

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE COMMUNICATION

TO: File for Cyclohexanone (CAS No. 108-94-1)
FROM: Cathy Simon, Air Quality Division
DATE: December 5, 2012
SUBJECT: Screening Level Update

The initial threshold screening level (ITSL) for cyclohexanone has been changed from 1000 $\mu\text{g}/\text{m}^3$ (8-hour averaging time) to 800 $\mu\text{g}/\text{m}^3$ (8-hour averaging time). This change is being made as part of a project to update ITSLs that are derived from outdated occupational exposure limits. The evaluation of data being done as part of this project is limited to identifying the most recent occupational exposure limit, and does not include a review of all the available scientific literature.

The original ITSL for cyclohexanone was set in 1992 and was derived from the American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV) of 25 ppm (100 mg/m^3) (MDNR, 1992). This TLV of 25 ppm was first adopted by the ACGIH in 1981. The new ITSL is based upon the most recent TLV of 20 ppm (80 mg/m^3), which was adopted by the ACGIH in 2003, and represents the most up to date and scientifically based TLV available from the ACGIH. The new ITSL was derived as follows:

$$ITSL = \frac{TLV}{100} = \frac{80 \text{ mg}/\text{m}^3}{100} = 0.8 \text{ mg}/\text{m}^3 = 800 \text{ }\mu\text{g}/\text{m}^3$$

The above ITSL of 800 $\mu\text{g}/\text{m}^3$ (8-hour averaging time) was derived pursuant to Rule 229(2)(b) of the Michigan Air Pollution Control Rules, and is consistent with the methodology of Rule 232(1)(c).

References

MDNR. 1992. *Memo from Gary Butterfield to Cyclohexanone File (CAS # 108-94-1). Subject: ITSL for Cyclohexanone.* September 15, 1992. Michigan Department of Natural Resources, Air Quality Division.

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