CODING FORM FOR SRC INDEXING REVISED 10/15/86

Microfiche No.		
OTS0520783		
New Doc I.D.	**Old Doc I.D.**	
86-890001277		
Date Produced	**Date Recieved**	**TSCA section**
7/28/72	7/24/89	8D
Submitting Organization		
HOECHST CELANESE CORP		
Contractor		
INDUSTRIAL BIO-TEST LABS INC		
Document Title		
PRIMARY SKIN IRRITATION TESTS WITH EIGHTEEN MATERIALS IN ALBINO RABBITS WITH COVER LETTER DATED 061589		
Chemical Category		
ETHYL ACRYLATE (140-88-5)		

86-890001277

Hoechst Celanese

Chemical Group
Hoechst Celanese Corporation
1250 West Mockingbird Lane
PO Box 569320
Dallas, TX 75356-9320
214 689 4000

CJS-156-89

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Document Processing Center (TS-790)
Office of Toxic Substances
Environmental Protection Agency
Room L-100
401 M Street, SW
Washington, D. C. 20460

Attention: Section 8(d) Reporting

Dear Sir/Madam:

On behalf of Hoechst Celanese Chemical Group, Inc. , 1250 West Mockingbird Lane, Dallas, Texas 75247, listed below and attached are studies for ethyl acrylate (2-propionic acid, ethyl ester), CAS No. 140-88-5.

In addition to the attached studies, the following study is in progress:

Study: Acute Dermal Limit Test in Rats
Start Date: October 4, 1988
Purpose: Obtain Material Safety Data Sheet Information
Data to be Collected: Acute dermal toxicity in rabbits
Anticipated Finish Date: November, 1989
Laboratory Name and Address: Bio/Dynamics, Inc., Mettlers Road, East Millstone, NJ 08873

ATTACHED STUDIES

Project No./Lab	Test
20988/Litton Bionetics, Inc.	Mutagenicity Evaluation of Ethyl Acrylate in the Ames Salmonella/Microsome Plate Test
A1854/Industrial Bio-Test Laboratories, Inc.	Primary Skin Irritation in Albino Rabbits
20988/Litton Bionetics, Inc.	Mutagenicity Evaluation of Spent Acid in the Ames Salmonella/Microsome Plate Test

Hoechst

	In addition to ethyl acrylate, the mixture utilized for the Spent Acid Ames test contained the following chemicals: Ethyl hydrogen sulfate Sulfuric acid Acrylic acid Ethanol Diethyl sulfate Heavy ends
Rohm & Haas Company	Two-week Gavage Study of Ethyl Acrylate in Rats
Toxicology Research Laboratory, Dow Chemical	Pathologic Findings in Rats Exposed by Inhalation to Vapors of Ethyl Acrylate for Six Months and Then Held for a Recovery Period of Three Months
Toxicology Research Laboratory, Dow Chemical	Pathologic Findings in Rats Exposed by inhalation to Vapors of Ethyl Acrylate for 12 Months Including a Group Which was Exposed to 225 PPM for Six Months and Then Held for a Recovery Period of Six Months
Toxicology Research Laboratory, Dow Chemical	Pathologic Findings in Mice Exposed by Inhalation to 225 PPM Ethyl Acrylate for Six Months and Subsequently Held for a Recovery Period of Three Months

In addition to these studies, we have other ethyl acrylate studies in our file. However, copies of these studies are being submitted to the Office of Toxic Substances by Rohm & Haas Company.

Very truly yours,

C. J. Schaefer
Manager, Product Safety
Hoechst Celanese Chemical Group, Inc.
1250 West Mockingbird Lane
Dallas, Texas 75247
214-689-4075

CJS/ds
Attachments

David Barrett
00012

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REPORT TO

THE CELANESE CHEMICAL COMPANY

PRIMARY SKIN IRRITATION TESTS WITH
EIGHTEEN MATERIALS
IN ALBINO RABBITS

JULY 28, 1972

IBT NO. A1854

I. Introduction

At the request of The Celanese Chemical Company, primary skin irritation tests* were conducted with eighteen test materials identified as:

