



8140-96-13640
INIT 04/30/96

8 (4)
8EHQ-0496-13640

The Dow Chemical Company
Midland, Michigan 48674

2030 DOW CENTER
April 23, 1996

CERTIFIED MAIL--
RETURN RECEIPT REQUESTED



88968888128



Document Processing Center (TS-790)
Office of Toxic Substances
U.S. Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460
Attn: 8(e) Coordinator

ORIGINAL

96 APR 30 PM 2:36

RECEIVED
OPPT NCIC

Re: Methoxyacetic Acid, a metabolite of ethylene glycol monomethyl ether

Dear Sir/Madam:

The following information is being submitted by The Dow Chemical Company (Dow) pursuant to current guidance issued by EPA indicating EPA's interpretation of Section 8(e) of the Toxic Substance Control Act. Dow has made no determination as to whether a significant risk of injury to health or the environment is actually presented by the findings.

In a developmental toxicity study using New Zealand White Rabbits, the test material was administered via oral gavage once daily on gestation day 7 to 19 at concentrations of 0, 2.5, 7.5, or 15.0 mg/kg/day. Each group consisted of 20 artificially inseminated adult rabbits. The test material at 15.0 mg/kg/day resulted in maternal toxicity, evidenced by decrease fecal production and/or soft feces, decreased food consumption, increased relative liver weights and body weight losses during the treatment period. No significant maternal effects were noted at 7.5 or 2.5 mg/kg/day. The test material at 7.5 and 15.0 mg/kg/day was teratogenic, inducing malformations of the limbs and digits, ribs and diaphragm. Variations of the limbs, digits, sternebrae, axial skeleton and urogenital system also were observed in these two groups, along with decreased fetal body weights. Increased resorptions and correspondingly decreased litter size and gravid uterine weights were seen only at the highest dose level. No evidence of developmental toxicity was found in the 2.5 mg/kg/day group.

No written report of these results is yet available.

Sincerely,

Paul A. Wright
Paul A. Wright
Senior Attorney
Legal Department
517/636-1853

Contains No CB!

96 MAY -9 AM 11:45

RECEIVED
OPPT NCIC

TRIAGE of 8(e) Submissions

Date sent to triage: _____

NON-CAP

CAP

Submission number: 13640A

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

Davis Lai (E611B)

CARC

Michael Cimino (E611D)

GTOX

Leonard Keifer (E611C)

META/PHARM

NOTES:

CELEIS DATA
Submission # BEHQ. 0596-13640 SEQ. A
TYPE: (NT) SUPP FLWP

SUBMITTER NAME: Dow Chemical Company

SUB. DATE: 04/23/96 OTS DATE: 04/30/96

CASR DATE: 07/11/96
CHEMICAL NAME:
CASE# 625-45-6

VOLUNTARY ACTIONS:
0401 NO ACTION REPORT ID
0402 STUDY'S PLANNING IN PROGRESS
0403 NOTIFICATION OF WORKING CONDITIONS
0404 LABELING/MSDS (TRANSFERS)
0405 PROFESSIONAL/INDUSTRY (TRANSFERS)
0406 APPAUSE DISCONTINUED
0407 PRODUCTION DISCONTINUED
0408 CONFIDENTIAL

INFORMATION REQUESTED: FLWP DATE:
0501 NO INFO REQUESTED
0502 INFO REQUESTED (TECH)
0503 INFO REQUESTED (VOL ACTIONS)
0504 INFO REQUESTED (REPORTING RATIONALE)
DISPOSITION:
0600 REFER TO CHEMICAL SCREENING
0678 CAP NOTICE

INFORMATION TYPE:	P.F.C.	INFORMATION TYPE:	P.F.C.	INFORMATION TYPE:	P.F.C.
0201 ONCO (HUMAN)	01 02 04	0216 EPICLJN	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. OCCUREL/FATE	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 REQEST DELAY	01 02 04	0248 PROD/USE/PROC	01 02 04
0209 NEURO (ANIMAL)	01 02 04	0224 PROD/COMP/CHEM ID	01 02 04	0251 MSDS	01 02 04
0210 ACUTE TOX. (HUMAN)	01 02 04	0225 REPORTING RATIONALE	01 02 04	0299 OTHER	01 02 04
0211 CHR. TOX. (HUMAN)	01 02 04	0226 CONFIDENTIAL	01 02 04		
0212 ACUTE TOX. (ANIMAL)	01 02 04	0227 ALLERG (HUMAN)	01 02 04		
0213 SUB ACUTE TOX (ANIMAL)	01 02 04	0228 ALLERG (ANIMAL)	01 02 04		
0214 SUB CHRONIC TOX (ANIMAL)	01 02 04	0229 METAB/PHARMACO (ANIMAL)	01 02 04		
0215 CHRONIC TOX (ANIMAL)	01 02 04	0240 METAB/PHARMACO (HUMAN)	01 02 04		

IRISAGE DATA: NON-CBI INVENTORY YES (DROPPREF) NO (CONTINUE) REFTR

SPECIES: RBT

TOXICOLOGICAL CONCERN: LOW MED HIGH

USE: PRODUCTION:

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"13640A"="_____"="ABSTRACT BASED ON SUMMARIZED RESULTS SUBMITTED WITHOUT A REPORT. METHOXYACETIC ACID (CAS# 625-45-6) WAS ADMINISTERED ORALLY TO NEW ZEALAND WHITE RABBITS (20/GROUP) ONCE DAILY ON GESTATION DAYS 7-9 AT CONCENTRATIONS OF 0, 2.5, 7.5, OR 15.0 MG/KG/DAY. MATERNAL TOXICITY WAS SEEN AT 15.0 MG/KG/DAY AS EVIDENCED BY DECREASED FECAL PRODUCTION AND/OR SOFT FECES, DECREASED FOOD CONSUMPTION, INCREASED RELATIVE LIVER WEIGHTS, AND BODY WEIGHT LOSSES DURING THE TREATMENT PERIOD. NO SIGNIFICANT MATERNAL EFFECTS WERE NOTED AT 7.5 OR 2.5 MG/KG/DAY. THE TEST MATERIAL AT 7.5 AND 15.0 MG/KG/DAY WAS TERATOGENIC, INDUCING MALFORMATIONS OF THE LIMBS AND DIGITS, RIBS AND DIAPHRAGM. VARIATIONS OF THE LIMBS, DIGITS, STERNEBRAE, AXIAL SKELETON, AND UROGENITAL SYSTEM ALSO WERE OBSERVED IN THESE TWO GROUPS, ALONG WITH DECREASED FETAL BODY WEIGHTS. INCREASED RESORPTIONS AND CORRESPONDINGLY DECREASED LITTER SIZE AND GRAVID UTERINE WEIGHTS WERE SEEN ONLY AT THE HIGHEST DOSE. NO EVIDENCE OF DEVELOPMENTAL TOXICITY WAS FOUND IN THE 2.5 MG/KG/DAY. THE NOEL IS 2.5 MG/KG/DAY FOR BOTH MATERNAL AND FETAL TOXICITY."