PROJECT NO. Y-71-105
REPORT FILE

YOUNGER LABORATORIES
INCORPORATED
Consulting and Analytical Services
CHEMICAL . . . MICROBIOLOGICAL . . . BIOLOGICAL

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June 28th, 1971

Certificate of Analysis

SUBJECT -

Toxicological Investigation Of: CARB Decachlorobiphenyl - Aroclor 1272 --
Lot: OR 179021

Monsanto Sample Number 105

Monsanto Project Number Y-71-105

STUDY CONDUCTED FOR -

Monsanto Company, St. Louis, Missouri

EXPERIMENTAL PROCEDURE -

A) Acute Oral Minimal Lethal Dose (Rats, Mixed Sex)

The diluted compound was fed by stomach tube to Sprague-Dawley strain albino male and female rats in increasing doses at increments of various fractional log intervals.

Observations were made for toxic signs and the viscera of the test animals were examined macroscopically.

The data, together with the dilution at which the compound was fed, are shown in Table I.

B) Acute Skin Absorption Minimal Lethal Dose (Rabbits, Mixed Sex)

The diluted compound was applied in increasing doses at increments of 0.2 fractional log intervals to the closely clipped, intact skin of New Zealand white male and female rabbits.

The treated areas were covered with plastic strips and the animals held in wooden stocks for periods up to twenty-four hours, after which time they were assigned to individual cages.

Observations were made for toxic signs and the viscera of the test animals were examined macroscopically.

The data, together with the dilution at which the compound was applied, are shown in Table II.

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EXPERIMENTAL PROCEDURE - (Continued)

C) Skin Irritation (Rabbits, Mixed Sex)

0.5 Gram of finely ground sample moistened with water was applied to the clipped, intact skin of New Zealand white male and female rabbits under a one inch by one inch square patch, two single layers thick. The patches were held in place with adhesive tape. The trunk of each animal was wrapped with plastic strips, to retard evaporation and avoid contamination, for the twenty-four hour exposure period.

Observations were made over a period of seven days for irritation.

The data, scored according to the method of Draize, Woodard and Calvery (Journal of Pharm. and Exp. Therapeutics, Volume 82, December, 1944) are shown in Table III.

D) Eye Irritation (Rabbits, Mixed Sex)

One Hundred (100.0) milligrams of finely ground sample were placed in the conjunctival sac of the right eye of each of three albino male and female rabbits and observations made over a period of seven days for inflammation.

The eyes were rinsed with warm isotonic saline solution after twenty-four hours.

The data, scored according to the method of Draize, et al, are shown in Table IV.

SUMMARY -

Dacachlorobiphenyl - Aroclor 1272 -- Lot: OR 179021

A) Acute Oral Minimal Lethal Dose (Rats, Mixed Sex)

The Acute Oral Minimal Lethal Dose for male and female rats was found to be greater than 7940 milligrams per kilogram.

The compound was classed as practically non-toxic by oral ingestion in male and female rats.

B) Acute Skin Absorption Minimal Lethal Dose (Rabbits, Mixed Sex)

The Acute Skin Absorption Minimal Lethal Dose for male and female rabbits was found to be greater than 7940 milligrams per kilogram.

The compound was classed as practically non-toxic by skin absorption in male and female rabbits.

C) Skin Irritation (Rabbits, Mixed Sex)

The compound was classed as non-irritating when applied as finely ground powder moistened with water to intact skin of male and female rabbits.

The average maximum score was 0.0 out of a possible 8 during the seven day observation period.

D) Eye Irritation (Rabbits, Mixed Sex)

The compound was classed as a slight eye irritant in male and female rabbits.

The average maximum score was 4.0 out of a possible 110 in one hour.

YOUNGER LABORATORIES, INC.