1. Acetaldehyde, Lot No. 3697
2. Acetic Acid, Glacial, Lot No. 3700
3. Crotonaldehyde
4. Ethylene Oxide
5. Formaldehyde, 37%
6. 6',6-Hexamethylenediamine, anhydrous, Lot No. 04151
7. Hexamethyleneimine, Lot No. 0727
8. Methyl Formcel, 55% Formaldehyde
9. Vinyl Acetate, Lot No. 3696
10. Acetic Acid, 56%, Lot No. 3698
11. Acetic Acid, 86%, Lot No. 3699
12. Ethyl Hexyl Acrylate
13. Normal Butyl Acrylate
14. Ethyl Acrylate
15. Chemstar
16. Methyl Acrylate
17. Propionic Acid
18. Butyric Acid

* DOT tests were conducted in accordance with 19 CFR, Chapter I, Sec. 173.40 as amended in Federal Register, Vol. 37, No. 57, March 23, 1972.

Industrial **BIO-TEST** *Laboratories, Inc.*
1810 FRONTAGE ROAD
NORTHBROOK, ILLINOIS 60062

July 2, 1975

Ms. Judith A. Tins
Coordinator, Toxicological Information
Celanese Chemical Company
1211 Avenue of the Americas
New York, New York 10036

Dear Ms. Tins:

Re: IBT No. A1854 - Primary Skin Irritation Tests with Eighteen Materials in Albino Rabbits

As per your request, we are enclosing three copies of the above mentioned study.

Very truly yours,

J. C. Calandra

J. C. Calandra
President

JCC:bp

Industrial **BIO-TEST** *Laboratories, Inc.*
1810 FRONTAGE ROAD
NORTHBROOK, ILLINOIS 60062

REPORT TO

THE CELANESE CHEMICAL COMPANY

PRIMARY SKIN IRRITATION TESTS WITH EIGHTEEN MATERIALS IN ALBINO RABBITS

JULY 28, 1972

IBT NO. A1854

II. Summary

The results of the primary skin irritation tests are summarized in Table I.

Respectfully submitted,

INDUSTRIAL BIO-TEST LABORATORIES, INC.

Report prepared by:

Kenneth Ebbens, B.S.
Assistant Toxicologist
Acute Toxicity

Report approved by:

Carmen Mastri, B.S.
Senior Group Leader
Acute Toxicity

M. L. Keplinger, Ph.D.
Manager, Toxicology

smc:psh

REPORT TO

THE CELANESE CHEMICAL COMPANY

PRIMARY SKIN IRRITATION TESTS WITH EIGHTEEN MATERIALS IN ALBINO RABBITS

JULY 28, 1972

IBT NO. A1854

I. Introduction

At the request of The Celanese Chemical Company, primary skin irritation tests* were conducted with eighteen test materials identified as:

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11. Acetic Acid, 86%, Lot No. 3699
12. Ethyl Hexyl Acrylate
13. Normal Butyl Acrylate
14. Ethyl Acrylate
15. Chemster
16. Methyl Acrylate
17. Propionic Acid
18. Butyric Acid

* DOT tests were conducted in accordance with 19 CFR, Chapter I, Sec. 173.40 as amended in Federal Register, Vol. 37, No. 57, March 23, 1972.

TABLE I

Summary of Results

	Test Material	Results: Mean Primary Irritation Score	Classification
1.	Acetaldehyde, Lot No. 3697	2.2/8.0*	Not a Corrosive
2.	Acetic Acid, Glacial, Lot No. 3700	8.0/8.0	Corrosive
3.	Crotonaldehyde	8.0/8.0	Corrosive
4.	Ethylene Oxide	7.8/8.0	Corrosive
5.	Formaldehyde, 37%	2.8/8.0	Not a Corrosive
6.	6',6-Hexamethylenediamine, anhydrous, Lot No. 04151	8.0/8.0	Corrosive
7.	Hexamethyleneimine, Lot No. 0727	8.0/8.0	Corrosive
8.	Methyl Formcel, 55% Formaldehyde	8.0/8.0	Corrosive
9.	Vinyl Acetate, Lot No. 3696	3.0/8.0*	Not a Corrosive
10.	Acetic Acid, 56%, Lot No. 3698	6.8/8.0	Corrosive
11.	Acetic Acid, 86%, Lot No. 3699	7.2/8.0	Corrosive
12.	Ethyl Hexyl Acrylate	5.3/8.0	Not a Corrosive
13.	Normal Butyl Acrylate	6.5/8.0	Not a Corrosive
14.	Ethyl Acrylate	6.8/8.0	Not a Corrosive
15.	Chemstar	8.0/8.0	Corrosive
16.	Methyl Acrylate	8.0/8.0	Corrosive
17.	Propionic Acid	8.0/8.0	Corrosive
18.	Butyric Acid	8.0/8.0	Corrosive

