

8-25-92

8EHQ-0892-9471



CONTAINS NO CBI

THE PROCTER & GAMBLE COMPANY

IVORYDALE TECHNICAL CENTER

5299 SPRING GROVE AVENUE, CINCINNATI, OHIO 45217-1087

08/27 PM 1:52

August 7, 1992

Document Processing Center (TS-790)
Office of Toxic Substances
Environmental Protection Agency
401 M Street, S.W.
Washington, DC 20460

DOES NOT CONTAIN CBI

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

This submission is being made pursuant to the TSCA Section 8(e) Compliance Audit Program and the terms of CAP Agreement # 8ECAP-0003. This report discharges our Company obligation to report the attached data under TSCA Section 8(e). The filing of these studies does not indicate that we agree that "substantial risk" exists. We are following the regulatory agency guidance and terms of the CAP agreement, but we expressly disclaim that the filings reflect a decision that these materials pose any significant human or environmental safety risks.

The material identified in the attached report as W0414.01 is "quaternary ammonium compounds, coco alkylbis(hydroxyethyl)methyl, ethoxylated, chlorides (Ethoquad C-12)" (CASRN 61791-10-4). The report is titled "Acute Percutaneous Toxicity Study - W0414.01 - Ethoquad C-12". Any correspondence relating to this submission should reference study # 1056-25343.

The attached report indicates that all animals receiving a single dose of 2 ml test substance/kg body weight died within 7 days of treatment. The test substance consisted of 75% Ethoquad C-12 and 25% isopropyl alcohol, and was applied to abraded or intact skin of New Zealand Albino rabbits (3 animals/group). The acute percutaneous toxicity of Ethoquad C-12 was determined to be < 2 ml/kg.

We do not believe findings in this report reasonably support a conclusion of substantial risk to human health or the environment. Nevertheless, we are submitting this report to discharge any potential liability under TSCA Section 8(e).

To our knowledge, this report has not been the subject of a prior submission to EPA under the provisions of TSCA.

Any questions concerning this submission may be directed to me at (513) 627-5551.



88920007773

Sincerely,

THE PROCTER & GAMBLE COMPANY



8EHQ-92-9471

INIT 08/27/92

Richard H. Hall, Ph.D.
Manager, Regulatory and
Government Affairs



THE PROCTER & GAMBLE COMPANY

MIAMI VALLEY LABORATORIES

P. O. BOX 39173
CINCINNATI, OHIO 45247

Acute Percutaneous Toxicity Study

W0414

W0414.01

Ethoquad C-12

February 13, 1981

GLP REPORT REQUIREMENTS

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NOTE: This table is not intended to serve as the functional Table of Contents for this report. Its purposes are: (1) To help the Study Director satisfy GLP requirements for the nonclinical laboratory report; and (2) To facilitate quality assurance and/or GLP compliance inspections of the study. These purposes can be accomplished by identifying one key location (page) in the report where each requirement has been satisfied. When a specific requirement has been addressed more than once, it is not necessary to identify all such locations. When a GLP report requirement is not applicable for a specific study, the letters NA should be inserted in the page column.



THE PROCTER & GAMBLE COMPANY

MIAMI VALLEY LABORATORIES

P. O. BOX 39175
CINCINNATI, OHIO 45247

FROM: The Quality Assurance Unit

DATE: February 13, 1981

TO: Study File

RETENTION LIMIT: NON-DISCRETIONARY

SUBJECT: Quality Assurance

The following study was reviewed:

LABORATORY: Procter & Gamble Company
BTF Miami Valley Laboratories
P. O. Box 39175
Cincinnati, OH 45247

DIVISIONAL REQUEST DOCUMENT: W0414

TYPE OF STUDY: Acute Percutaneous Toxicity

SAMPLE NO.: W0414.01

PORTION(S) OF STUDY REVIEWED:	REVIEWED BY:	DATE(S) OF REVIEW:
Protocol	N. E. Gilman	12/4/80
Data Analysis	L. K. Klahn	1/5/81
Final Report	S. S. Koehler	2/13/81

The study was reviewed by the QAU and the findings of the review were reported to the Facility Management and the Study Director.

The final study report was reviewed for inaccuracies and procedural compliance. The results reflect the raw data of the nonclinical safety study.

