

BIODEGRADATION (BOD/COD)

TEST SUBSTANCE

Identity: A mixture containing perfluorooctanesulfonate, which may also be referred to as PFOS, FC-95, or as a component of FC-602. (1-Octanesulfonic acid) (CAS # 2795-39-3).

Remarks: The 3M production lot number was 501. The test sample is FC-602. Current information indicates it is a mixture of 1% PFOS, 12% diethylene glycol butyl ether, 61.05% water, 20% ethylene glycol, 2% Sultone foamer, 1% sodium octyl sulfate, 1% sodium decyl sulfate, 1% magnesium sulfate, 0.7% xanthan gum, 0.1% starch, 0.1% n-(3-chloroallyl)hexaminium chloride, and 0.05% tolytriazole.

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

METHOD:

Method: Standard Methods, 507 for BOD and 508 for COD.

Type: Aerobic

GLP: No

Year completed: 1988

Contact time: 20 days

Innoculum: Source not given.

RESULTS

Chemical Oxygen Demand (COD):	552,000 mg/kg
	524,000 mg/kg (replicate)
Biochemical Oxygen Demand (BOD):	
5-Day:	254,000 mg/kg
10-Day:	398,000 mg/kg
20-Day:	422,000 mg/kg

CONCLUSIONS

No conclusions given.

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

DATA QUALITY

Reliability: Klimisch ranking 2. Testing meets criteria for quality testing. However, the seed source was not indicated. There is a lack of characterization of sample purity and the study lacks analytical confirmation of the amount of fluorochemical proportion in the test solutions.

REFERENCES

The studies were conducted by Pace Laboratories, Inc., Minneapolis, MN, at the request of the 3M Company, Lab Request number F1151, 1988.

OTHER

Last changed: 6/26/00

March 04, 1988

Request Copy F1151

Mr. Wade Schell
3M Environmental Laboratory
935 Bush Avenue
Bldg. 2-3E
St. Paul, MN 55133

Dear Mr. Schell:

Enclosed is the report of laboratory analyses for samples received 02/02/88.

If you have any questions concerning this report, please feel free to contact Tom Halverson or me.

Sincerely,

Mary J. Mackey

Roger C. Splinter, Ph.D. *for*
Director, Laboratory Services

Enclosures

3M Environmental Laboratory
935 Bush Avenue
Bldg. 2-3E
St. Paul, MN 55133

March 04, 1988
PACE Project Number: 880202509

Attn: Mr. Wade Schell

F1151

Date Sample(s) Collected: By Client
Date Sample(s) Received: 02/02/88

PACE Sample Number:

024420 024420

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>F1151-1</u>	<u>F1151-2</u>
Biochemical Oxygen Demand, Carb 5 Day(1)	mg/kg	12000	254000	-
Biochemical Oxygen Demand, Carb 10 Day(1)	mg/kg	12000	398000	-
Biochemical Oxygen Demand, Carb 20 Day(1)	mg/kg	12000	422000	-
Chemical Oxygen Demand(2)	mg/kg	1900	552000	524000

MDL Method Detection Limit

- (1) Analysis for biochemical oxygen demand was performed in accordance with Standard Methods #507
- (2) Analysis for chemical oxygen demand was performed in accordance with Standard Methods #508.

The data contained in this report were obtained using EPA or other approved methodologies. All analyses were performed by me or under my direct supervision.


Thomas L. Halverson
Inorganic Chemistry Manager