* Erythema could not be evaluated at the four and 24-hour scoring intervals.

III. Investigational Procedure

The same procedure was employed for each test material.

Young albino rabbits of the New Zealand strain were used in the evaluation of the primary skin irritating properties of the test material. The test procedure was modeled after DOT*.

Prior to the application of the test material, the hair was clipped from the back and flanks of each rabbit. Two test sites located lateral to the midline of the back approximately ten centimeters apart were selected. One of the two sites was abraded by making four epidermal incisions, two perpendicular to the other two, while the other test site remained intact.

Exactly 0.5 ml of undiluted liquid or 0.5 g of dry solid was applied to each of the test sites on each rabbit. The test sites were immediately covered with two-inch square gauze patches. The patches were placed directly over the test sites and secured with masking tape. The trunk of each animal was then wrapped with plastic sheeting. The wrap held the patches in position and retarded evaporation of the test material during the four-hour exposure period.

At the end of four hours, the plastic wrappings and patches were removed. The intact and abraded test sites were examined and scored separately for erythema and edema on a graded scale of 0 to 4. After 24 and 72 hours, the sites were again scored.

* Department of Transportation, Hazardous Materials Regulations.

In evaluating the average irritation present, the mean scores for erythema and edema of the intact test sites after four, 24 and 72 hours were added. Similarly, the mean scores for erythema and edema of the abraded test sites after four, 24 and 72 hours were added. These two values were totaled and divided by six to obtain the mean primary irritation score. The scoring criteria for erythema and edema are shown in Table II.

The test material was then classified as a Corrosive or "Not" a Corrosive. A test material is classified corrosive if when tested on intact rabbit skin by the technique described in Title 21, Code of Federal Regulations, Sec. 191.11, the structure of the tissue at the site of contact is destroyed or changed irreversibly after an exposure period of 4 hours or less.

TABLE II

Primary Skin Irritation Test - Albino Rabbits

Scoring Criteria for Skin Reactions

Reaction	Description	Score
Erythema	Barely perceptible (Edges of area not defined)	1
	Pale red in color and area definable	2
	Definite red in color and area well defined	3
	Beet or crimson red in color	4
Edema	Barely perceptible (Edges of area not defined)	1
	Area definable but not raised more than 1 mm	2
	Area well defined and raised approximately 1 mm	3
	Area raised more than 1 mm	4
Injury in Depth	Escharosis, Necrosis	8
	Maximum Primary Irritation Score =	8

IV. Results

The results of the primary skin irritation tests are presented in Tables III - XX.

TABLE III

TEST MATERIAL: Acetaldehyde,
Lot No. 3697

Primary Skin Irritation Test - Albino Rabbits

Results

Animal Number	Irritation Scores for Abraded Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.	Irritation Scores for Intact Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.
1	*	4	*	2	*	0	*	4	*	2	*	0
2	*	4	*	1	*	0	*	4	*	1	*	0
3	*	4	*	4	*	1	*	4	*	4	*	1
4	*	4	*	4	0	0	*	4	*	4	0	0
5	*	4	*	1	2	0	*	4	*	1	1	0
6	*	1	*	1	1	0	*	1	*	1	1	0
Mean	*	3.5	*	2.2	1.0	0.2	*	3.5	*	2.2	0.7	0.2

Subtotal 6.9 6.6

Primary Irritation Score = 2.2

Key: Er. = Erythema
Ed. = Edema

* The test material stained the skin yellow precluding a valid erythema observation.