N E Gilman 2/19/81
Quality Assurance Unit Coordinator - Date

QAUQA

Acute Percutaneous Toxicity

(M0414; YE-360-A; P80-080)

Summary and Conclusions

The acute percutaneous toxicity LD₅₀ of M0414 was found to be <2 ml/kg. All animals receiving the single dose of 2 ml/kg died within 7 days of treatment. The product produced severe dermal reactions which persisted until death. Signs of anorexia and general listlessness preceded the deaths. The cause of death, based on gross necropsy examination, is presumed to be associated with the severe primary cutaneous disease caused by the test substance and the pathophysiologic sequelae of the cutaneous disease (e.g., stress, anorexia, dehydration, etc.)

S.A. Najm
G. P. Wilson

NON-DISCRETIONARY

The Procter & Gamble Company, Research and Development Department Memorandum
 HAES Division

ACUTE PERCUTANEOUS TOXICITY (Rabbit) - APCT Toxicology File Reference: E-360-A;P80-180
 Report of a biological test performed at NVL. Submitter's File Reference: W0414

during the period 12/30/80 - 1/5/81
 according to the attached protocol

Date of Report: 1/21/81

Substance(s) tested:

TSIN

Description

W0414.01

Ethoquad C-12

Test requested by M. C. Cheng

Paper 1936201

Division Notebook Ref.

Strain and source of animals: New Zealand Albino Rabbits (Dutchland)

The concentration of substance dosed is expressed as ()% w/w; ()% w/v; ()% v/v;
 (x) other: undilute

The concentration and amount of substance dosed are expressed as:
 (X) sample as rec'd; () active, calculated from ___% active in rec'd sample;
 () other:

Test Outline and Results

Test Substance Code	Conc./ Dose	Abraded Skin Dead/Total	Intact Skin Dead/Total	Average Weight of Survivors, g		LD ₅₀
				Initial	Final	
W0414.01	Undilute 2 ml/kg	3/3 —	— 3/3	3011 2998	* *	< 2 ml/kg

*Due to death, no final body weights were recorded.

Remarks:

There were severe erythematous reactions (6 of 6 sites), slight edema (6 of 6 sites), slight (2 of 6 sites) to moderate atonia (2 of 6 sites) and eschar (6 of 6 sites) produced by the test substance. Signs of anorexia were evident for each animal by day 2. Beginning on day 4, surviving animals showed signs of listlessness (very weak). All animals in the study had died within 7 days of treatment. Individual animal skin and health observations, initial body weights and gross necropsy findings are attached.

R. Frank
 Technician - R. Frank

D. A. Nixon
 Study Director - G. A. Nixon

jp:APCT4

4

Table 1

Individual Body Weights (gram)
W0414.01

<u>Animal/Sex</u>	<u>Initial</u>	<u>Final</u>
2922M	3089	•
2927M	3010	•
2908F	2933	•
2924M	3294	•
2910F	2866	•
2912F	2835	•

*Died prematurely, no final body weight.

APCT4/jp

ACUTE PERCUTANEOUS TOXICITY

STUDY #: YE 360 A DID #: WD 414 TSIN W0414.01
 STUDY TECHNICIAN: Richard [unclear]
 STUDY DIRECTOR: A. G. [unclear] UG/TI
 ANIMAL #: 2927 SEX (M or F): M
Factory # 180-080

STANDARD PROCEDURE #: C10
 DOSAGE LEVEL: 200/100 AS RECEIVED:
 CONCENTRATION: 100/100
 ANIMAL SOURCE/SPECIES: Whitehead's [unclear] DILUTION: ✓

DATE: 12/20/72 INITIALS: RF BODY WT (g): 3010 BALANCE: 11/16/70 TIME CLIPPED: 8:12 AM ABRASED(A)/INTACT(I): A TOTAL DOSED (TEST SUBSTANCE AND VEHICLE): 10.34 ml

DATE: 12/21/72 TIME: 1:30 PM TOTAL DOSED (TEST SUBSTANCE AND VEHICLE): 6.0 ml
 SKIN OBSERVATIONS*: 12/21/72 UG/TI: 1-3-17 1-4-11
 ERYTHEMA: 3 3 3 +
 EDEMA: 1 1 1
 ATONIA: 0 1 1 +
 DESQUAMATION: 0 0 0 0
 FISSURING: 0 0 0 0
 ESCHAR: Y Y Y Y
 EXFOLIATION: N N N N
 MONK'S INITIALS: RF VB AB RF RF

