >5000 mg/L.

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

DATA QUALITY

Reliability: Klimisch ranking = 4. Values are from a summary sheet only – raw data not found. Study lacks description and records of the method followed. There is no characterization of the test substance purity and the study lacks analytical confirmation of the amount of fluorochemical proportion in the solution.

REFERENCES

Test was conducted by the Naval Research Laboratory, Fire Suppression Section, Washington, D.C., 1977.

OTHER

Last changed: 6/26/00.

Product Environmental Data



Environmental Laboratory
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COMMERCIAL CHEMICALS DIVISION

3M BRAND COMMERCIAL GRADE AFFF 6% CONCENTRATE FC-780

DESCRIPTION: Fire extinguishing agent.

APPEARANCE: Clear amber liquid.

COMPOSITION:

	<u>Percent by Weight</u>
Diethylene glycol monobutyl ether (Butyl Carbitol®)	14
Water	77
Fluoroaliphatic surfactants	<5
Organic surfactants	<5
Urea	6

USAGE: FC-780 is employed at a 6% level (e.g., 94 parts water to 6 parts FC-780) to extinguish fires involving liquid fuels and other liquid organic compounds.

AQUATIC TOXICITY: *

<u>Test Organism</u>	<u>96-Hr. LC₅₀</u>
	<u>FC-780</u>
Common Mummichog or Kille Fish (<u>Fundulus heteroclitus</u>)	>5,000 mg/l

BIODEGRADATION: *

Chemical Oxygen Demand (COD)	0.32 g/g
Ratio of Twenty-Day Biochemical Oxygen Demand to Chemical Oxygen Demand (BOD ₂₀ /COD)	0.98

* As reported by the Naval Research Laboratory, Fire Suppression Section, Washington, DC.

Date: 6/11/82 (Supersedes 1/8/80)

These data are intended for the use of a person qualified to evaluate environmental data.

All statements, technical information and recommendations contained herein are of a general nature and are based on laboratory tests or literature information we believe to be reliable, but the accuracy, completeness or applicability to particular circumstances is not guaranteed. 3M makes no representation that the customer's use and disposal of the product will comply with all applicable environmental laws, regulations and rules.