TABLE IV

TEST MATERIAL: Glacial Acetic Acid, Lot No. 3700

Primary Skin Irritation Test - Albino Rabbits

Results

Animal Number	Irritation Scores for Abraded Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.	Irritation Scores for Intact Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.
1	4	4*	4	4*	4	4**	4	4*	4	4*	4	4**
2	4	4*	4	4*	4	4**	4	4*	4	4*	4	4**
3	4	4*	4	4*	4	4**	4	4*	4	4*	4	4**
4	4	4*	4	4*	4	4**	4	4*	4	4*	4	4**
5	4	4*	4	4*	4	4**	4	4*	4	4*	4	4**
6	4	4*	4	4*	4	4**	4	4*	4	4*	4	4**
Mean	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Subtotal			24.0						24.0			

Primary Irritation Score = 8.0

Key: Er. = Erythema
Ed. = Edema

* Chemical burn.
** Entire area of site necrotic.

TABLE V

TEST MATERIAL: Crotonaldehyde

Primary Skin Irritation Test - Albino Rabbits

Results

Animal Number	Irritation Scores for Abraded Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.	Irritation Scores for Intact Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.
						*						*
1	4	4*	4	4*	4	4**	4	4*	4	4*	4	4**
2	4	4*	4	4*	-	-	4	4*	4	4*	-	-
		*		*		*		*		*		*
3	4	4**	4	4**	4	4**	4	4**	4	4**	4	4**
		*						*				
4	4	4**	-	-	-	-	4	4**	-	-	-	-
		*		*		*		*		*		*
5	4	4**	4	4**	4	4**	4	4**	4	4**	4	4**
		*		*		*		*		*		*
6	4	4**	4	4**	4	4**	4	4**	4	4**	4	4**
Mean	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Subtotal 24.0 24.0

Primary Irritation Score = 8.0

Note: Chemical burns were considered irreversible.
Key: Er. = Erythema
Ed. = Edema
* Chemical burns.
** Subdermal hemorrhages.

- = Animal died prior to this scoring observation.

TABLE VI

TEST MATERIAL: Ethylene Oxide

Primary Skin Irritation Test - Albino Rabbits

Results

Animal Number	Irritation Scores for Abraded Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.	Irritation Scores for Intact Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.
1	4	4*	4	4** *	4	4** *	4	4*	4	* 4** *	4	* 4** *
2	4	4**	4	4** *	4	4** *	4	4**	4	4** *	4	4** *
3	4	4*	4	4** *	4	4** *	4	4*	4	4** *	4	4** *
4	4	4*	4	4** *	4	4** *	4	4*	4	4** *	4	4** *
5	2	1*	4	4** *	4	4** *	2	3*	4	4** *	4	4** *
6	4	4*	4	4**	4	4**	4	4*	4	4**	4	4**
Mean	3.7	3.5	4.0	4.0	4.0	4.0	3.7	3.8	4.0	4.0	4.0	4.0
Subtotal			23.2						23.5			

Primary Irritation Score = 7.8

Note: Chemical burns were considered irreversible.
Key: Er. = Erythema
Ed. = Edema

* Subdermal hemorrhages.
** Chemical burns.

TABLE VII

TEST MATERIAL: Formaldehyde, 37%

Primary Skin Irritation Test - Albino Rabbits

Results

Animal Number	Irritation Scores for Abraded Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.	Irritation Scores for Intact Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.
1	2	0	2	0*	2	0	2	0	2	0*	2	0
2	2	3*	2	1	2	1	2	3*	2	1	2	1
3	1	3*	1	1	1	1	1	3*	1	1	1	1
4	2	4*	2	2	2	1	2	4*	2	2	2	1
5	2	2	2	0	1	0	2	2	2	0	1	0
6	2	1	1	0	1	0	2	1	1	0	1	0
Mean	1.8	2.2	1.7	0.7	1.5	0.5	1.8	2.2	1.7	0.7	1.5	0.5

Subtotal 8.4 8.4

Primary Irritation Score = 2.8

Key: Er. = Erythema
Ed. = Edema

* Focal areas of edema.