SKIN OBSERVATIONS*	12/21/72	12/21/72	12/21/72	1-3-17	1-4-11
ERYTHEMA	3	3	3	+	
EDEMA	1	1	1		
ATONIA	0	1	1	+	
DESQUAMATION	0	0	0	0	
FISSURING	0	0	0	0	
ESCHAR	Y	Y	Y	Y	
EXFOLIATION	N	N	N	N	
MONK'S INITIALS	RF	VB	AB	RF	RF

* Code for evaluating skin reactions is found in protocol
 Comments: + Could not 1-c grade because of total necrosis.

ACUTE PERCUTANEOUS TOXICITY

STUDY #: YE 360A ORD #: W0414 TSIN W0414.01 STANDARD PROCEDURE #: C10
 STUDY TECHNICIAN: Rashad Khan DOSAGE LEVEL: 2ml/kg AS RECEIVED: DILUTION: -
 STUDY DIRECTOR: Richard Anderson (10/2/71) CONCENTRATION: 2.5mg/ml
 ANIMAL #: 2924 SEX (M OR F): M ANIMAL SOURCE/SPECIES: White Male Rabbies # 100-080

DATE: 12/21/81 INITIALS: RF BODY WT(G): 3294 BALANCE: MV16303 TIME CLIPPED: 8:15 AM ABRASED(A)/INTACT(I): I TIME TREATED (TEST SUBSTANCE AND VEHICLE): 10:41 AM TOTAL DOSED: 6.6 ml

Time of removal of wrapping: 10:41 AM 12/21/81 RF

DATE	12/21	1/1/82	1/11/82	1-18-82	1-24-82															
SKIN OBSERVATIONS*																				
ERYTHEMA	3	3	3	+																
EDEMA	1	1	1	1																
ATONIA	0	2	2	+																
DESQUAMATION	0	0	0	0																
FISSURING	0	0	0	0																
ESCHAR	Y	Y	Y	Y																
EXFOLIATION	N	N	N	N																
WORKER'S INITIALS	RF	AB	AB	RF	RF															

* Code for evaluating skin reactions is found in protocol

Comments: + could not be graded because of total necrosis.

General Health Observations
(Excluding Skin)

Study # YE 360-A
TWIN W0414.01

Date	10/30/10		10/31/10		11/1/10		11/2/10		11/3/10		11/4/10		11/5/10		11/6/10		11/7/10		11/8/10		11/9/10		11/10/10		
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
Animal #																									
2922M	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
2927M	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
2908F	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
2924M	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
2910F	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
2912F	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Initials	RE	RE	RE	RE	RE	RE	RE	RE	RE	RE	RE	RE	RE	RE	RE	RE	RE	RE	RE	RE	RE	RE	RE	RE	RE

N = no abnormalities present; A = abnormalities noted, make detailed observation below
* Time recorded is the time the first animal was observed

* animal not eating 11/30 AB 11/40 AB
* animal appear very weak 11/30 AB

INTERDEPARTMENTAL CORRESPONDENCE

FROM R. J. Rinkler/A. G. Adkins
TO C. A. Nixon
SUBJECT PATHOLOGY REPORT FOR P80-080;
DND W0414; TSIN W0414.01;
NOTEBOOK YK-360A

DATE January 12, 1961
RETENTION LIMIT NON-DISCRETIONARY
ATTENTION

I. INTRODUCTION

Gross necropsies were conducted following the premature deaths of 6 female and male New Zealand white rabbits representing the total number of animals used in an acute percutaneous toxicity study. The purpose of this study was to determine the skin irritancy and systemic toxicity of W0414.01 when this substance is applied to abraded and intact skin.

II. CONCLUSION

Treatment of the intact and abraded skin of rabbits with test substance W0414.01 produced severe superficial necrotizing dermatitis. Death of all six animals is presumed to be associated with the severe primary cutaneous disease caused by the test compound and the pathophysiologic sequelae of the cutaneous disease (e.g. stress, anorexia, dehydration, etc.).

