

ACTIVATED SLUDGE RESPIRATION INHIBITION

TEST SUBSTANCE

Identity: Perfluorooctanoic acid, ammonium salt; may also be referred to as PFOA ammonium salt, Ammonium perfluorooctanoate, PFO, FC-116, FC-126, FC-169, or FC-143. (Octanoic acid, pentadecafluoro-, ammonium salt, CAS # 3825-26-1)

Remarks: The 3M production lot number was 37. The test sample is FC-143. It's purity was not sufficiently characterized, though current information indicates it is a mixture of 96.5 - 100% test substance and 0 - 3.5% C₆, C₇, and C₉ perfluoro analogue compounds..

METHOD:

Methods: Protocol Reference EAR, 11/8/79.

Test type: Not noted.

GLP: No

Year Completed: 1980

Test organism source: Activated Sludge mixed liquor from Metro Wastewater Treatment Plant, St. Paul, Minnesota

RESULTS

Nominal concentrations: Bk control, 1000 mg/L

Element values: No acute inhibitory effect on activated sludge respiration rate at 1000 mg/L with a contact time of 7 minutes.

Element value based on nominal concentrations.

CONCLUSIONS

Limited contact time estimates that ammonium perfluorooctanoate is not expected to inhibit the activity of activated sludge.

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

DATA QUALITY

Reliability: Klimisch ranking 3. Testing lacks record of methodology used. The method was not an agency approved method. There is a lack of characterization of the test sample and test solutions not analyzed for test substance concentrations.

REFERENCES

This study was conducted by the 3M Company, Environmental Laboratory,
St. Paul, MN, Lab Request number 5625S.

OTHER

Last changed: 5/24/00

003788

DISSOLVED OXYGEN CONCENTRATION - mg/l

ENVIRONMENTAL LABORATORY SUMMARY SHEET
TEST: Acute Toxicity of a Compound to Activated Sludge
Mixed Liquor. (EAR 11/08/79).

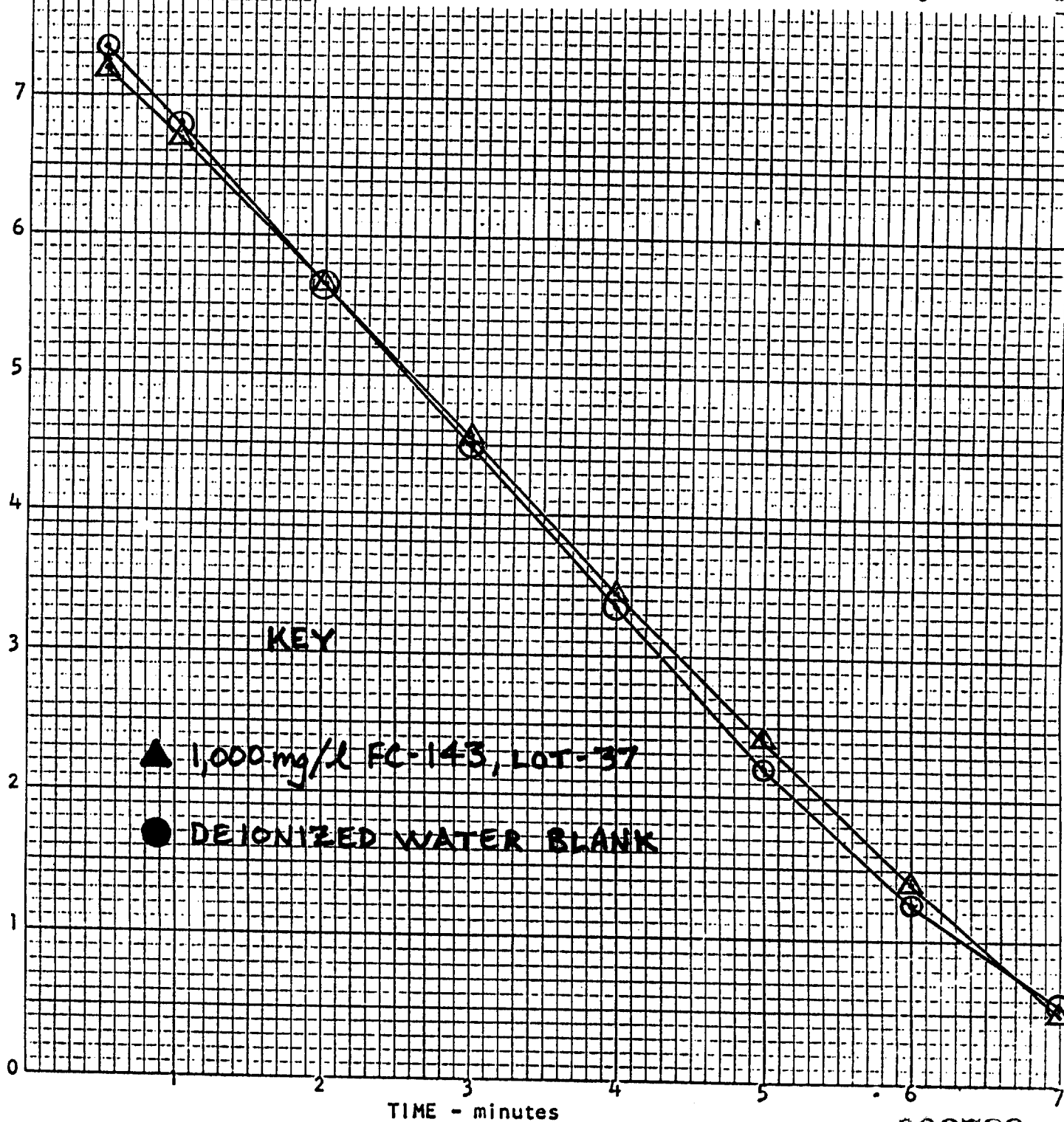
SAMPLE DESCRIPT.: FC-143, LOT-37

ANALYST: W. A. SCHEIL

DATE ANALYZED: 6-04-80

LAB REQ. NO.: 5625 S

W.A. Scheil
6-05-80



003789

ENVIRONMENTAL ENGR. LAB - WORK SHEET

SAMPLE DESCRIPTION

FC-143, LOT-37

Date: 6-04-80Analyst: W.A. Schind

Hrs.: _____

ACUTE TOXICITY OF A COMPOUND TO ACTIVATED SLUDGESLUDGE - MIXED LIQUOR FROM MPLS - STP METRO
SEWAGE PLANT (PIGS EYE)DATE OF SLUDGE COLLECTION: 6-04-80STOCK SOLUTION OF SAMPLE: 0.600g FC-143 diluted to 100ml
with D.I. H₂O W.A. Schind 6-04-80

TIME		CONCENTRATION OF SAMPLE IN BOD BOTTLE									
MIN.	SEC.	D.I. H ₂ O BLANK	1,000 mg/l								
	30	7.35	7.20								
1	-	6.80	6.70								
2	-	5.65	5.65								
3	-	4.50	4.55								
4	-	3.35 3.45	3.45								
5	-	2.20	2.40								
6	-	1.25	1.40								
7	-	0.55	0.50								
8	-										
9	-										
10	-										
11	-										
12	-										

Reviewed by: _____

003790