TABLE VIII

TEST MATERIAL: 6', 6-Hexamethylenediamine,
Anhydrous, Lot No. 04151

Primary Skin Irritation Test - Albino Rabbits

Results

Animal Number	Irritation Scores for Abraded Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.	Irritation Scores for Intact Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.
1	4	4*	4	4**	4	4**	4	4*	4	4**	4	4**
2	4	4*	4	4**	4	4**	4	4*	4	4**	4	4**
3	4	4*	4	4**	4	4**	4	4*	4	4**	4	4**
4	4	4*	4	4**	4	4**	4	4*	4	4**	4	4**
5	4	4*	4	4**	4	4**	4	4*	4	4**	4	4**
6	4	4*	4	4**	4	4**	4	4*	4	4**	4	4**
Mean	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Subtotal 24.0 24.0

Primary Irritation Score = 8.0

Key: Er. = Erythema
Ed. = Edema

* Chemical burn.
** Entire area of site necrotic.

TABLE IX

TEST MATERIAL: Hexamethyleneimine, Lot No. 0727

Primary Skin Irritation Test - Albino Rabbits

Results

Animal Number	Irritation Scores for Abraded Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.	Irritation Scores for Intact Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.
1	4	4*	4	4*	4	4**	4	4*	4	4*	4	4**
2	4	4*	4	4*	4	4**	4	4*	4	4*	4	4**
3	4	4*	4	4*	4	4**	4	4*	4	4*	4	4**
4	4	4*	4	4*	4	4**	4	4*	4	4*	4	4**
5	4	4*	4	4*	4	4**	4	4*	4	4*	4	4**
6	4	4*	4	4*	4	4**	4	4*	4	4*	4	4**
Mean	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Subtotal 24.0 24.0

Primary Irritation Score = 8.0

Key: Er. = Erythema
Ed. = Edema

* Chemical burn.
** Entire area of site necrotic.

TABLE X

TEST MATERIAL: Methyl Formcel, 55% Formaldehyde

Primary Skin Irritation Test - Albino Rabbits

Results

Animal Number	Irritation Scores for Abraded Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.	Irritation Scores for Intact Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.
1	4	4* *	4	4* *	4	4* *	4	4*	4	4* *	4	4* *
2	4	4**	4	4** *	4	4** *	4	4**	4	4** *	4	4** *
3	4	4**	4	4** *	4	4** *	4	4**	4	4** *	4	4** *
4	4	4**	4	4** *	4	4** *	4	4**	4	4** *	4	4** *
5	4	4**	4	4** *	4	4** *	4	4**	4	4** *	4	4** *
6	4	4**	4	4**	4	4**	4	4**	4	4**	4	4**
Mean	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Subtotal 24.0 24.0

Primary Irritation Score = 8.0

Key: Er. = Erythema
Ed. = Edema

* Chemical burns over entire site.
** Subdermal hemorrhages.

TABLE XI

TEST MATERIAL: Vinyl Acetate, Lot No. 3696

Primary Skin Irritation Test - Albino Rabbits

Results

Animal Number	Irritation Scores for Abraded Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.	Irritation Scores for Intact Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.
1	*	4	*	3	2	0	*	4	*	3	3	0**
2	*	4	*	3	2	0	*	4	*	3	2	0
3	*	4	*	4	2	2	*	4	*	4	2	2
4	*	4	*	3	*	0	*	4	*	3	*	0
5	1	0	1	0	1	0	1	0	1	0	1	0
6	1	0	1	0	1	0	1	0	1	0	1	0
Mean	1.0	2.7	1.0	2.2	1.6	0.3	1.0	2.7	1.0	2.2	1.8	0.3

Subtotal 8.8 9.0

Primary Irritation Score = 3.0

Key: Er. = Erythema
Ed. = Edema
* The test material stained the skin yellow precluding a valid erythema observation.
** Subdermal hemorrhages.

TABLE XII

TEST MATERIAL: Acetic Acid, 56%, Lot No. 3698

Primary Skin Irritation Test - Albino Rabbits

Results

Animal Number	Irritation Scores for Abraded Skin Sites at: 1 Hour Er.	1 Hour Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.	Irritation Scores for Intact Skin Sites at: 1 Hour Er.	1 Hour Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.
1	4	4*	4	4*	4	4*	4	4*	4	4*	4	4*
2	2	4	2	2	2	1	4	4*	4	4*	4	4*
3	4	4*	4	4*	4	4**	4	4*	4	4*	4	4**
4	4	4*	4	4*	4	4	4	4*	4	4*	4	4*
5	2	1	2	1	2	0	1	1	2	1	2	0
6	4	4*	4	4*	4	4*	4	4*	4	4*	4	4**
Mean	3.3	3.5	3.3	3.2	3.3	2.8	3.5	3.5	3.7	3.5	3.7	3.3

Subtotal 19.4 21.2

Primary Irritation Score = 6.8

Key: Er. = Erythema
Ed. = Edema

* Chemical burn.
** Focal necrosis.