III. MATERIALS AND METHODS

A. Experimental Design Summary:

Type of Study:	Acute Percutaneous Toxicity
Species:	Rabbit
Strain:	New Zealand white
Sex:	Female and Male
Initial Weight Range:	2.0-3.5 kg
Test Substance:	W0414.01
Route of Exposure:	Applied to abraded or intact skin
Dose:	2 ml/kg of the undiluted substance

Animal Group Assignment:

<u>Animal No./Sex</u>	<u>Treatment</u>
2922/M, 2927/M, 2908/F	2 ml/kg Undiluted W0414.01 applied to abraded skin
2924/M, 2910/F, 2912/F	2 ml/kg Undiluted W0414.01 applied to intact skin

B. Necropsy: Postmortem examinations were conducted by R. J. Kinkler (Pathologist and Prosecutor) and W. E. Wyder (Prosecutor and Coordinator).

At this time, gross morphologic alterations were recorded.

IV. RESULTS/DISCUSSION

The treatment of intact and abraded skin of rabbits with W0414.01 resulted in severe superficial necrotizing dermatitis. In some animals the skin lesions extended beyond the treatment site due to gravitational flow of the test material resulting in involvement of substantial amount of the skin over the trunk of the body (i.e., abdominal skin also had severe superficial necrotizing dermatitis). Death of all six animals is presumed to be associated with severe cutaneous disease and its pathophysiologic sequelae. The presumptive cause of death was dehydration, circulatory collapse and shock.

R. J. Kinkler
R. J. Kinkler

A. G. Adkins
A. G. Adkins

sch/P80-080

P80-080

GROSS LESION INCIDENCE BY TREATMENT

Gross Observations	Animals With Abraded Skin (n=3)	Animals With Intact Skin (n=3)
Feces surrounding the anus	2	2
Yellow-tinged mucus around mouth	0	1
Blood-tinged mucus around the mouth	0	1
Treatment area skin - necrotic/ indurated	3	3
Ventral abdominal skin necrotic/ indurated	1	1
Little or no ingesta in stomach/ intestine	3	3
Ulcerations with hemorrhage in stomach wall	0	1
Dehydrated cecal contents	3	2
Hemorrhage in cecal wall	2	2
Gall bladder distended	3	2
Hemorrhage in colon wall	1	0
Small firm and/or malformed fecal pellets in colon	3	1
Postmortem lividity of the abdomen	0	1
Heart blood is very dark and viscous, and did not clot	0	1
Lung is edematous and heavy	0	1

P80-080

GROSS NECROPSY FINDINGS BY INDIVIDUAL ANIMAL

An. #/Sex/Skin	Date of Death	Gross Necropsy Findings
2922/M/Abraded	1/4/81	<p>Dried fecal pellets in the hair around the anus. Small malformed fecal pellets in the colon. Dehydrated cecal contents. Hemorrhages in the cecal wall. Little or no ingesta in the stomach and small intestine. Gall bladder distended. Treatment area skin is necrotic and indurated. Excess test material on ventral abdomen.</p> <p>Probable Cause of Death: Moderate to severe dehydration with circulatory collapse secondary to stress of treatment.</p>
2908/F/Abraded	1/2/81	<p>Treatment area skin is necrotic and indurated. Hemorrhages in the cecal wall. Dehydrated cecal content. Little or no ingesta in the small intestine. Gall bladder is distended. Small, firm malformed pellets in the colon. Excess test material on ventral abdomen.</p> <p>Probable Cause of Death: Moderate to severe dehydration with circulatory collapse secondary to stress of treatment.</p>
2927/M/Abraded	1/4/81	<p>Dried feces around the anus. Treatment area skin is necrotic and indurated. Ventral abdominal skin necrotic and indurated. Very firm pellets in the distal colon. Dehydrated cecal contents. Hemorrhages in the cecal wall. Little or no ingesta in the stomach and small intestine. Gall bladder distended. Excess test material on ventral abdomen.</p> <p>Probable Cause of Death: Moderate to severe dehydration with circulatory collapse secondary to stress of treatment.</p>

