

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

INTEROFFICE COMMUNICATION

October 21, 1994

TO: File for Triethylammonium Suleptanate (No CAS #)
FROM: Marco Bianchi
SUBJECT: Initial Threshold Screening Level

The initial threshold screening level (ITSL) for triethylammonium suleptanate is $17 \mu\text{g}/\text{m}^3$ based on an annual averaging time.

The following references or databases were searched to identify data to determine the ITSL: IRIS, HEAST, NTP Management Status Report, RTECS, EPB-CCD, EPB library, CAS-online, NLM-online, IARC, NIOSH Pocket Guide, and ACGIH Guide.

A complete reference check was conducted for triethylammonium suleptanate, but only limited information was available. Upjohn provided an in-house oral LD_{50} study for this compound. A single group of four male albino rats were orally dosed at 5000 mg/kg of triethylammonium suleptanate suspended in acetonitrile. Within thirty minutes after dosing, decreased activity with or without salivation was observed in all rats. In approximately 90 minutes, dyspnea and convulsions also occurred in some animals. One rat was found dead at two hours post dosing and another one at four hours. The aforementioned toxic signs were discernible in the remaining two rats for at least six hours post dosing. The two rats survived, but also developed diarrhea, ocular discharge and dark red crusty exudate around the eyes. Both survivors lost body weight for two to three days post dosing before returning to, and exceeding their pre-dosing body weights on day five. Thereafter, the rats appeared normal for the remainder of the 14-day study period. Necropsy of the two dead rats revealed dark red lesions in the glandular mucosa of the stomach. At the 124-day terminal euthanasia of the two surviving rats, no gross lesions were observed. The LD_{50} for this compound is 5000 mg/kg.

The ITSL was derived as follows:

The LD_{50} for this study was determined to be 5000 mg/kg.

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$\text{LD}_{50} = 5000 \text{ mg/kg}$

$$\text{ITSL} = \frac{1}{500} \times \frac{1}{40} \times \frac{1}{100} \times \frac{5000}{0.167 \times 0.900} = 0.0166 \text{ mg/kg}$$

$0.0166 \text{ mg/kg} \times 1000 = 17 \mu\text{g}/\text{m}^3$ based on annual averaging.

The ITSL for triethylammonium suleptanate = $17 \mu\text{g}/\text{m}^3$ based on annual averaging.

MB:ma