

YOUNGER LABORATORIES

INCORPORATED

123 CLIFF CAVE ROAD

SAINT LOUIS, MO., 63129

Toxicologic Investigation of: **AROCOLOR 1016**

To: **MONSANTO COMPANY**

Lot Number **KE 01-701**

St. Louis, Missouri

Project No. **Y-75-252**

Date: **October 22nd, 1975**

ACUTE ORAL TOXICITY

Species **Sprague-Dawley Albino Rats**

LD₅₀ **2,350** Mg/Kg 95% Confidence Limits **2,120 - 2,500** Mg/Kg

CONDITIONS **Single Oral Dose - Undiluted**

	Dosage Mg/Kg	Avg. Initial Weight		Mortalities/Dosed			Time of Mortality
		Male	Female	Male	Female	Combined	
1	1,580	230	235	1/3	0/2	1/5	One to four days, most within two days
2	2,000	230	235	1/2	0/3	1/5	
3	2,510	235	240	2/3	1/2	3/5	
4	3,160	230	220	2/2	2/3	4/5	
5	3,980	225	220	3/3	2/2	5/5	
6							

Signs of Intoxication **Reduced appetite and activity (one to three days in survivors), increasing weakness, collapse, and death.**

Gross Autopsy
Decedents **Hemorrhagic lungs and liver, and gastrointestinal inflammation.**

Survivors (14 Days) **Viscera appeared normal.**

ACUTE DERMAL TOXICITY

Species **New Zealand Albino Rabbits**

LD₅₀ **> 1,580** Mg/Kg 95% Confidence Limits **----** Mg/Kg Exposure **24 Hours**

CONDITIONS **Applied Undiluted**

	Dosage Mg/Kg	Initial Weight		Mortalities/Dosed			Time of Mortality
		Male	Female	Male	Female	Combined	
1	631	2.1	---	0/1	---	0/1	Seven days Six days
2	1,000	---	2.2	---	0/1	0/1	
3	1,580	2.1	---	0/1	---	0/1	
4	2,000	---	2.1	---	1/1	1/1	
5	5,010	1.9	---	1/1	---	1/1	
6							

Signs of Intoxication **Reduced appetite and activity (two to four days in survivors), increasing weakness, collapse, and death.**

Gross Autopsy
Decedents **Lung hyperemia, liver discoloration, enlarged gall bladder, darkened kidney and spleen, and gastrointestinal inflammation.**

Survivors (14 Days) **Viscera appeared normal.**

MONS 045579

ACUTE EYE IRRITATION

Irritation Score (24, 48, 72 Hour Avg)

5.1

Classification

Slight *

Species New Zealand Albino Rabbits

Exposure 24 Hours

Dose and Conditions

0.1 Ml. Applied Undiluted / F.H.S.A.

* F.H.S.A.: NOT CLASSIFIED as an Eye Irritant

STRUCTURE	Animal Number	1		24		48		72		120		168	
		CONJUNCTIVA	IRIS	CONJUNCTIVA	IRIS	CONJUNCTIVA	IRIS	CONJUNCTIVA	IRIS	CONJUNCTIVA	IRIS	CONJUNCTIVA	IRIS
	1	0	0	8	0	0	12	0	0	4	0	0	0
	2	0	0	8	0	0	10	0	0	4	0	0	0
	3	0	0	10	0	0	10	0	0	0	0	0	0
	4	0	0	8	0	0	12	0	0	2	0	0	0
	5	0	0	10	0	0	12	0	0	2	0	0	0
	6	0	0	8	0	0	12	0	0	6	0	4	0
Mean Score (X/110.0)		8.6		11.3		3.0		1.0		0.0		0.0	

Immediate: Discomfort was slight

Comments

10 Minutes: Slight erythema, moderate to copious discharge

1 Hour: Slight erythema, very slight edema in two instances, copious discharge

24 Hours: Slight to moderate erythema, very slight edema, copious discharge containing whitish exudate

48 - 72 Hours: Gradual improvement

120 Hours: All scored zero

PRIMARY SKIN IRRITATION

Irritation Score (24, 72 Hour Avg)

5.3

Classification

Severe *

Species New Zealand Albino Rabbits

Exposure: 24 Hours

Dose and Conditions 0.5 Ml. Applied Undiluted / F.H.S.A.

* F.H.S.A.: CLASSIFIED as a Primary Skin Irritant

Animal Number	HOUR SKIN	ERYTHEMA								EDEMA							
		4	24	48	72	168	4	24	48	72	168	4	24	48	72	168	4
1	2	2	2	2	3	3	3	3	0	0	2	2	3	3	2	2	2
2	2	2	2	2	3	3	3	3	0	0	2	2	3	3	2	2	2
3	2	2	2	3	3	3	3	3	0	0	2	2	3	3	2	2	2
4	2	2	2	3	3	3	3	3	0	0	2	2	3	3	2	2	2
5	2	2	2	3	3	3	3	3	0	0	2	2	3	3	2	2	2
6	2	2	2	3	3	3	3	3	0	0	2	2	3	3	2	2	2

Comments Moderate defatting effect - skin sloughed off in ten to fourteen days. There was no injury in depth.

INHALATION TOXICITY

Species

Mortality

Mg/L

Initial sample

g

Chamber temperature

°C

Concentration

Hrs

Recovered sample

g

Chamber humidity

%

Exposure

°C

Condensed sample

g

Chamber volume

L

Sample temperature

°C

Vaporized sample

g

Air flow rate

L/Min

Signs of Intoxication

Gross Autopsy

Decedents

Survivors (Days)

MONS 045580