P80-080

GROSS NECROPSY FINDINGS BY INDIVIDUAL ANIMAL

An. #/Sex/Skin	Date of Death	Gross Necropsy Findings
2912/F/Intact	1/5/81	<p>Treatment area skin is indurated. Feces stained hair around anus. Cecal contents dehydrated. There is very little ingesta in the stomach and small intestine. Heart blood is very dark and viscous and did not clot. Gall bladder is distended with bile. Blood-tinged mucus around the mouth. Excess test material on the skin.</p> <p>Probable Cause of Death: Moderate to severe dehydration with circulatory collapse secondary to stress of treatment.</p>
2910/F/Intact	1/4/81	<p>Treatment area skin is necrotic and indurated. Ventral abdominal skin is necrotic and indurated. Dried feces around the anus. Small, malformed feces in the distal colon. Very firm malformed fecal pellets. Hemorrhages in the cecal wall. Cecal contents are well hydrated (normal). Little or no ingesta in the stomach or small intestine. Gall bladder is distended. Right lung is edematous and heavy. Excess test material on skin.</p> <p>Probable Cause of Death: Moderate to severe dehydration with circulatory collapse secondary to stress of treatment.</p>
2924/M/Intact	1/3/81	<p>Yellow-tinged mucus around the mouth. Treatment area skin is necrotic and indurated. Postmortem lividity of the abdomen. Several paint brush-type hemorrhages in the cecal wall. Little or no ingesta in the stomach or small intestine. Ulcerations with hemorrhage in the stomach wall. Dehydrated cecal contents. Excess test material present on ventral abdomen.</p> <p>Probable Cause of Death: Moderate to severe dehydration with circulatory collapse secondary to stress of treatment.</p>

INTERDEPARTMENTAL CORRESPONDENCE

FROM Operations Section DATE December 2, 1980
TO G. A. Nixon RETENTION LIMIT
SUBJECT Miami Valley Laboratories - BTP ATTENTION
STUDY PLACEMENT AUTHORIZATION

This is to authorize you to carry out the following study according to the attached protocol. This letter should be considered a part of the protocol.

Notice: This study is not expected to be submitted to a regulatory agency. While it should not be listed on the Test Facility's master list of regulated studies, the stipulations of this protocol are to be implemented in conformance with all other principles of the Good Laboratory Practices Regulations (21 CFR, Part 58).

Test: Acute Percutaneous Toxicity
Protocol No.: C10 Issue Date: May 1, 1980
Test Substance No.: W0414.01 Doc. Req. No.: W0414
Physical Form: Liquid

Unofficial written results or verbal results are needed by January 30, 1980.

Matters involving the scientific aspects of the work can be handled directly with the Divisional Toxicologist. All unused samples are to be returned to the Divisional Toxicologist at the following address:

Dr. M. C. Cheng
Winton Hills Technical Center - Room F2N44
Telephone No. 8-8-6535

Complete both copies of the attached protocol by adding the study cost, your study number, and proposed start and completion dates. The Study Director should sign and date both copies. Retain one copy and return one copy to the BTP's Quality Assurance Unit.

H. A. Durner / WRC

H. A. Durner
Human & Environmental Safety Division

mh

cc: Quality Assurance Unit
M. C. Cheng

INTERDEPARTMENTAL CORRESPONDENCE

FROM
TO
SUBJECT

Operations Section - NYL
NON-CLINICAL STUDY - REGULATORY
STATUS

DATE
RETENTION LIMIT
ATTENTION

Notifications pertaining to: DRD# W0 414
TSIR# W0 414.01

1. Studies requested on the above document:
 - are expected to be submitted to the following regulatory agencies: _____
 - are not expected to be submitted to a regulatory agency. (Boxes #3 and #4 below need not be checked.)
2. - The test substance has been characterized and results are shown on the test substance characterization report which accompanies the DRD.
3. - The method of synthesis fabrication or derivation of the test substances has been documented. (Required for regulated studies)
4. - Stability testing has been done or will be done on the test substance. (Required for regulated studies)

Principal Investigator: M. J. C. [Signature]
Date: 12/1/80

THE PROCTER & GAMBLE COMPANY

PROTOCOL NO. C10

Acute Percutaneous Toxicity

Issue Date: May 7, 1980
Supersedes Issue Dated: January 1, 1980

Test Substance Identification Number (TSIN) # W0 414-01

Divisional Request Document Number (DRD) # W0 414

Sponsor: The Procter & Gamble Company
Cincinnati, Ohio

Testing Facility:
(To be filled in by
Operations Section)

The Procter & Gamble Company
Miami Valley Laboratories - RTP
Cincinnati, Ohio 45247

Study # YE-360-R
(To be filled in by
Testing Facility)

Purpose:

To determine the relative skin irritancy and systemic toxicity of a test substance when this substance is applied to the skin.

