

BIODEGRADATION (BOD/COD/TOC)

TEST SUBSTANCE

Identity: Perfluorooctanesulfonylamido(ethyl)acetate; may also be referred to as PFOSAA, FC-128 or as the major component of FC-127 or FC-129. (Glycine, N-ethyl-N-[(heptadecafluorooctyl)sulfonyl]-, potassium salt, CAS # 2991-51-7)

Remarks: The test sample is FC-128. Current information indicates it is a mixture of 86% test substance and 14% C₄-C₇ fluoroalkyl carboxylate compounds. 3M production lot number 751.

METHOD:

Method: Not noted.
Type: Aerobic
GLP: No
Year completed: 1977
Contact time: NA
Innoculum: Not noted

RESULTS

BOD20: <7600 mg/kg
COD: 140,000 mg/kg
TOC: 162,000 mg/kg

Remarks: The 5-, 7-, 11-, and 14-day BOD values could not be calculated because of insufficient dissolved oxygen depletion.

CONCLUSIONS

No reliable conclusions can be derived from this study.

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

DATA QUALITY

Reliability: Klimisch ranking 4. Summary was created using only a listing of test values. The original study procedure and raw data were not found.

REFERENCES

The COD and BOD studies were conducted by the 3M Company, Environmental Laboratory, St. Paul, MN, Lab Request number 3844, 7/8/77.

The TOC study was conducted by ARRO Laboratories at the request of 3M, Lab Request number 3849, 1977

OTHER

Last changed: 5/16/00

LAB REQUEST NO. 3844

PRODUCT:

PHYSICAL & CHEMICAL PROPERTIES

Other

GC

Other

Specify Organism and Method:

Fat head - 96 lb.

GC

Bioassay

Other

Bioaccumulation

Persistence

Degradation Products

* ALL RESULTS EXPRESSED AS mg/kg - EXCEPT pH

FILE

SEC.

DATE

SHEET

ENVIRONMENTAL LAB
DATA SHEET

RE: LR. NOS. 3844 AND 3849

			P.H.	C.O.D.	T.O.C.	HEX. CHROM.	T. CHROMIUM	ULTIMATE BOD	BOD3	BOD4	BOD5	BOD7	BOD11	BOD14	BOD20
1	FC 43	LOT 253		< 180	‡										
2	FC 95	LOT 583		< 4,000	78,000				*	-	*	*	*	*	
3	FC 98	LOT 315		< 4,000	119,000				*	-	*	*	*	*	< 7,800
4	FC 128	LOT 751		140,000	162,000				*	-	*	*	*	*	< 3,800
5	FC 143	LOT 261		< 4,000	186,000 238,000				*	-	*	*	*	*	< 7,600
6	FC 171	LOT 1		600,000	206,000				-	*	*	*	*	< 10,200	-
7	FC 207	LOT 2		420,000	91,000				-	*	*	*	28,000	36,000	53,000
8	FC 207B	LOT 2		420,000	195,000				-	72,000	120,000	160,000	300,000	340,000	320,000
9	FC 214-30	LOT 508		350,000 370,000	182,000				-	66,000	88,000	140,000	260,000	350,000	340,000
10	FC 217	LOT 517		280,000	84,000			140,000	-	140,000	180,000	160,000	170,000	160,000	
11	FC 218	LOT 687	3.3	500,000	194,000			-	95,000	130,000	120,000	130,000	140,000	120,000	
12	FC 232	LOT 539	5.5	460,000	171,000			110,000	-	110,000	120,000	120,000	110,000	100,000	
13	FC 321	LOT 572	7.9	290,000	‡		‡	110,000	-	130,000	150,000	140,000	130,000	120,000	
14	FC 379	LOT 525		280,000	240,000			34,000	-	84,000	110,000	120,000	120,000	86,000	
15	FC 387	LOT 100		510,000	‡		‡								
16	FC 430	LOT 24		1,100,000 1,200,000	456,000			*	-	*	*	*	*	*	
17	FC 431	LOT 8		1,100,000	338,000			370,000	-	405,000	431,000	446,000	445,000	480,000	< 37,000
18	FC 504	LOT 1		990,000	‡		‡								
19	FC 650	LOT 2		730,000	150,000			*	-	*	*	*	*	*	28,000
20	FC 805	LOT 540	< 0.0	1,100,000	203,000	< 10	50,000	*	-	330,000	790,000	740,000	720,000	740,000	
21	FC 807	LOT 900		420,000	84,000			*	-	*	140,000	250,000	210,000	170,000	
22	FC 859	LOT 715		130,000	‡		‡								
23	FC 3019N			160,000	‡		‡								
24	FM 3422	LOT 716		260,000	‡		‡								
25															
26	FC 77 (HOLDING)														
27															
28	FC 214-30	SAMPLES													
29	FC 218	FOR													
30	FC 232	HYDROLYSIS													
31	FC 321	STUDIES													
32	FC 805														
33	FC 807														
34															
35															

NOTES: - SOLIDS FORMED DURING COD TEST AFTER (1) HOUR OF REFLUXING OF SAMPLES #13, #14 AND #23.

- TOC ANALYSES WERE PERFORMED BY ARRO LABORATORIES.

* INDICATES AN INSUFFICIENT DISSOLVED OXYGEN DEPLETION NECESSARY TO CALCULATE RELIABLE BOD VALUES.

‡ INDICATES THE SAMPLE IS WATER INSOLUBLE - TESTS NOT PERFORMED.