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Submitting Organization		
SHERWIN WILLIAMS CO		
Contractor		
HUNTINGDON RESEARCH CTR		
Document Title		
SUMMARY OF MUCOUS MEMBRANE (EYE) IRRITATIONS IN RABBITS TREATED WITH OLIN 58734 WITH ATTACHMENT AND COVER LETTER DATED 061289		
Chemical Category		
TOLUTRIAZOLE (29385-43-1)		



CONTAINS NO CBI

86-890000604

The Sherwin-Williams Company
101 Prospect Avenue, N.W.
Cleveland, Ohio 44115-1075

June 12, 1989

~~86-890000515~~ 591
THRU
~~86-890000626~~

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

ATTN: 8(d) Health and Safety Reporting Rule
(Notification/Reporting)

Dear Sir or Madam:

Re: 1,2,3-Benzotriazole - 95-14-7 &
Tolyltriazole - 29365-43-1

69 JUN 13 PM 12:58

During the ten-year period prior to April 13, 1989, the Sherwin-Williams Company manufactured the subject chemicals. These chemicals were added to 40 CFR 716.120 by publication in the Federal Register of February 28, 1989. The Sherwin-Williams's Chemicals Division manufactured these chemicals at its Cincinnati site. This product line and facility was sold to the PMC Specialties Group, Inc., effective July 1, 1985. Therefore, Sherwin-Williams is not subject to reporting under the Preliminary Assessment Information Rule, 40 CFR 712.30.

In compliance with 40 CFR 716.30, Judith A. Tins, Administrator, Product Safety, Sherwin-Williams Company, 101 Prospect Avenue, N.W., Cleveland, OH 44115, (216) 566-2919 has performed a search of the Sherwin-Williams files for health and safety studies on these two chemicals. She is the person who has responsibility for compliance with the Toxic Substances Control Act (TSCA) and maintains this type of information.

We are enclosing copies of the applicable studies on the above referenced chemicals. The specific chemical tested is indicated on the face of each study.

For reference:

- BT is benzotriazole
- BT-D is an unknown grade of benzotriazole
- Cobratec 99 is benzotriazole
- TT is tolyltriazole
- Cobratec TT-100 is tolyltriazole
- Cobratec TT-50-S is a 50% solution in water of the sodium salt of tolyltriazole
- Cobratec TT-35-I is a 35% solution of tolyltriazole in isopropanol.



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Washington, D.C. 20460

-2-

June 12, 1989

All unpublished studies that are known to Sherwin-Williams are in our possession, so we are not submitting any lists of studies as per 716.35, but are submitting copies of the actual studies. We have included a copy of a technical bulletin indicating physical and chemical properties of these two chemicals. We do not have copies of the tests to determine these properties.

I understand that this submission constitutes proper compliance with the 8(d) notice. If you have any questions about the enclosed materials, please contact the technical contact, Ms. Tins, at (216) 566-2919.

Submitted by:

John J. Gerulis, Director
Environmental, Health
and Regulatory Services
The Sherwin-Williams Company
101 Prospect Ave. N.W.
Cleveland, OH 44115-1075
(216) 566-2239

JJG/ct

Attach.

cc: J. A. Tins

KAPLAN
Maurice Avenue
Maspeth, New York 11378
Telephone: TWining 4-0800
Cable: Foodlabs, New York

REPORT

Submitted to: Olin Mathieson Chemical Corporation
Research Center
275 Winchester Avenue
New Haven, Conn. 06504

Date: January 26, 1968

Laboratory No. 88722

Sample: Pinkish grey granular material

(TOLUTRIAZOLE)
29385-43-1

Marking: Typewritten: "OLIN 58734"
Additional: "Printed: "No warranty of any kind, express or implied,
is made concerning the use of this product. User assumes all risk
and liability resulting from handling, use or application."

Examination Requested: Test for mucous membrane (eye) irritation employing
method recommended in Appraisal of Chemicals in Foods, Drugs,
and Cosmetics, Association of Food and Drug Officials of the
United States, 1959, p. 46.

Procedure:

Animals: 6 albino rabbits.

Doseage: 10 mg of powdered sample in right eye, without washout.

Maintenance conditions: Animals maintained in stocks for 6 hours
after dosage. Thereafter, individual housing with food and
water ad libitum.

Observations: Evaluation of degree of eye irritation at 24, 48, and 72
hours, as described in the Regulations.

Results:

See attached table. Eye pain was noted in 1 rabbit.