Justification for
Selection of Test
System:

Historically, the New Zealand White rabbit has been the animal of choice due to the large amount of background information on this species.

Route of Administration
of Test Substance and
Reason for Choice:

Place on clipped area of intact and abraded skin under occlusive dressing. Historical. Based on Draize procedure.

Diet and/or Water
Analysis Required:

None (no known contaminants expected which would interfere with this study)

Records to be
Maintained:

All records that would be required to reconstruct the study and demonstrate adherence to protocol.

PROTOCOL NO. C12 (cont'd)

Acute Percutaneous Toxicity

Issue Date: May 1, 1980

Test Substance(s) TSIN #	DND Number	Description		Expiration Date
		Color	Physical Form	
W0414.01	W0414	Dark yellow oil	Liquid	Nov. 1981

Storage Conditions: (Check one)

- Room temp. (60-80°F) Refrigerator (about 40°F) Freezer (<30°F)
- Other

Hazards: (Check one)

- None known. Take ordinary precautions in handling.
- As follows: *Flash point 125°F (see per TSCA)*

Special Instructions: (Check one)

- None
- As follows:

Dose Preparation: (Check appropriate box)

- Dose undiluted
- Dose as a _____% (w/w) solution/suspension
- Dose as a _____% (w/v) solution/suspension
- Dose per special instructions

Vehicle: _____ * Dissolve or suspend the test substance in the vehicle at the required concentrations and record the quantities mixed.

*A vehicle control should be [], should not [], included in this study. If included, the vehicle control should be tested concurrently with the test substance.

PROTOCOL NO. C10 (cont'd)

Acute Percutaneous Toxicity

Issue Date: May 1, 1980

Dosing

Instructions:

Weigh animals just prior to dosing to determine the total volume and/or weight of test substance to be applied.

- Dose at 2 gm/kg of the test substance as received
- Dose at 2 gm/kg of the required solution/suspension
- Dose at 2 ml/kg of the test substance as received
- Dose at 2 ml/kg of the required solution/suspension
- Other

Animals:

Each test group will consist of six (6) New Zealand White rabbits (3 males and 3 females) weighing 2.0-3.5 kg.

Animal Care:

Follow the approved Standard Operating Procedures of the Test Facility. (Acclimation period must be a minimum of seven (7) days.)

Environmental Conditions:

Follow the approved Standard Operating Procedures of the Test Facility.

Animal Identification:

Follow the approved Standard Operating Procedures of the Test Facility.

Procedure:

Clip the back of each animal from shoulder to rump with a small animal clipper. The skin of three animals is left intact and the skin of the other three is abraded with an electric clipper blade or other appropriate device so as to penetrate the horny layer of the epidermis without causing bleeding. Each abraded and intact skin group shall have at least one (1) animal of each sex.

Spread the test substance over the clipped area. Cover with a layer of 8-ply gauze, rubber dam and several wrappings of 3-inch Elastoplast tape or equivalent wrapping material. Restrain the animal in appropriate harness or collar to prevent it from removing the wrappings. Dry or powdered substances are placed directly onto the gauze. The gauze containing the dry test material is spread over a layer of rubber dam and wrapping tape. Place the animal on his back over the test substance and secure the wrapping tape around the trunk.

After 24 hours, remove the harness or collar, uncover the test site, remove the test substance with wet disposable gauze, paper towel, or equivalent. Observe

22-1
3
AUG

0026

Acute Percutaneous Toxicity

Issue Date: May 1, 1980

Procedure (cont'd):

daily for next 14 days for signs of skin irritation using the attached scale (Appendix 1). Observe twice daily for morbidity, and mortality. On the 14th day, count, weigh, and sacrifice the surviving animals. Weighing animals at 7 days is optional.

Necropsy animals that died during study and all surviving animals and examine grossly for any abnormalities. Perform the necropsy following the Test Facility's Standard Operating Procedures. Record all gross necropsy findings.