TABLE XIII

TEST MATERIAL: Acetic Acid, 86%, Lot No. 3699

Primary Skin Irritation Test - Albino Rabbits

Results

Animal Number	Irritation Scores for Abraded Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.	Irritation Scores for Intact Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.
1	2	2	2	1	2	0	2	2	2	1	2	0
2	4	4*	4	4*	4	4*	4	4*	4	4*	4	4*
3	4	4*	4	4*	4	4**	4	4*	4	4*	4	4**
4	4	4*	4	4*	4	4*	4	4*	4	4*	4	4*
5	4	4*	4	4*	4	4*	4	4*	4	4*	4	4*
6	4	4*	4	4*	4	4**	4	4*	4	4*	4	4**
Mean	3.7	3.7	3.7	3.5	3.7	3.3	3.7	3.7	3.7	3.5	3.7	3.3

Subtotal 21.6 21.6

Primary Irritation Score = 7.2

Key: Er. = Erythema
Ed. = Edema

* Chemical burn.
** Deep necrotic areas.

TABLE XIV

TEST MATERIAL: Ethyl Hexyl Acrylate

Primary Skin Irritation Test - Albino Rabbits

Results

Animal Number	Irritation Scores for Abraded Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.	Irritation Scores for Intact Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.
1	3	3	3	2	3	0	3	3	3	2	3	0
2	3	3	4	4*	4	4*	3	3	4	4*	4	4*
3	3	3	3	2	2	0	3	3	3	2	2	0
4	3	3	3	2	2	0	3	3	3	2	2	0
5	3	3	3	3	3	2	3	3	3	3	3	2
6	3	3	3	3	2	1	3	3	3	3	2	1
Mean	3.0	3.0	3.2	2.7	2.7	1.2	3.0	3.0	3.2	2.7	2.7	1.2

Subtotal 15.8 15.8

Primary Irritation Score = 5.3

Key: Er. = Erythema
Ed. = Edema

* Superficial chemical burns.

TABLE XV

TEST MATERIAL: Normal Butyl Acrylate

Primary Skin Irritation Test - Albino Rabbits

Results

Animal Number	Irritation Scores for Abraded Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.	Irritation Scores for Intact Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.
1	4	4	4	4*	4	4**	4	4*	4	4*	4	4**
2	3	3	4	4*	4	4*	3	3	4	4*	4	4*
3	3	3	3	3	3	3	3	3	3	3	3	3
4	3	3	3	2	3	2	3	3	3	2	3	2
5	3	3	3	3	2	2	3	3	3	3	2	2
6	3	3	3	3	3	3	3	3	4	4*	4	4*
Mean	3.2	3.2	3.3	3.2	3.2	3.0	3.2	3.2	3.5	3.3	3.3	3.2

Subtotal 19.1 19.7

Primary Irritation Score = 6.5

Key: Er. = Erythema
Ed. = Edema

* Superficial chemical burns.
** Subdermal hemorrhages.

TABLE XVI

TEST MATERIAL: Ethyl Acrylate

Primary Skin Irritation Test - Albino Rabbits

Results

Animal Number	Irritation Scores for Abraded Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.	Irritation Scores for Intact Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.
						*						*
1	2	4	4	4*	4	4**	2	4	4	4*	4	4**
2	3	4	3	4	3	3	3	4	3	4	3	3
3	2	4	2	4	3	4	2	4	2	4	3	4
		*		*				*		*		
4	4	4**	4	4**	4	4*	4	4**	4	4**	4	4*
5	2	4	2	4	2	2	2	4	2	4	2	2
		*		*		*		*		*		*
6	4	4**	4	4**	4	4**	4	4**	4	4**	4	4**
Mean	2.8	4.0	3.2	4.0	3.3	3.5	2.8	4.0	3.2	4.0	3.3	3.5

Subtotal 20.8 19.8

Primary Irritation Score = 6.8

Key: Er. = Erythema
Ed. = Edema

* Chemical burns.
** Subdermal hemorrhages.

