

## MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

### INTEROFFICE COMMUNICATION

TO: File for 1-Methyldecahydronaphthalene (CAS# 2958-75-0)

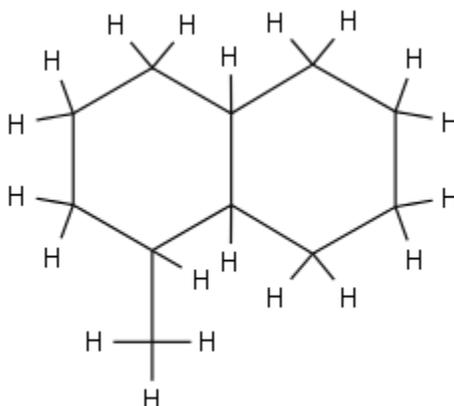
FROM: Doreen Lehner, Toxics Unit, Air Quality Division

DATE: November 30, 2018

SUBJECT: Screening level for 1-Methyldecahydronaphthalene (CAS# 2958-75-0)

The initial threshold screening level (ITSL) for 1-methyldecahydronaphthalene (CAS# 2958-75-0) is 0.1  $\mu\text{g}/\text{m}^3$  based on an annual averaging time.

1-Methyldecahydronaphthalene, also known as alpha-methyldecalin, is a liquid with a molecular weight of 152.28 g/mol. 1-Methyldecahydronaphthalene is found in some plastics and is one of many constituents in alternative diesel fuels.



**Figure 1.** Structure of 1-methyldecahydronaphthalene

A literature review was conducted to determine an ITSL for 1-methyldecahydronaphthalene. The following references and databases were searched to derive the above screening level: United States Environmental Protection Agency (US EPA) Integrated Risk Information System (IRIS), National Institute for Occupational Safety and Health (NIOSH), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLV) and Biological Exposure Indices (BEI) 2010 guide, National Toxicology Program (NTP) Study Database, International Agency for Research on Cancer (IARC), Chemical Abstract Service (CAS) Online (searched 11/2/2018), National Library of Medicine (NLM)-online, US EPA Aggregated Computational Toxicology Resource (ACToR) Database, US EPA ChemView database, and Hazardous Substances Data Bank (HSDB).

There was no US EPA derived reference dose (RfD) or reference concentrations (RfC). There is no NIOSH recommended exposure limit data available for this compound or a threshold limit value from ACGIH. There were no inhalation or oral studies available that could be used to determine a no observed adverse effect level (NOAEL) and no acute inhalation data where a median lethal concentration (LC<sub>50</sub>) could be derived. Due to the lack of toxicological information, Rule 232(1)(i) will be used which allows an ITSL of 0.1 µg/m<sup>3</sup> to be applied. According to Rule 232(2)(c), the averaging time is annual.

Based on the above data, the ITSL for 1-methyldecahydronaphthalene is 0.1 µg/m<sup>3</sup> based on an annual averaging time.

**References:**

APCR. 2016. Air Pollution Control Rules, Promulgated pursuant to Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act. 1994. PA 451, as amended.