Protocol Changes:

If it becomes necessary to change the approved protocol, verbal agreement to make this change should be made between the Study Director and the Sponsor. As soon as practical, this change and the reasons for it should be put in writing and signed by both the Study Director and the Principal Investigator. This document is then attached to the protocol as an addendum.

Report:

Report should include how study was conducted, dates of study initiation and termination, and the individual animal observations including deaths, if any, degree of skin irritation as a function of time, body weights, signs of gross systemic effects and necropsy observations. If no deaths are observed at the 2 ml/kg or 2 gm/kg dose level, the LD₅₀ value is reported as greater than 2 ml (liquids) or 2 gm (solids or semi-solids) per kg of body weight. If deaths were observed at the 2 ml/kg or 2 gm/kg dose level, additional dose levels may be requested to produce a sufficient number of deaths to calculate an LD₅₀ value. If additional dose levels are not requested, the LD₅₀ value will not be reported.

Sponsor: _____

M. J. C. King
Principal Investigator

Date Approved by Principal Investigator

Nov. 12, 1980

Proposed Starting Date: _____

12/30/80

Proposed Completion Date:
(Final Report Available)

1/13/81

2/10/81

Study Director: _____

R. A. King

Date: _____

12/11/80

Study Cost: _____

\$ 750

)To be completed
)by the Test
)Facility

APPENDIX 1

SCALE FOR EVALUATING SKIN REACTIONS

Erythema

- 0 - None
- 1 - Slight (barely perceptible)
- 2 - Moderate (well defined)
- 3 - Severe (best red)

Edema

- 0 - None
- 1 - Slight (barely perceptible to well defined by definite raising)
- 2 - Moderate (raised approximately 1 mm)
- 3 - Severe (raised more than 1 mm)

Atonia (not including eschar area)

- 0 - Normal
- 1 - Slight (impairment of elasticity)
- 2 - Moderate (slow return to normal)
- 3 - Marked (no elasticity)

Desquamation (not including eschar area)

- 0 - None
- 1 - Slight (slight scaling)
- 2 - Moderate (scabs and flakes)
- 3 - Marked (pronounced flaking with denuded areas)

Fissuring

- 0 - None
- 1 - Slight (definite cracks in epidermis)
- 2 - Moderate (cracks in dermis)
- 3 - Marked (cracks with bleeding)

Eschar

- N - No
- Y - Yes

Exfoliation (sloughing of the eschar tissue)

- N - No
- Y - Yes

TEST SUBSTANCE CHARACTERIZATION REPORT (TSCR)

Non-confidential
See 1 of 2

Test Report Number/TSIN MD114/MD114 01

Principal Investigator Michael C. Cheng, Ph.D.
(Name)

ORIG. SECT. NO.
ORIG. ASSOC. DIR.
9. 11. 82
PRJ. SECT. OR DEPT. HEAD

Name of Product or Ingredient (or code designation) Ethoquad C-12

Maker's Notebook Ref. (including Production Code if available) 1036701

Physical Form liquid Color yellow Density 0.969 (25°C)

Solubility Completely soluble in water at 20°C Sample Expiration Date 1/1/82

Recommended Storage Conditions Store at room temperature in non-corrosive container

Hazards (i. e. flammability, toxic gases) Flash point 135°F

Social Information

Component	Nominal Level (% by Wt.)	Formulated Composition			Supplier	Lot Number (a) or Notebook Ref.
		Acceptable (a) Range	Stock Code No.			
Ethoquad C-12	75					
Isopropyl Alcohol	25					

The above information provided by:

TEST SUBSTANCE CHARACTERIZATION REPORT (TSCR)

3 of 3

Test Substance Identification Number W0414.01

Analyzed Composition
(if available)

<u>Submitted</u>	<u>Submitter Code No.</u>	<u>Component or Property</u>	<u>Measured Value</u>	<u>Testing Laboratory</u>
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See attached IR Spectrum

Analytical Information Verified By:

<u>Name</u>	<u>Signature</u>	<u>Date</u>
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This substance is accepted for safety testing.

<u>Project Leader</u>	<u>Name</u>	<u>Signature</u>	<u>Date</u>
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W0414.01 M. C. (by) 11/12/00

