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Date Produced	Date Recieved	TSCA section
6/30/69	12/26/91	8ECP

Submitting Organization
ATOCHEM NORTH AMER INC

Contractor
PHARMACOLOGY RES INC

Document Title
INITIAL SUBMISSION: ONE-HOUR VAPOR TOXICITY IN MICE (FINAL REPORT) WITH COVER LETTER DATED 122391

Chemical Category
2,4,4-TRIMETHYL-2-PENTANETHIOL

1850

8(e)

CAP

(Compliance Audit Program)

CBI

ORIGINAL - DCO (Jeff)

COPY # 1 - CBIC

COPY # 2 - Scott Sherlock

SANITIZED

ORIGINAL - PINS (Danyale)

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NON-CBI

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CONTAINS NO CBI

ATOCHEM
NORTH AMERICA
elf aquitaine

ATOCHEM NORTH AMERICA
900 First Avenue, P.O. Box 1555, King of Prussia, Pennsylvania 19406-0918, (215) 337-6000

91 DEC 26 PM 12:00

8EHQ-1291-1850 INT
3-PP

December 23, 1991

88920000494

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

Document Processing Center (TS-790)
Office of Toxic Substances
U.S. Environmental Protection Agency
401 M St., S.W.
Washington, D.C. 20460

Attn: Section 8(e) Coordinator (CAP Agreement)

RE: Report Submitted Pursuant to the TSCA Section 8(e) Compliance Audit Program

CAP Identification Number: 8ECAP-0026

Dear Sir/Madam:

Pursuant to the Toxic Substances Control Act (TSCA) Section 8(e) Compliance Audit Program and the Agreement for TSCA Section 8(e) Compliance Audit Program (CAP Agreement) executed by Atochem North America Inc. (Atochem) and the Environmental Protection Agency (EPA), Atochem is submitting the enclosed one-hour vapor toxicity in mice study to the EPA. This study does not involve effects in humans.

Nothing in this letter or the enclosed study is considered confidential business information of Atochem.

The enclosed study provides information on the chemical t-octyl mercaptan. Its exact chemical name is 2-pentanethiol, 2,4,4-trimethyl-, and its CAS number is 141-59-3. This chemical substance is manufactured and distributed in commerce by Atochem.

The title of the enclosed study is Tertiary Octyl Mercaptan Lot No. 101-TO-69: One-Hour Vapor Toxicity in Mice. The following is a summary of the adverse effects observed in this study.

Groups of five male mice were exposed to vapors of t-octyl mercaptan for 1-hour. All concentrations were expressed as nominal concentrations. The LC_{50} was calculated to be 0.4

mg/liter (approximately 66 ppm). Convulsive episodes were noted at all exposure levels, including the lowest concentration of 0.25 mg/l (approximately 40 ppm). The LC_{50} and convulsive episodes are consistent with effects reported in rats by Stokinger and Fairchild (1958), although this study demonstrates new information in a second species.

To our knowledge, Atochem has not previously submitted any TSCA Section 8(e) notices or premanufacture notifications on the subject chemical.

The current Material Safety Data Sheet indicates that this chemical is highly toxic and may be fatal if inhaled. In addition, the label includes recommendations not to get in eyes, on skin or clothing; not to breathe dust, vapor, mist, gas; to keep container closed; and to wash thoroughly after handling.

Further questions regarding this submission may be directed to me at 215 337-6892.

Sincerely,

Craig

C.H. Farr, PhD, DABT
Manager, Product Safety
and Toxicology

Enclosures

TOXICOLOGY REPORT
FOR PENNWALT CORPORATION

RE: TERTIARY OCTYL MERCAPTAN LOT NO. 101-TO-69.

A MALODOROUS, CLEAR COLORLESS LIQUID; AMBIENT SP GR = 0.837.

SUMMARY: ONE-HOUR VAPOR TOXICITY IN MICE: LC_{50} = 0.40 MG/LITER.

ONE-HOUR VAPOR TOXICITY IN MICE.

METHOD. GROUPS OF FIVE ♂ MF_1 MICE, 29± G BW, WERE EXPOSED TO THE VAPORIZED SAMPLE IN 20-LITER CHAMBERS FOR A PERIOD OF ONE HOUR. SURVIVORS WERE OBSERVED SIX DAYS POST-EXPOSURE.

RESULTS.

ML SAMPLE IN CHAMBER	VAPOR CONC. MG/LITER	NO. MICE DEAD/TOTAL	MORTALITY	TIME FOR DEATH MINUTES
0.0060	0.25	0 / 5	0 %	- - - - -
0.0084	0.35	2 / 5	40 %	- - - 44,59
0.0120	0.50	4 / 5	80 %	- 38,40,49,52
0.0167	0.70	5 / 5	100 %	14,18,21,32,35
0.0240	1.00	5 / 5	100 %	10,11,12,14,14

LC_{50} = 0.40 MG/LITER.

SYMPTOMATOLOGY: HYPERTONICITY, HYPERSENSITIVITY, MULTIPLE CLONICOTONIC CONVULSIONS; ALL DEATHS OCCURRED DURING THE PERIOD OF EXPOSURE. MINIMUM CONVULSIVE CONC. = 0.25 MG/LITER.

PHARMACOLOGY RESEARCH, INC.

BY [signature]
A. R. LATVEN 6/30/69

PROTOCOL REFS: PR#69.4776; ARL XXIV,23.