BY: MELVIN D. BIRCH

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T A B L E I

THE ACUTE ORAL MINIMAL LETHAL DOSE OF
'Decachlorobiphenyl - Aroclor 1272 -- Lot: OR 179021'
FOR RATS

Sample Fed As A 20.0% Solution-Suspension In Corn Oil

Animal No. - Sex	Weight Gm.	Dose Mg./Kg.	Fate
1- Female	225	501	Survived
2- Male	230	1000	Survived
3- Female	200	2000	Survived
4- Male	210	3160	Survived
5- Female	200	5010	Survived
6- Male	205	7940	Survived
7- Female	205	7940	Survived
8- Male	200	7940	Survived
9- Female	210	7940	Survived
10- Male	205	7940	Survived

DISCUSSION -

The Acute Oral Minimal Lethal Dose for male and female rats was found to be greater than 7940 milligrams per kilogram.

The compound was classed as practically non-toxic by oral ingestion in male and female rats.

There was no weakness or other outward signs of systemic toxicity.

Surviving animals were sacrificed seven days after dosing. The viscera appeared normal by macroscopic examination.

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TABLE II

THE ACUTE SKIN ABSORPTION MINIMAL LETHAL DOSE OF
'Decachlorobiphenyl - Aroclor 1272 -- Lot: OR 179021'
FOR RABBITS

Sample Applied As A 50.0% Solution-Suspension In Corn Oil

Animal No. - Sex	Weight Kg.	Dose Mg./Kg.	Weight Change 5 Days Later Kg.	Fate
1 - Female	2.3	3160	+ 0.1	Survived
2 - Male	2.4	5010	+ 0.1	Survived
3 - Female	2.7	7940	0.0	Survived
4 - Male	2.4	7940	+ 0.1	Survived

DISCUSSION -

The Acute Skin Absorption Minimal Lethal Dose for male and female rabbits was found to be greater than 7940 milligrams per kilogram.

The compound was classed as practically non-toxic by skin absorption in male and female rabbits.

There was no weakness or other outward signs of systemic toxicity.

Surviving animals were sacrificed fourteen days after dosing. The viscera appeared normal by macroscopic examination.

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T A B L E III

SKIN IRRITATION IN RABBITS AFTER APPLICATION OF

'Decachlorobiphenyl - Aroclor 1272 -- Lot: OR 179021'

Sample (0.5 Gram) Applied As Finely Ground Powder Moistened With Water

	Numerical Evaluation At The End Of					
Animal No. - Sex	1 Hour	24 Hours	48 Hours	72 Hours	120 Hours	168 Hours
1 - Male	0	0	0	0	0	0
2 - Female	0	0	0	0	0	0
3 - Male	0	0	0	0	0	0
Average	0.0	0.0	0.0	0.0	0.0	0.0

DISCUSSION -

The compound was classed as non-irritating when applied as finely ground powder moistened with water to intact skin of male and female rabbits.

The average maximum score was 0.0 out of a possible 8 during the seven day observation period.

Observations following application --

1-Hour:	No skin changes; zero readings
24- 168-Hours:	No skin changes; zero readings

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T A B L E IV

EYE IRRITATION IN RABBITS AFTER APPLICATION OF

'Decachlorobiphenyl - Aroclor 1272 -- Lot: OR 179021'

Sample (100.0 Milligrams) Applied As Finely Ground Powder

Animal No. - Sex	Numerical Evaluation At The End Of 1 Hour	24 Hours	48 Hours	72 Hours	120 Hours	168 Hours
1 - Male	4	0	0	0	0	0
2 - Female	4	0	0	0	0	0
3 - Male	4	0	0	0	0	0
Average	4.0	0.0	0.0	0.0	0.0	0.0

DISCUSSION -

The compound was classed as a slight eye irritant in male and female rabbits. The average maximum score was 4.0 out of a possible 110 in one hour.

Observations following application --

Immediate:	Discomfort was slight
10-Minutes:	Slight to moderate discharge; no erythema or edema
1-Hour:	Moderate discharge; no erythema or edema
24-Hours:	Eyes normal; zero readings
48- 168-Hours:	Eyes normal; zero readings

DSW 295811