

Contains No CBI



PHILLIPS PETROLEUM COMPANY
BARTLESVILLE, OKLAHOMA 74004 918 661-6600

Contains NO CBI

HEALTH, ENVIRONMENT AND SAFETY

(A)

August 24, 1992

Compliance Audit Program
CAP ID#: 8ECAP-0075

1992 SEP -2 PM 1:16
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CERTIFIED MAIL - RETURN RECEIPT

8EHA-92-12553

88920010737

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Document Processing Center (TS-790)
Office of Pollution Prevention and Toxics
Environmental Protection Agency
401 M Street, SW
Washington, D. C. 20460

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

Gentlemen:

Phillips Petroleum Company is submitting the enclosed sixty (60) reports (two boxes, numbered 1 and 2) of toxicological studies pursuant to category II.B.2.b of the CAP Agreement 8ECAP-0075 Reports. Reports being submitted contain no confidential business information.

We are sending an additional five boxes (box numbers 3-7) of reports of studies that have, previously, been submitted to the FYI coordinator of the Office of Pollution Prevention and Toxics by the American Petroleum Institute (API). These are being provided solely for the Agency's convenience.

For questions concerning this correspondence, please contact Fred Marashi at 918-661-8153.

Very truly yours,

Barbara J. Price
Vice President
Health, Environment & Safety

Enclosure (Seven Boxes)

FFM/dh:29

mm
3/10/95



Phillips Petroleum Company

Contains No CBI

37

CAP Identification Number: 8ECAP-0075
Pursuant to Category: II.B.2.b

Title of Study: Acute Inhalation Toxicity Study in Rats 1,5-Hexadiene

Name of Chemical: 1,5-Hexadiene

CAS#: 592-42-7

Summary: The acute inhalation LC_{50} is calculated to be greater than 112,813 ppm. Clinical signs included tremors, prostration, and rapid respiration.

Contact:

Fred Marashi
Phillips Petroleum Company
13 D2 PB
Bartlesville, OK 74004
Phone: 918/661-8153
Fax: 918/661-5664



ACUTE INHALATION TOXICITY STUDY IN RATS

1,5-Hexadiene

FINAL REPORT

Submitted to

Phillips Petroleum Company
Bartlesville, Oklahoma

October 21, 1983



SUBJECT: Acute Inhalation Toxicity Study in Rats, 1,5-Hexadiene
Project No. 652-150

We, the undersigned, hereby declare that the work was performed
under our supervision, according to the procedures herein described.

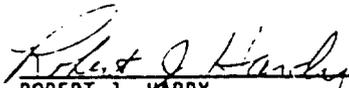
Study Director:


DEBORAH H. PENCE, Ph.D.
Diplomate, American Board of
Toxicology
Associate Director of Toxicology
Scientific Coordination
Department of Toxicology

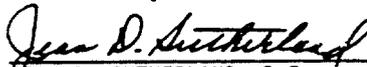
Project Manager:


WILLIAM B. COATE, Ph.D.
Director
Inhalation Toxicology Department

Laboratory Supervisor:


ROBERT J. HARDY
Section Supervisor
Inhalation Toxicology Department

Report Preparation:


DEAN D. SUTHERLAND, B.S.
Technical Writer
Scientific Resources Department

tls

FINAL REPORT

ACUTE INHALATION TOXICITY STUDY IN RATS*
PHILLIPS PETROLEUM COMPANY

DATE: October 21, 1983

TEST MATERIAL: 1,5-Hexadiene PROJECT NO.: 652-150

RECEIPT DATE: August 24, 1982 TEST DATE(S): August 18, 1983-September 1, 1983

X SINGLE TEST; _____ LC50 TEST

ANALYTICAL METHOD:** _____ IR (Wave Length _____) ; X THC; _____ HNU;
_____ OTHER (method appended)

NOMINAL CONCENTRATIONS TESTED (mg/L):

GP.1 152.58; GP.2 _____; GP.3 _____; GP.4 _____; GP.5 _____

MEAN ANALYTICAL CONCENTRATIONS (ppm):

Mean: GP.1 112.813; GP.2 _____; GP.3 _____; GP.4 _____; GP.5 _____

S.D.: 5147.4; _____; _____; _____; _____

RESULTS:

	<u>GP.1</u>	<u>GP.2</u>	<u>GP.3</u>	<u>GP.4</u>	<u>GP.5</u>
DEATHS: Males:	$\frac{0}{5}$	$\frac{\quad}{5}$	$\frac{\quad}{5}$	$\frac{\quad}{5}$	$\frac{\quad}{5}$
Females:	$\frac{1}{5}$	$\frac{\quad}{5}$	$\frac{\quad}{5}$	$\frac{\quad}{5}$	$\frac{\quad}{5}$
Total:	$\frac{1}{10}$	$\frac{\quad}{10}$	$\frac{\quad}{10}$	$\frac{\quad}{10}$	$\frac{\quad}{10}$

* Reference Phillips Protocol 3, a-d c Compound Generated as: Vapor

** Analytical Standard Curve Appended

REMARKS:

One female, #1499, died during exposure.

BODY WEIGHTS AND CLINICAL OBSERVATIONS:

Group mean body weights are shown in Table 1. There was only a slight change in mean body weight of males through Day 4 postexposure and in mean body weight of females through Day 7 postexposure. Mean body weight of males and females both were increased at Day 14 postexposure.

Clinical signs noted after 10 minutes of exposure for all animals included tremors, prostration and rapid respiration. During the remainder of the four hour exposure, the majority of animals were observed to be prostrate and panting. After two and a half hours of exposure, one male was noted to be prostrate with labored breathing. One female appeared dead after three hours of exposure and was confirmed dead on removal from the chamber.

All surviving animals appeared normal at Day 1 postexposure and for the remainder of the study.

GROSS PATHOLOGY:

Gross pathology findings from the female that died during exposure included alterations of the lungs and kidneys. All lobes of the lungs were bright red and shiny, and the lungs failed to collapse when the thoracic cavity was opened. This animal also was observed to have dilation of the right renal pelvis.

All but two survivors had no gross pathology findings at necropsy. Dilation of the left or right renal pelvis was observed in one male and one female at terminal sacrifice.

