

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE COMMUNICATION

TO: Hexafluorozirconium acid file (CAS # 12021-95-3)

FROM: Gary Butterfield

SUBJECT: Screening level for Hexafluorozirconium acid

DATE: February 16, 2006

Hexafluorozirconium acid is a solid crystalline material at ambient temperatures. It is very water soluble. A water solution is the form used in most industrial applications. The molecular formula is ZrF_6H_2 for the crystals. The molecular weight is 207.2 g/mol. The MSDS sheet warns that hydrogen fluoride is emitted from this chemical when heated to decomposition.

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 (1968-Jan 2006), National Library of Medicine (NLM) - Toxline, and National Toxicology Program (NTP) Status Report.

The CAS and NLM on-line literature searches were conducted on January 31, 2006, to evaluate recent published literature. There were no published toxicity studies found under this CAS number. Due to a lack of available toxicity data, the screening level is being set at $0.1 \mu\text{g}/\text{m}^3$ with annual averaging under R232(1)(i).