

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

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INTEROFFICE COMMUNICATION

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TO: File for Bis Chloromethyl Ether (CAS No. 542-88-1)  
FROM: Mike Depa, Air Quality Division  
DATE: September 14, 2015  
SUBJECT: Screening Level

The initial risk screening level (IRSL) and secondary risk screening level (SRSL) for bis chloromethyl ether were established in 1992 from a U.S. Environmental Protection Agency (EPA) inhalation unit risk of  $6.2E-2$  per  $\mu\text{g}/\text{m}^3$  (EPA, 1991) as follows:

$$\text{IRSL} = \frac{1E-6}{6.2E-2 (\mu\text{g}/\text{m}^3)^{-1}} = 0.000016 \mu\text{g}/\text{m}^3 \text{ (annual averaging time)}$$

$$\text{SRSL} = \frac{1E-5}{6.2E-2 (\mu\text{g}/\text{m}^3)^{-1}} = 0.00016 \mu\text{g}/\text{m}^3 \text{ (annual averaging time)}$$

EPA (1991) classifies bis chloromethyl ether as a type A (human carcinogen) based on statistically significant increases in lung tumors (oat cell carcinomas) observed in six studies of exposed workers and a bioassay from rats and mice.

Reference:

EPA. 1991. U.S. Environmental Protection Agency (EPA) Integrated Risk Information System (IRIS) Bis (chloromethyl) ether.