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October 15, 1992

Document Processing Center (TS-790)
Office of Pollution Prevention and Toxics
Environmental Protection Agency
401 M Street., S.W.
Washington, D.C. 20460
Attn: Section 8(e) Coordinator (CAP Agreement)

(A)

Dear Coordinator:

SECAP-0025

On behalf of the Regulatee and pursuant to Unit II B.1.b. and Unit II C of the 6/28/91 CAP Agreement, E.I. Du Pont de Nemours and Co. hereby submits (*in triplicate*) the attached studies. Submission of this information is voluntary and is occasioned by unilateral changes in EPA's standard as to what EPA now considers as reportable information. Regulatee's submission of information is made solely in response to the new EPA §8(e) reporting standards and is not an admission: (1) of TSCA violation or liability; (2) that Regulatee's activities with the study compounds reasonably support a conclusion of substantial health or environmental risk or (3) that the studies themselves reasonably support a conclusion of substantial health or environmental risk.

The "Reporting Guide" creates new TSCA 8(e) reporting criteria which were not previously announced by EPA in its 1978 Statement of Interpretation and Enforcement Policy, 43 Fed Reg 11110 (March 16, 1978). The "Reporting Guide states criteria which expands upon and conflicts with the 1978 Statement of Interpretation. Absent amendment of the Statement of Interpretation, the informal issuance of the "Reporting Guide" raises significant due processes issues and clouds the appropriate reporting standard by which regulated persons can assure TSCA Section 8(e) compliance.

For Regulatee,

Mark H. Christman
Counsel
Legal D-7158
1007 Market Street
Wilmington, DE 19898
(302) 774-6443



8EHQ-92-12028
INIT 10/27/92



88928818278

CAS# 7664-39-3; 353-50-4

Chem: Hydrogen Fluoride and Carbonyl Fluoride

**Title: Acute Inhalation Toxicity Studies of Hydrogen Fluoride
and Carbonyl Fluoride**

Date: 7/15/76

Summary of Effects: LC50 204 ppm (V/V)

III. CARBONYL FLUORIDE (Continued)

C. Results

Nine exposures were conducted and all resulted in partial mortality within each test group. The data is presented below:

<u>Analytical TWA Conc.</u> <u>(ppm COF₂, v/v)</u>	<u>Std. Dev.</u> <u>(ppm COF₂, v/v)</u>	<u>Fractional Mortality</u> <u>(# Deaths/# Test Animals)</u>
26.7	4.1	5/10
30.8	3.3	3/10
32.7	1.7	3/10
41.3	6.7	6/10
44.7	6.2	8/10
47.2 (48.8 by IR, Appendix A)	4.6	9/10
47.6	6.8	6/10

Few clinical signs were observed. Rapid shallow to convulsive respiration did occur, varying directly with exposure concentration. Gross pathologic examinations performed on three rats reported white plaques, red focal spots, consolidation and edema of the lungs. Liver congestion and bright red spleens were also observed.

D. Summary

The acute inhalation toxicity of COF₂ was examined in four-hour exposures. The calculated LC₅₀† for rats under our experimental conditions was 34.3 ppm of COF₂ in air with 95% confidence limits of 23.3 to 40.4 ppm.

IV. Discussion

It is obvious, from these results, that the toxicity of COF₂ is not so neat a function of its hydrolysis as suspected. The results only tell us the four-hour LC₅₀'s for these compounds. They do not delineate the mechanisms of action nor prove or disprove any toxicity relationship between the two compounds. The toxicity of COF₂ may still be, and probably is, due to the HF formed during COF₂ hydrolysis in the moist passages of the respiratory tract. However, the kinetics of the hydrolysis reaction might possibly affect the site of HF insult. This would make the toxicity of COF₂ a function of not only its hydrolysis to HF but also of its depth of penetration into the lungs.

TRIAGE of 8(e) Submissions

Date sent to triage: 3/17/95

NON-CAP

CAP

Submission number: 12028 A

TSCA Inventory: Y N

D

STUDY TYPE (circle appropriate):

~~Cheng-Chun Lee~~ (E609C)

ATOX

SBTOX

SEN

w/NEUR

Larry Newsome (E425)

ECO

AQUATO

Katherine Anitole (E611G)

RTOX/DTOX

Daljit Sawhney (E611A)

CTOX

STOX

Deborah Norris (E602)

NEUR

Jeff Beaubier (E608)

EPI

Ron Ward (E611F)

IMMUNO/ALLERG

David Lai (E611B)

CARC

Michael Cimino (E611D)

GTOX

Leonard Keifer (E611C)

META/PHARM

NOTES:

CECATS DATA: Submission # BEHQ 1092 - 1228 SEQ # A

TYPE: INT. SUPP FLWP

SUBMITTER NAME: E. J. Dupont de Nemours and Company

INFORMATION REQUESTED: FLWP DATE: 0501 NO INFO REQUESTED; 0502 INFO REQUESTED (TECH); 0503 INFO REQUESTED (VOL. ACTIONS); 0504 INFO REQUESTED (REPORTING RATIONALE); DISPOSITION: 0639 REFER TO CHEMICAL SCREENING; 0678 CAP NOTICE

VOLUNTARY ACTIONS: 0401 NO ACTION RECORDED; 0402 STUDIES PLANNED/IN PROGRESS; 0403 NOTIFICATION OF WORKER HEALTH; 0404 LABEL/MSDS CHANGES; 0405 PROCESS/AND/OR CHANGES; 0406 APP/USE DISCONTINUED; 0407 PRODUCTION DISCONTINUED; 0408 CONFIDENTIAL

SUB DATE: 10/16/92 OTS DATE: 10/27/92 CSRAD DATE: 02/16/95

CHEMICAL NAME: Hexafluoro acetone

CAS# 13098-39-0

INFORMATION TYPE:	P F C	INFORMATION TYPE:	P F C	INFORMATION TYPE:	P F C
0201 ONCO (HUMAN)	01 02 04	0216 EPICLIN	01 02 04	0241 IMMUNO (ANIMAL)	01 02 04
0202 ONCO (ANIMAL)	01 02 04	0217 HUMAN EXPOS (PROD CONTAM)	01 02 04	0242 IMMUNO (HUMAN)	01 02 04
0203 CELL TRANS (IN VITRO)	01 02 04	0218 HUMAN EXPOS (ACCIDENTAL)	01 02 04	0243 CHEM/PHYS PROP	01 02 04
0204 MUTA (IN VITRO)	01 02 04	0219 HUMAN EXPOS (MONITORING)	01 02 04	0244 CLASTO (IN VITRO)	01 02 04
0205 MUTA (IN VIVO)	01 02 04	0220 ECO/AQUA TOX	01 02 04	0245 CLASTO (ANIMAL)	01 02 04
0206 REPRO/TERATO (HUMAN)	01 02 04	0221 ENV. OCCUR/ELF/ATE	01 02 04	0246 CLASTO (HUMAN)	01 02 04
0207 REPRO/TERATO (ANIMAL)	01 02 04	0222 EMER INCI OF ENV CONTAM	01 02 04	0247 DNA DAM/REPAIR	01 02 04
0208 NEURO (HUMAN)	01 02 04	0223 RESPONSE REQUEST DELAY	01 02 04	0248 PROD/USE/PROC	01 02 04
0209 NEURO (ANIMAL)	01 02 04	0224 PRODCOMP/CHEM ID	01 02 04	0251 MSDS	01 02 04
0210 ACUTE TOX. (HUMAN)	01 02 04	0225 REPORTING RATIONALE	01 02 04	OTHER	01 02 04
0211 CHR. TOX. (HUMAN)	01 02 04	CONFIDENTIAL	01 02 04		
0212 ACUTE TOX. (ANIMAL)	01 02 04	ALLERG (HUMAN)	01 02 04		
0213 SUB ACUTE TOX (ANIMAL)	01 02 04	ALLERG (ANIMAL)	01 02 04		
0214 SUB CHRONIC TOX (ANIMAL)	01 02 04	METAB/PHARMACO (ANIMAL)	01 02 04		
0215 CHRONIC TOX (ANIMAL)	01 02 04	METAB/PHARMACO (HUMAN)	01 02 04		

TRIAGE DATA: NON-CBI INVENTORY YES; ONGOING REVIEW YES (DROP/REFER); CAS SR NO; NO (CONTINUE); REFTR

SPECIES: RAT; TOXICOLOGICAL CONCERN: LOW

MED HIGH

USE: IMMUNO; PRODUCTION:

H - acute inhalation

"12028A" = "HYDROGEN FLUORIDE AND CARBONYL FLUORIDE (CAS NO. 7664-39-3; 353-50-4) WERE ADMINISTERED (VIA 4-HOUR INHALATION EXPOSURE) TO RATS (10/GROUP) AT CONCENTRATIONS OF 26.7, 30.8, 32.7, 41.3, 44.7, 47.2, OR 47.6 PPM. MORTALITIES OCCURRED AT ALL EXPOSURE LEVELS. CLINICAL SIGNS INVOLVING SHALLOW TO CONVULSIVE RESPIRATION, VARIED DIRECTLY WITH EXPOSURE CONCENTRATION. GROSS PATHOLOGIC EXAMINATION OF THREE RATS REVEALED WHITE PLAQUES, RED FOCAL SPOTS, CONSOLIDATION AND EDEMA OF THE LUNGS, LIVER CONGESTION, AND BRIGHT RED SPLEENS. THE CALCULATED LC50 WAS 34.3 PPM. ACTUAL STUDY DATA WERE NOT PROVIDED."