

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE COMMUNICATION

February 9, 1998

TO: File for Sodium Soap 903923 (67701-10-4)
FROM: Marco Bianchi, Toxics Unit, Air Quality Division
SUBJECT: Initial Threshold Screening Level

The initial threshold screening level (ITSL) for *sodium soap 903923* is 6 ug/m³ 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, and Patty's Industrial Hygiene and Toxicology.

A detailed database search was conducted for *sodium soap 903923*, but only limited information could be obtained to derive an ITSL. The Dial Corporation verbally provided data from an oral rat LD₅₀ study by telephone, but due to confidentiality issues would not provide a written copy of the complete study. According to this data, 5 male and 5 female Charles River white albino rats were orally dosed with a 10% aqueous solution of this soap product. No deaths occurred, and no adverse effects were noted immediately after dosing and 14 days post-dosing. The LD₅₀ was estimated to be >2000 mg/kg, which was used to derive the ITSL.

The ITSL was determined as follows:

LD₅₀ = 2000 mg/kg.

$$\text{ITSL} = \frac{1}{500} \times \frac{1}{40} \times \frac{1}{100} \times \frac{2000 \text{ mg/kg}}{0.167 \times 0.945} = 0.0063 \text{ mg/m}^3$$

Conversion of mg/m³ to ug/m³

$$0.0063 \text{ mg/m}^3 \times 1000 = 6.3 \text{ ug/m}^3$$

The ITSL for Sodium Soap 903923 = 6 ug/m³ based on an annual averaging.

MB:SLB

cc: Mary Lee Hultin, Toxics Unit