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UNION CARBIDE CHEMICALS AND PLASTICS COMPANY INC.
HEALTH, SAFETY AND ENVIRONMENTAL AFFAIRS

November 22, 1991

3 pp

CERTIFIED MAIL
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Office of Toxic Substances
U.S. Environmental Protection Agency
401 M Street, SW
Washington, DC 20460

8EHA-1291-1456 SUPP
88920000102 : PDCN



89920000073

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

Re: CAP Agreement Identification No. 8ECAP-0110

Dear Sir or Madam:

Union Carbide Corporation ("Union Carbide") herewith submits the attached amended summary to its report (identified below) which was sent to EPA on November 4, 1991, pursuant to the terms of the TSCA §8(e) Compliance Audit Program and Union Carbide's CAP Agreement dated August 14, 1991 (8ECAP-0110).

The attached amended summary replaces the summary which was attached to the original submission.

"1,3-Propanediamine: Range Finding Toxicity Studies", Chemical Hygiene Fellowship (Carnegie-Mellon University), Project Report 40-102, August 17, 1977.

Yours truly,

William C. Kuryla, Ph.D.
Assistant Director
Product Safety
(203/794-5230)

WCK/cr

Attachment (3 copies of cover letter and amended summary)

39 OLD RIDGEBURY ROAD, DANBURY, CT 06817-0001

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SUMMARY

40-102

1,3-Propanediamine

Range Finding Toxicity Studies

Sponsor: *Union Carbide Corporation*

* * * * *

Summary

- Stomach Intubation, rat - LD50 = 0.616 ml/kg; dosed as received.
Skin Penetration, rabbit - LD50 = 0.400 ml/kg; dosed as received.
Inhalation, rat -
 Substantially saturated vapor, dynamic conditions at 23°C.
 8 hours killed 0 of 6 (some skin irritation noted).
Uncovered Skin Irritation, rabbit - Moderate, Grade 6.
Eye Injury, rabbit - Severe, Grade 9.

Peroral, Single Dose to Rats

LD50 - 0.616 (0.382 to 0.992) ml/kg; dosed as received.

Conditions - Standard.

Dosage; ml/kg	Dead Dosed	Days to Death	Weight Change	Signs and/or Symptoms
4.0	3/3	0,0,0	-	Death 2 hr
2.0	5/5	0,0,0,0,0	-	Heavy breathing, piloerection 1 hr; death 4.5 hr
1.0	4/5	0,0,1,1	-4 gm	Piloerection 2 days; high wt loss 3 through 6 days; fur orange 6 days; death of 2 at 4.5 hr
0.5	2/5	8,9	103 to 112 gm	-
0.25	0/5	-	-20 to 93 gm	-

Gross Pathology - In victims, petechial hemorrhages to solid hemorrhage of the lungs; livers pale, mottled, acini prominent; spleens mottled; kidneys pale, mottled, sections congested; adrenals congested; stomachs distended, transparent, liquid-filled; pylori hemorrhaged; intestines opaque, gas- or liquid-filled, yellow, pink to hemorrhaged. In survivors, acini of livers prominent; kidneys pale; stomachs shrunken, opaque, gas-filled; intestines gas- and liquid-filled, yellow, pink.

Conclusions - Moderately toxic following acute peroral intubation.

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