PROJECT NO. 652-150

TABLE 1
MEAN BODY WEIGHTS (g)
ACUTE INHALATION TOXICITY STUDY IN RATS: 1,5-Hexadiene

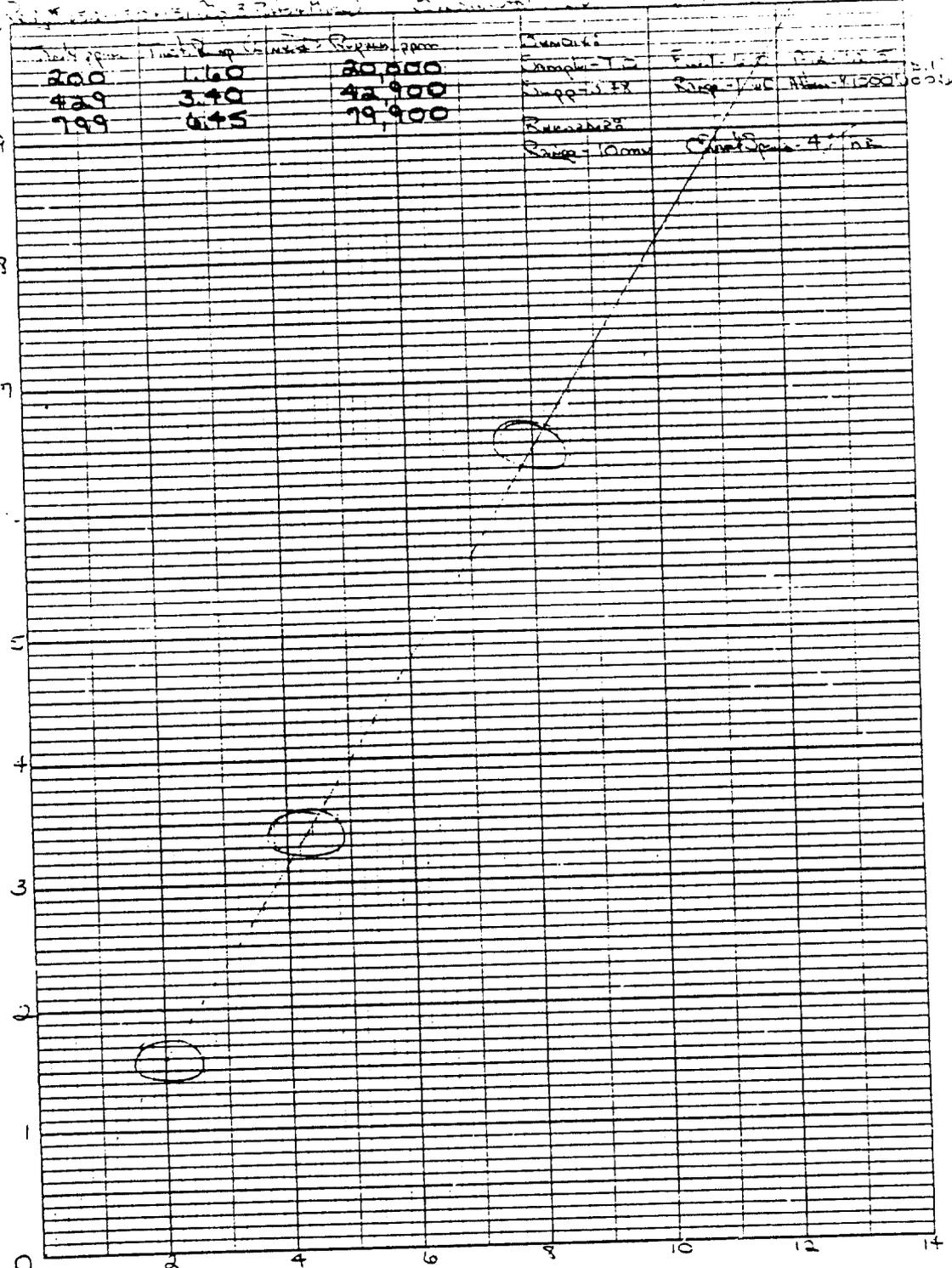
	Pre-Exposure	Day Postexposure				
		2	3	4	7	
1 Male	329.4	330.0	331.8	329.2	339.6	364.0
Female	251.2	251.5ab	252.3a	247.3a	249.5a	257.0a
2 Male						
Female						
3 Male						
Female						
4 Male						
Female						
5 Male						
Female						

^aMean based on 4 animals.
^bBody weight of animal #1499 (death occurred during exposure) was 247 g at necropsy.

55 0780

10 X 10 TO THE INCHES
KLEIN, NEUFEL & ASSOC. CO. NEW YORK

Distorted Regions (in boxes)



Representative ppm (x10,000)



HAZLETON LABORATORIES AMERICA, INC.

9200 LEESBURG TURNPIKE, VIENNA, VIRGINIA 22180, U.S.A.

SPONSOR: Phillips Petroleum Company

DATE: January 26, 1984

MATERIAL: 1,5-Hexadiene

SUBJECT: FINAL REPORT
Acute Inhalation Toxicity Study in Rats
Project No. 652-150

Pages 2 and 2A are being submitted as correction pages for incorporation into the subject report dated October 21, 1983.

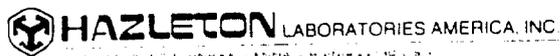
Study Director:

Deborah H. Pence

DEBORAH H. PENCE, Ph.D.
Diplomate, American Board of Toxicology
Associate Director of Toxicology/
Scientific Coordination
Department of Toxicology

1as

CORRECTION PAGE



652-150

- 2 -

REMARKS:

One female, #1499, died during exposure.

BODY WEIGHTS AND CLINICAL OBSERVATIONS:

Group mean body weights are shown in Table 1. There was only a slight change in mean body weight of males through Day 4 postexposure and in mean body weight of females through Day 7 postexposure. Mean body weight of males and females both were increased at Day 14 postexposure.

Clinical signs noted after 10 minutes of exposure for all animals included languid appearance, tremors, prostration and rapid respiration. During the remainder of the four hour exposure, the majority of animals were observed to be prostrate and panting. After two and a half hours of exposure, one male was noted to be prostrate with labored breathing. One female appeared dead after three hours of exposure and was confirmed dead on removal from the chamber. Surviving animals had tremors, ataxia, rapid respiration and appeared languid on removal from the chamber.

CORRECTION PAGE



652-150

- 2A -

All surviving animals appeared normal at Day 1 postexposure and for the remainder of the study.

