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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: August 22, 1978.

SUBJECT: Eye Irritation and Skin Irritation Studies to Support Registration of Chevron Monitor Technical (Active Ingredient: O,S-dimethyl-phosphoramidothioate, 72.0 - 76.0%) EPA Reg. No. 239-EULE Caswell No. 378A Shaughnessy No. 101201

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Recommendations

The eye irritation study is adequate and will support registration of the product. However, due to early deaths of test animals, the skin irritation potential is not considered to have been satisfactorily defined. Precautionary statements pertinent to the label signal word DANGER are supported individually by eye irritation, oral LD_{50}, and dermal LD_{50} studies (refer to review by W. Greear, 11/5/76) and are therefore recommended to describe the hazard based on skin irritation potential.

Precautionary and First Aid statements require the following changes:

DANGER: Keep Out of Reach of Children. Fatal if swallowed, inhaled, or absorbed through skin. Do not breathe vapors. Wear a pesticide respirator jointly approved by the Mining Enforcement and Safety Administration (formerly the U.S. Bureau of Mines) and by the National Institute for Occupational Safety and Health under the provisions of 30 CFR Part II for organic phosphate protection. Corrosive. Causes eye damage and skin irritation. Rapidly Absorbed through skin! Do not get in eyes, on skin, or on clothing. Wear natural rubber gloves, protective clothing and goggles or face shield when handling. Avoid contamination of food. Wash hands arms and face thoroughly with soap and water before eating and smoking. Keep all unprotected persons out of operating areas.

EPA FORM 1320-6 (REV. 3-76)

First Aid: POISON (include skull and crossbones). In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes. Call a physician. Remove and wash contaminated clothing before reuse.

If swallowed, drink promptly a large quantity of milk, egg whites, gelatin solution or, if these are not available, drink large quantities of water. Avoid alcohol. Call a physician immediately.

Note to Physicians: Emergency Information - call (415) 233-3737. Atropine is antidotal. 2-PAM is also antidotal and may be administered in conjunction with atropine. Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be needed.

* No RPAR criteria have been exceeded.

** Because corneal opacities in the eye irritation study were not completely reversible within 7 days and because the acute dermal LD_{50} is less than 200 mg/kg (see review by W. Greear, 11/5/76), the product is a candidate for the Restricted Use Classification.

Review

I. Eye Irritation and Skin Irritation Studies of Monitor Technical (Standard Oil Co. of CA, SOCAL 1108/30: 110 and 1108/30; 111, 10/28/77, submitted by Chevron Chemical Co., 6/16/78).

A. Eye Irritation Study

1. Procedure

Into one eye of each of six male rabbits (New Zealand White) was instilled 0.1 ml of test material. Untreated eyes were controls. Injuries were scored according to a modification of the method of Draize, et. al, (1944) at 1 hour and 1, 2, 3, 7, 10 and 14 days following treatment.

2. Results

a. Mortality: One death at 30 minutes post-treatment.
b. Toxic Signs: Tremors, salivation, diarrhea and miosis until one day post-treatment.

c. Eye Injuries: Corneal opacities and conjunctivitis through 72 hours and iritis through 24 hours. Corneal opacities and pannus were observed in 2 rabbits during 10 days after treatment.

3. Conclusions

a. Classification: Core Minimum Data
i. The benefit of washing eyes after treatment was not evaluated.

b. Tox. Cat: I

B. Skin Irritation Study

1. Procedure

Six male rabbits (New Zealand White), weights unspecified, were used. Onto both intact and abraded test sites of each rabbit was applied 0.5 ml of Monitor Technical under occlusive dressing. Dressing and residual test material were removed at 24 hours post-treatment. Irritation was scored according to a modification of the method of Draize, et. al., (1944) at 24, 48 and 72 hours and 7 days following treatment.

2. Results

a. Mortality: 4 deaths by 48 hours post-treatment.
b. Toxic Signs: Ataxia, tremors, salivation
c. Skin Irritation: In survivors slight to moderate erythema until 72 hours after treatment.

3. Conclusions

a. Classification: Supplementary Data
i. Because of early mortality, not enough rabbits were available to permit evaluation of skin irritation potential during at least 72 hours post-treatment.

b. Tox. Cat: Cannot be determined

RD Int. 8/28/78

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