

ADDITIVES  
TOXICITY

September 8, 1975/wu

(b) (4)



ACUTE DERMAL LD<sub>50</sub> IN THE RAT OF (b) (4)

TINUVIN 770

Batch No.: (b) (4)  
Project No.: (b) (4)

1. Summary and Conclusion

The acute dermal LD<sub>50</sub> of (b) (4) in rats of both sexes observed over a period of 14 days is greater than 3100 mg/kg. The substance has therefore a slight acute toxicity to the rat by this route of administration.

2. Method

a) Compound and formulation

(b) (4) was suspended with carboxymethyl-cellulose 2 %. Before treatment the suspension was homogeneously dispersed with an Ultra-Turrax and during treatment it was kept stable with a magnetic stirrer.

b) Animals

Healthy random bred rats of the Tif RAIf (SPF) strain raised on our premises were used for these experiments. They were kept at a room temperature of  $22 \pm 1^{\circ}$  C, at a relative humidity of  $55 \pm 5$  % and on a 14 hours light cycle day. They received ad libitum rat food - NAFAG, Gossau SG - and water. Prior to treatment the animals were adapted to our laboratories for a minimum of 4 days and the initial body weight ranged from 180 to 200 grams.

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c) Treatment\* and observations

During the treatment and observation period the rats were housed individually in Macrolon cages (type 2). Approximately 24 hours before treatment an area on the back of the rats of approximately 60 square cm was shaved with an electric clipper. For treatment the substance was evenly dispersed on the skin with a syringe and was covered with an occlusive dressing which was fastened around the trunk with an adhesive elastic bandage. After 24 hours the dressing was removed, the skin was cleaned with lukewarm water and the reaction of the skin was appraised.

3. Results

a) Rate of deaths - Table 1

b) Signs and symptoms

Within 24 hours after treatment the rats in all dosage groups showed dyspnoea, exophthalmus, curved position and ruffled fur. No local skin irritation was seen.

The animals recovered from systemic symptoms within 13 days. They were submitted to a necropsy on day 14.

c) Autopsies

Killed Animals: No substance related gross organ changes were seen.

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\* Noakes, D.N. and Sanderson, D.M.  
A method for determining the dermal toxicity of pesticides.  
Brit. J. Industr. Med., 26, 59-64, 1969

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Table 1 - Rate of deaths

Dose mg/kg	Concentration % of Formulation	No. of Animals		Died within									
		♂	♀	1 hr.		24 hrs.		48 hrs.		7 days		14 days	
				♂	♀	♂	♀	♂	♀	♂	♀	♂	♀
2150	50	3	3	0	0	0	0	0	0	0	0	0	0
3170	50	3	3	0	0	0	0	0	0	0	0	0	0
No higher doses were possible.													