GROSS PATHOLOGY:

Gross pathology findings from the female that died during exposure included alterations of the lungs and kidneys. All lobes of the lungs were bright red and shiny, and the lungs failed to collapse when the thoracic cavity was opened. This animal also was observed to have dilation of the right renal pelvis.

All but two survivors had no gross pathology findings at necropsy. Dilation of the left or right renal pelvis was observed in one male and one female at terminal sacrifice.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

Barbara J. Price
Vice President
Health, Environment & Safety
Phillips Petroleum Company
Bartlesville, Oklahoma 74004

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

MAY 08 1995

EPA acknowledges the receipt of information submitted by your organization under Section 8(e) of the Toxic Substances Control Act (TSCA). For your reference, copies of the first page(s) of your submission(s) are enclosed and display the TSCA §8(e) Document Control Number (e.g., 8EHQ-00-0000) assigned by EPA to your submission(s). Please cite the assigned 8(e) number when submitting follow-up or supplemental information and refer to the reverse side of this page for "EPA Information Requests".

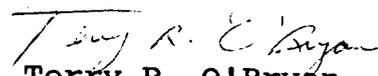
All TSCA 8(e) submissions are placed in the public files unless confidentiality is claimed according to the procedures outlined in Part X of EPA's TSCA §8(e) policy statement (43 FR 11110, March 16, 1978). Confidential submissions received pursuant to the TSCA §8(e) Compliance Audit Program (CAP) should already contain information supporting confidentiality claims. This information is required and should be submitted if not done so previously. To substantiate claims, submit responses to the questions in the enclosure "Support Information for Confidentiality Claims". This same enclosure is used to support confidentiality claims for non-CAP submissions.

Please address any further correspondence with the Agency related to this TSCA 8(e) submission to:

Document Processing Center (7407)
Attn: TSCA Section 8(e) Coordinator
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
Washington, D.C. 20460-0001

EPA looks forward to continued cooperation with your organization in its ongoing efforts to evaluate and manage potential risks posed by chemicals to health and the environment.

Sincerely,


Terry R. O'Bryan
Risk Analysis Branch

Enclosure

12553A



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contains at least 50% recycled fiber

Triage of 8(e) Submissions

Date sent to triage: MAY 03 1995

NON-CAP

CAP

Submission number: 12553A

TSCA Inventory:

Y

N D

Study type (circle appropriate):

Group 1 - Dick Clements (1 copy total)

ECO AQUATO

Group 2 - Ernie Falke (1 copy total)

ATOX SBTOX SEN w/NEUR

Group 3 - Elizabeth Margosches (1 copy each)

STOX CTOX EPI RTOX GTOX
STOX/ONCO CTOX/ONCO IMMUNO CYTO NEUR

Other (FATE, EXPO, MET, etc.): _____

Notes:

THIS IS THE ORIGINAL 8(e) SUBMISSION; PLEASE REFILE AFTER TRIAGE DATABASE ENTRY

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entire document: <u>0</u> 1 2 pages <u>1,2</u>	pages <u>1,2</u>
Notes:	
Contractor reviewer: <u>POE</u>	Date: <u>4/26/95</u>

-CPSS- 0927952113

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> <ID NUMBER>

8(E)-12553A

> <TOX CONCERN>

L

> <COMMENT>

ACUTE INHALATION TOXICITY IN RATS IS LOW CONCERN BASED ON AN LC50 OF > 112, 813 PPM FOR A 4 HOUR EXPOSURE. THERE WAS 1 MORTALITY (1/5 F, 0/5 M) WHEN ANIMALS WERE EXPOSED TO 112,813 PPM OF TEST MATERIAL. CLINICAL SIGNS INCLUDED TREMORS, PROSTRATION, ATAXIA, LANGUID APPEARANCE, AND RAPID RESPIRATION. PATHOLOGIC EXAM OF DECEDENT REVEALED ALL LOBES OF THE LUNGS WERE BRIGHT RED AND SHINY, AND IT FAILED TO COLLAPSE WHEN THE THORACIC CAVITY WAS OPENED. DILATION OF THE RIGHT RENAL PELVIS WAS NOTED IN THE 1 DECEDENT AND IN 2 SURVIVORS.

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