Cornea: Moderate opacity in small area in 3 on day 1, in 2 on day 2, and
in 1 on day 3.

Iris: Irritation in 1 on days 1, 2, and 3.

Conjunctiva: Lid redness slight in 6 on day 1, very slight in 2 on day 3.
Chemosis slight in 4 on day 1.
Discharge slight in 6 on day 1, very slight in 1 on day 3.

Conclusion: The above sample is slightly and transiently irritating to the eyes
of rabbits.



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88-890000604

FOOD AND DRUG RESEARCH LABORATORIES, INC.

[Signature]

Director - Biological Divisions

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nor the name of these Laboratories nor of any members of its staff, may be used in connection with the advertising or sale of any product or
process without written authorization.

Summary of Mucous Membrane (Eye) Irritations in Rabbits Treated with Olin 58734

Rabbit No. & Sex	Eye Irritation Score ²			Observations
	1	2	3	
2201 M	6	2	0	Lid redness: slight in 6 on day 1, very slight in 2 on day 3.
2202 M	23	2	0	
2203 M	45	24	24	
2204 F	4	0	0	Chomosis: slight in 4 on day 1. Discharge: slight in 6 on day 1, very slight in 1 on day 3. Iridical irritation: in 1 on days 1, 2, 3.
2205 F	20	12	2	
2206 F	10	4	0	Opacity: moderate in small a in 3 on day 1, in 2 on day 2, and in 1 on day 3. Eye pain in 1.

¹In right eye, 10 mg as received.

²Draize, J.H., Appraisal of the Safety of Chemicals in Foods, Drugs, and Cosmetic Association of Food and Drug Officials of the United States, 1959, p. 46. (Maximum intake score = 110).

Food and Drug Research Laboratories
INCORPORATED

MAR 27 1968

Maurice H. Rubin E. 55th Street
Maspeth, New York 11378
Telephone: TWining 4-6800
Cable: Foodlabs, New York

REPORT RECEIVED
FEB 28 1968



Submitted to: Olin Mathieson Chemical Corporation
Research Center
275 Winchester Avenue
New Haven, Connecticut 06504

Date: February 27, 1968

Laboratory No. 88722

Sample: Pinkish grey granular material

TOLUTRIAZOLE

Marking: Sample label typewritten: "OLIN 58734"
Printed: "No warranty of any kind, express or implied, is made concerning the use of this product. User assumes all risk and liability resulting from handling, use or application".

Examination Requested: Test for acute dermal toxicity employing method recommended in Appraisal of the Safety of Chemicals in Foods, Drugs, and Cosmetics, Association of Food and Drug Officials of the U. S., 1959.

Procedure:

Animals: Four albino rabbits per four levels in weight range of 2.2 to 3.6 kg depilated over the trunk.

Maintenance conditions: Trunk encased in sleeve with animal restrained in stock during application. Thereafter individual housing with food and water ad libitum

Dosage: 24-hour continuous contact with the skin at 0.5, 1, 2 and 4 g per kg body weight.

Observations: Body weight, appearance, behavior, skin irritation, and mortality over a 14-day period.

Results:

Mortality: See attached table. No deaths occurred at any level in 14 days. The primary irritation scores were 1.4, 1.5, 1.1 and 1.4, for the 0.5, 1, 2 and 4 g per kg levels, respectively. No other noteworthy findings were observed.

Conclusions: The acute dermal toxicity of the above sample is greater than 4 g per kg body weight and this product evokes no irritation.

FOOD AND DRUG RESEARCH LABORATORIES, INC.

Eugene E. Virgin

Assistant Director - Biological Divisions

This report is submitted for the exclusive use of the person, partnership, or corporation to whom it is addressed, and neither the report nor the name of these Laboratories nor of any members of its staff may be used in connection with the advertising or sale of any product or process without written authorization.



Table 1

The Acute Dermal Toxicity to Rabbits of Olin 58734

Dose ¹	Rabbit No. & Sex	Body Weight		Dermal Irritation Score ²		Individual Findings ³
		0	14 day	1	3	
<u>g/kg</u>		<u>kg</u>				
0.5	2201M	3.3	3.6	4	1	NNF
	2202M	2.3	2.2	3	1	NNF
	2203F	2.7	2.9	2	0	NNF
	2204F	2.9	2.9	5	2	NNF
1.0	2205M	3.0	3.2	5	1	NNF
	2206M	3.1	3.1	5	1	NNF
	2207F	2.9	3.0	4	3	NNF
	2208F	3.2	3.4	3	2	NNF
2.0	2209M	2.2	2.4	2	1	NNF
	2210M	2.6	2.9	4	1	NNF
	2211F	3.2	3.1	4	2	NNF
	2212F	3.6	3.7	3	1	NNF
4.0	2213M	2.3	2.4	1	1	NNF
	2214M	2.4	2.4	2	2	NNF
	2215F	2.0	2.8	5	3	NNF
	2216F	2.2	2.5	4	4	NNF

¹ Administered as a 40 per cent aqueous paste.

