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INITIAL SUBMISSION: LETTER SUBMITTING FOUR ENCLOSED ACUTE TOXICITY STUDIES ON FOUR SEPARATE CHEMICALS WITH ATTACHMENTS		
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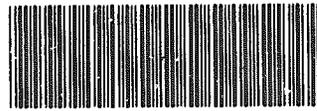
GE Corporate Research and Development

Building K1, Room 1A69
February 14, 1992

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Report of TSCA Section 8(e) Information

The attached information is being submitted to the United States Environmental Protection Agency pursuant to TSCA Section 8(e) (15 U.S.C. 2067(e)). We became aware of these studies during the course of our Consent Order Section 8(e) audit. We are herewith submitting the information as required under the referenced Consent Order.

CASE #1

Study Title: Acute Toxicity Screening Studies in Rats and Rabbits-AR 81242
Substance(s): N,N-di-tertiarybutyl ethylenediamine CAS# 4062-60-6
Adverse Effects: Acute dermal toxicity of possibly less than 200 mg/kg in rabbits.
Comments: A 1973 non-GLP toxicity screening study, which found the material to be an extreme eye irritant, primary skin irritant, as well as moderately toxic by the dermal route. The material is on the TSCA Inventory, and was used as an R&D chemical.

Case #2

Study Title: Acute Toxicity Screening Studies in Rats and Rabbits-AR 84996
Substance: Butyl dimethylamine CAS# 927-62-8
Adverse Effects: Neurotoxicity in non-moribound animals
Comments: A 1975 non-GLP study, which found the material to cause neurotoxic symptoms, during inhalation studies, using rats, at airborne concentrations of 2 mg/L. The material is on the TSCA Inventory and was used as an R&D chemical during the time of the study.

Case #3

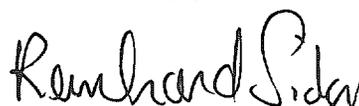
Study Title: Acute Inhalation Toxicity in the Albino Rat-AR85124
Substance: Isobutyl methacrylate CAS# 97-86-9
Adverse Effects: Neurotoxic signs during inhalation study.
Comments: A 1975 non-GLP study, which found the material to be only slightly toxic by inhalation, however noted neurotoxic sign in non-moribound rats. The material is on the TSCA Inventory and was used as an R&D chemical during the time of the study.

Case #:

Study Title: Acute Toxicity Screening Studies in Rats and Rabbits-AR 98447
Substance: Bis-(3-aminopropyl) tetramethyl disiloxane CAS# 2469-55-8
Adverse Effects: Potentially a moderately to highly toxic material, by oral route in rats.
Comments: A 1985 study following GLP. While the study found the material to be maximally irritating to the eyes, and severely irritating to the skin, these results were to be expected of amines; the report is being submitted however because of the finding that this material has an oral LD-50 of less than 500 mg/kg, in rats. This material is on the TSCA inventory.

Please call if there are questions on the above.

Sincerely yours,



Reinhard Sidor, Administrator
Industrial Hygiene/Safety

cc V. Giordano, CEP
J. Magee

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**GE-Corporate Research and Development
Schenectady, NY**

TSCA 8(e) Submittal

Case #3

Acute Inhalation Toxicity in the Albino Rat

AR 85124

Isobutyl methacrylate

CAS#97-86-9

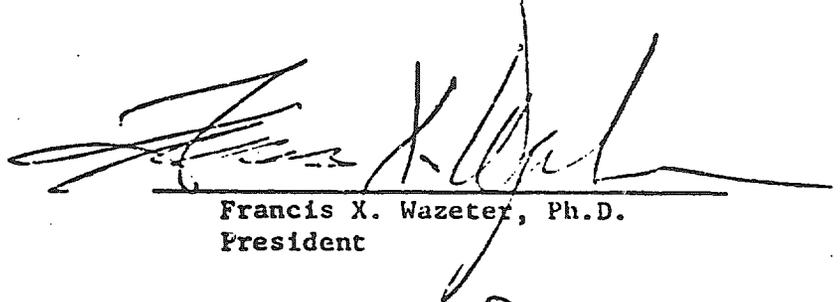
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Isobutyl methacrylate

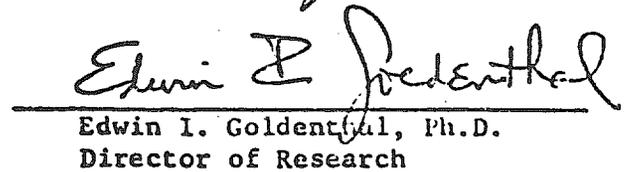
International Research and Development Corporation

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SPONSOR: General Electric Company
COMPOUND: AR-85124
SUBJECT: Acute Inhalation Toxicity
in the Albino Rat.



