

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE COMMUNICATION

November 21, 2001

TO: Exxate 900 Fluid (CAS #108419-33-6)
FROM: Gary Butterfield, Toxics Unit, Air Quality Division
SUBJECT: Screening Level for Exxate 900 fluid

This is an updated review of the default/trace screening level that was developed in June of 1999. This review was able to locate new toxicity data that will allow an ITSL of $17 \mu\text{g}/\text{m}^3$ with annual averaging to be calculated for this chemical.

Exxate 900 fluid is a liquid that also is known as oxo-nonyl acetate, or as the acetic acid, ester of C8-C10 oxo-alcohol branched.

The following references or databases were searched to identify data to determine the screening level: U.S. Environmental Protection Agency (EPA) Integrated Risk Information System (IRIS), National Institute for Occupational Safety and Health (NIOSH) Registry for Toxic Effects of Chemical Substances (RTECS), American Conference of Governmental and Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs), Michigan Department of Environmental Quality (DEQ) library, International Agency for Research on Cancer (IARC) Monographs, Chemical Abstract Service (CAS) Online (1967- Oct 2001), National Library of Medicine (NLM) - Toxline, and National Toxicology Program (NTP) Status Report.

No hits were found in the November 19, 2001 CAS or NLM on-line search under this CAS number and chemical name. The above secondary references also did not have any toxicity information on Exxate 900 Fluid. There is a near total lack of toxicity information on this chemical. The manufacturer's MSDS sheet does list a LD-50 value of greater than 5 g/kg, however.

The manufacturer of Exxate 900 Fluid, Exxon Mobile Chemical, was able to provide a summary of an unpublished oral LD-50 study with this chemical, which was listed in the MSDS. The LD-50 was found to be greater than 5 g/kg in this study which was conducted by Biodynamics (1983). A group of 5 male and 5 female Sprague-Dawley rats were administered by gavage 5 g/kg, of neat Exxate 900. One of the female rats died before end of the 14 day observation period. This has lead to the conclusion that, the LD-50 is greater than 5 g/kg.

The ITSL can be calculated from the equation in R232(1)(h) where the value of 5000 mg/kg will be substituted for the LD50. The ITSL can be calculated as follows.

$$\text{ITSL} = \frac{(5000 \text{ mg/kg})}{500 \times 40 \times 100 \times 0.167} \times \frac{1 \text{ kg}}{0.9 \text{ m}^3} = 17 \mu\text{g}/\text{m}^3 \text{ annual average}$$

Where, the rat default inhalation rate of $0.9 \text{ m}^3/\text{kg}$ was used in the calculation of the ITSL.

References:

Biodynamics. 1983. Acute oral toxicity study in the rat. Project # 330401. A one page summary of this study was provided.

GB:DB

cc: Cathy Simon, AQD
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