² Scored by Draize system; slight edema was observed only in the abraded skin areas; erythema was observed in the abraded and intact skin areas.

³ Sacrificed at 14 days; NNF = no noteworthy findings.

Feb - 1968

MAR 17 1968



R. F. P.
Marion Avenue at 58th Street
Manhasset 78, New York City
Telephone: TWining 4-0500
Cable: Foodlabs, New York

REPORT

Submitted to: Olin Mathieson Chemical Corporation
Research Center
275 Winchester Avenue
New Haven, Connecticut 06504

Date: February 2, 1968

Lab. No.: 88722

Sample: Pinkish grey granular material

(TOLUTRIAZOLE)

Markings: Olin Evaluation Sample label - typewritten: "OLIN 58734"
Printed: "No warranty of any kind, express or implied, is made concerning the use of this product. User assumes all risk and liability resulting from handling, use or application".

Examination Requested: Approximate acute oral LD₅₀ in rats

Procedure: The acute oral toxicity was determined in rats employing the procedure recommended in Appraisal of the Safety of Chemicals in Food, Drugs, and Cosmetics, Association of Food and Drug Officials of the U. S., 1959. Calculated by Thompson moving average method: Weil, C. S., Biometrics, Vol. 8, No. 3, pp 249 et seq., 1952.

Animals: Adult albino rats, FDRL strain, 5 rats per dose level.

Dosage: 0.5, 1, 2, 4, and 8 g per kg body weight.

Observations: Body weight, behavior, appearance, mortality, gross changes at autopsy of rats that died and of representative survivors sacrificed at 14 days.

Results: See Tables 1 and 2. Deaths occurred in 3 hrs. to 5 minutes, following CNS depression, shallow breathing, lacrimation, and salivation. Liver congestion and pale stomach mucosae were seen at autopsy.

Conclusion: The acute oral LD₅₀ for rats of this sample is 1.83 g per kg body weight; confidence limits = 1.20 to 2.81 g per kg body weight.

FOOD AND DRUG RESEARCH LABORATORIES, INC.

Eugene E. Vojin

Assistant Director - Biological Divisions

Table 1

The Acute Oral Toxicity (LD_{50}) to Rats of Olin 58734

Dose ¹ g/kg	No. of Rats ²	Mean Body Weight ³ - days -		Number of Deaths			Mortality per cent
		0	14	5min.	1/2-3hr.	7 Days Total	
0.5	5	186 (189)	258		1	1	20
1.0	5	201	280			0	0
2.0	5	191 (181)	256		3	3	60
4.0	5	195	-	5		5	100
8.0	5	194		5		5	100

¹ Administered intragastrically as a 25 per cent suspension in 0.5 per cent CMC.

² Three males and two females per group.

³ Parenthetical figures show mean initial body weights of survivors.

The Acute Oral Toxicity (LD_{50}) to Rats = 1.83 g per kg body weight

Confidence Interval = 1.20 to 2.81 g per kg body weight



Table 2

Observations and Gross Findings in Rats Dosed Orally With Olin 58723

Dose	Observations ¹	Gross Findings ¹
0.5	CNS Depression (5) Nasal bleeding (1) Shallow breathing (1)	NNF (4) Liver, spleen - fibrinous adhesions (1)
1.0	CNS Depression (5)	NNF (1) Lungs - dark red areas (3) whitish areas (1)
2.0	CNS Depression (5) Shallow breathing (5)	NNF (1) Lungs - dark red areas (1) Liver - congested (3) Stomach - mucosa pale (3)
4.0	CNS Depression (5) Shallow breathing (5) Eyes tearing (2) Deaths in 1/2 to 3 hr.	Liver - congested (5) Stomach - mucosa pale (4) Lungs - pinkish (1)
8.0	CNS Depression (5) Salivation (5) Deaths in 5 min.	Liver - congested (5) Stomach - mucosa pale (5) Lungs - edema (1)

¹ NNF = no noteworthy findings; figures in parentheses show number of rats with findings.

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