

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

INTEROFFICE COMMUNICATION

FEBRUARY 28, 1994

TO: File for Bropirimine (56741-95-8)
FROM: Marco Bianchi
SUBJECT: Initial Threshold Screening Level

The initial threshold screening level (ITSL) for bropirimine is $15 \mu\text{g}/\text{m}^3$ 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, IARC, NIOSH Pocket Guide, and ACGIH Guide.

A complete reference check was conducted for bropirimine, but only limited information was available. The Upjohn Company submitted an oral rat LD_{50} internal study that could be used to derive an ITSL for this compound. This study involved gavage dosing four groups of Fischer rats, consisting of 10 males and 10 females per group at 630, 1250, 2500, and 5,000 mg/kg of bropirimine. All rats were observed for 14 days following drug administration. Treatment related clinical signs observed were feces that were lighter and/or whiter in color than normal in the 2500 mg/kg and 5000 mg/kg rats recurring up to 96 hours after dosing. One rat given 5000 mg/kg died on day 5, the cause of death was not determined. There were no significant gross necropsy lesions. Although an actual LD_{50} was not derived from this study, the data suggested that the LD_{50} was greater than 5,000 mg/kg. Therefore, a LD_{50} of 5,000 mg/kg will be used as a surrogate value to derive an ITSL.

An ITSL was derived as follows:

$$\text{LD}_{50} = 5,000 \text{ mg/kg}$$

$$\text{ITSL} = \frac{1}{500} \times \frac{1}{40} \times \frac{1}{100} \times \frac{5000}{0.167 \times 0.969} = 0.015 \text{ mg}/\text{m}^3$$

$$0.015 \text{ mg}/\text{m}^3 \times 1000 = 15 \mu\text{g}/\text{m}^3$$

The ITSL for bropirimine = $15 \mu\text{g}/\text{m}^3$ based on annual averaging.

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