Francis X. Wazeter, Ph.D.
President



Edwin I. Goldenthal, Ph.D.
Director of Research

Collaborator:

W. P. Dean, B.A.,
Director of Acute Toxicology

Date: December 31, 1975

313-070

T A B L E O F C O N T E N T S

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I. SYNOPSIS

AR-85124 was evaluated for acute inhalation toxicity in albino rats. At the 2.0 mg/L. exposure level, no deaths occurred during the 4 hour exposure period or during the subsequent 14 day period of observation. At the 200 mg/L. level, two rats were dead at the termination of the exposure period, five additional rats died within 3 hours following exposure termination, and one additional rat was dead at 24 hours. The remaining two rats survived the 14 day observation period.

The pharmacodynamic and/or toxic signs observed are recorded in the body of this report.

Based upon the results obtained, AR-85124 would be considered a toxic but not highly toxic substance by the inhalation route of administration.

II. COMPOUND

Two samples of the test compound were received from the General Electric Company, Schenectady, New York. The first and second samples were received on November 6, 1975 and November 25, 1975 respectively. Both samples were identified as "AR-85124" and were received as a clear colorless liquid.

III. METHOD

A. General Procedure:

Ten male and ten female rats of the Charles River CD strain, weighing from 200 to 250 grams, were used in this test. The rats were housed by sex in groups of five in metal cages elevated above the droppings and maintained in temperature and humidity controlled quarters throughout the pre-exposure and post-exposure periods. Purina Laboratory Chow and water were available ad libitum. The rats were divided into 2 groups of five male and five female rats each. One group received the test material at an atmospheric concentration of 2 mg/L., the second group at a concentration of 200 mg/L.

During the 4 hour exposure period to the test compound, the rats were observed continuously for changes in behavior and/or appearance. Immediately following the exposure and for a period of 14 days thereafter, the rats were examined closely for pharmacodynamic and/or toxic signs.

B. Compound Administration:

Each group of ten rats was placed in a sealed 59.1 liter glass chamber and exposed for 4 hours to a dynamic atmosphere containing the mist of the test material. In order to prevent "piling up" during the exposure, the rats were separated into 4 units of two or three rats each.

Addition of the test compound to the test chamber atmosphere was controlled by a Harvard Infusion Pump at the 2.0 mg/L. level,

and by a Dow Dual Syringe Feeder at the 200 mg/L. level. Dried and filtered air was passed through the mechanism and directly into the exposure chamber. Airflow was regulated by means of a flowmeter¹.

The calculated atmospheric concentrations administered were approximately 2.0 and 200 mg/L. of AR-85124.

¹Gelman Instrument Company, Ann Arbor, Michigan, Model No. 8221

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IV. RESULTS

A. 2.0 mg/L:

All of the rats exposed to the 2.0 mg/L. atmospheric concentration survived the 14 day observation period.

Signs observed during the 4 hour exposure period included decreased motor activity, eye squint, erythema, slight dyspnea and tonic convulsions (2 rats). At the termination of the exposure period, decreased motor activity and slight dyspnea were observed in two rats, and decreased limb tone was noted in one rat.

At 24 hours, decreased motor activity was observed in several rats. At 48 hours and for the duration of the 14 day observation period, all rats appeared normal.

All rats at this exposure level exhibited body weight gains during the study period.

B. 200 mg/L:

Eight of the ten rats exposed to the 200 mg/L. level died. Two male rats were dead at the termination of the exposure period. Within 3 hours following the exposure termination an additional two male and three female rats were found dead. At 24 hours, one additional female rat was dead. The remaining male and female rat survived the 14 day observation period.

Signs observed during the 4 hour exposure period included increased followed by decreased motor activity, eye squint, erythema, salivation, lacrimation, clear nasal discharge, nasal porphyrin discharge, tachypnea, both slight and marked dyspnea,

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ataxia, tonic convulsions and prostration. In addition to the deaths noted above, signs at the termination of the exposure period included decreased motor activity, eye squint, urine stained abdomen, salivation, lacrimation, corneal opacity (one rat), marked dyspnea, ataxia, prostration, cyanosis and hypothermia.

At 24 hours, one female rat was found dead, in addition to the deaths noted above for the day of exposure. Other signs at 24 hours included urine stained abdomen, corneal surface drying, hypersensitivity to touch accompanied by vocalization, marked dyspnea, respiratory congestion and dehydration.

At 48 hours through 4 days, one of the two remaining rats exhibited slight dyspnea, respiratory congestion and dehydration. In addition, hypersensitivity to touch was exhibited by both remaining rats at 72 hours and by one rat at 4 days. Decreased motor activity was noted in one rat at 4 days.

At 5 days and for the remainder of the 14 day observation period both remaining rats appeared normal.

The surviving male and female rat each exhibited normal body weight gains during the study period.

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C. Necropsy Findings:

Necropsy findings in rats which died at 200 mg/L. were as follows:

no gross lesions	1/4 males	
congestion, lung	3/4 males	4/4 females
yellow areas, lung	1/4 males	
blood clot in stomach		1/4 females

D. Acute Inhalation Toxicity:

Based upon the results obtained, AR-85124 would be considered a toxic, but not highly toxic, substance by the inhalation route of administration.