TABLE XVII

TEST MATERIAL: Chemstar

Primary Skin Irritation Test - Albino Rabbits

Results

Animal Number	Irritation Scores for Abraded Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.	Irritation Scores for Intact Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.
1	4	4*	4	4*	4	4*	4	4*	4	4*	4	4*
2	4	4*	4	4*	4	4*	4	4*	4	4*	4	4*
3	4	4*	4	4*	4	4*	4	4*	4	4*	4	4*
4	4	4*	4	4*	4	4*	4	4*	4	4*	4	4*
5	4	4*	4	4*	4	4*	4	4*	4	4*	4	4*
6	4	4*	4	4*	4	4*	4	4*	4	4*	4	4*
Mean	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Subtotal			16.0						16.0			

Primary Irritation Score = 8.0

Key: Er. = Erythema
Ed. = Edema

* Deep chemical burns.

TABLE XVIII

TEST MATERIAL: Methyl Acrylate

Primary Skin Irritation Test - Albino Rabbits

Results

Animal Number	Irritation Scores for Abraded Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.	Irritation Scores for Intact Skin Sites at: 4 Hours Er.	4 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.
1	4	4*	4	4**	4	4***	4	4*	4	4**	4	4***
2	4	4*	4	4**	4	4***	4	4*	4	4**	4	4***
3	4	4*	4	4**	4	4***	4	4*	4	4**	4	4***
4	4	4*	4	4**	4	4***	4	4*	4	4**	4	4***
5	4	4*	4	4**	4	4***	4	4*	4	4**	4	4***
6	4	4*	4	4**	4	4***	4	4*	4	4**	4	4***
Mean	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Subtotal 16.0 16.0

Primary Irritation Score = 8.0

Key: Er. = Erythema
Ed. = Edema

* Deep chemical burns.
** Subdermal hemorrhages.
*** Necrosis over entire site.

TABLE XIX

TEST MATERIAL: Propionic Acid

Primary Skin Irritation Test - Albino Rabbits

Results

Animal Number	Irritation Scores for Abraded Skin Sites at: 1 Hours Er.	1 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.	Irritation Scores for Intact Skin Sites at: 1 Hours Er.	1 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.
1	4	4*	4	4*	4	4*	4	4*	4	4*	4	4*
2	4	4*	4	4*	4	4*	4	4*	4	4*	4	4*
3	4	4*	4	4*	4	4*	4	4*	4	4*	4	4*
4	4	4*	4	4*	4	4*	4	4*	4	4*	4	4*
5	4	4*	4	4*	4	4*	4	4*	4	4*	4	4*
6	4	4*	4	4*	4	4*	4	4*	4	4*	4	4*
Mean	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Subtotal 16.0 16.0

Primary Irritation Score = 8.0

Key: Er. = Erythema
Ed. = Edema

* Deep chemical burns over entire site.

TABLE XX

TEST MATERIAL: Butyric Acid

Primary Skin Irritation Test - Albino Rabbits

Results

Animal Number	Irritation Scores for Abraded Skin Sites at: 1 Hours Er.	1 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.	Irritation Scores for Intact Skin Sites at: 1 Hours Er.	1 Hours Ed.	24 Hours Er.	24 Hours Ed.	72 Hours Er.	72 Hours Ed.
1	4	4*	4	4*	4	4*	4	4*	4	4*	4	4*
2	4	4*	4	4*	4	4*	4	4*	4	4*	4	4*
3	4	4*	4	4*	4	4*	4	4*	4	4*	4	4*
4	4	4*	4	4*	4	4*	4	4*	4	4*	4	4*
5	4	4*	4	4*	4	4*	4	4*	4	4*	4	4*
6	4	4*	4	4*	4	4*	4	4*	4	4*	4	4*
Mean	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Subtotal 16.0 16.0

Primary Irritation Score = 8.0

Key: Er. = Erythema
Ed. = Edema

* Deep chemical burns over entire site.

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