KLEA®134a
SAFETY DATA SHEET

Mexichem

SECTION 11 - TOXICOLOGICAL INFORMATION

Information on the likely routes of exposure:	Inhalation, eye, and skin contact
Symptoms related to the physical, chemical and toxicological characteristics: Delayed and immediate effects and also chronic effects from short- and long-term exposure:	**Inhalation:** Vapor is heavier than air. May displace oxygen and cause rapid suffocation. Exposure to high concentrations may cause an abnormal heart rhythm (arrhythmia) under stressful conditions which can be fatal. Very high atmospheric concentrations may cause anesthetic effects such as dizziness, drowsiness, headaches, and unconsciousness. **Ingestion:** Liquid will cause freeze burns. **Eye contact:** Liquid splashes or spray may cause freeze burns. **Skin contact:** Liquid splashes or spray may cause freeze burns. **Other effects:** None anticipated.
Numerical measures of toxicity:	LC50: 4 hr. (rat) = 567,000 ppm LD50: Not applicable
Animal test data:	Acute inhalation exposures at very high concentrations of HFC-134a have shown central nervous system depression in laboratory animals. Cardiac arrhythmias were seen in dogs exposed to 80,000 ppm HFC-134a for 5 minutes, when followed by an injection of epinephrine. This phenomenon is referred to as cardiac sensitization and is an increased sensitivity of the heart to epinephrine. Liquefied material was a slight skin irritant to rats, possibly due to local freezing. Vaporized material is non-irritating. It is not a skin sensitizer. No toxicity was seen in rats exposed by inhalation for 6 hours/day, 5 days/week for 13 weeks to concentrations up to 50,000 ppm HFC-134a. HFC-134a was not genotoxic when tested in a variety of *in vitro* and *in vivo* tests. In a two-year carcinogenicity study, there was a slight increase in the incidence of benign testicular tumors in male rats exposed to 50,000 ppm HFC-134a. No increased tumors were seen in female rats or in male and female mice. Not a reproductive or developmental toxicant.
Carcinogenicity:	Not classified as carcinogenic by NTP, IARC, ACGIH, or OSHA.
Teratogenicity, mutagenicity, other reproductive effects:	None known. For further information see animal test data above.
Toxicologically synergistic products:	None known. Note that administration of epinephrine or similar sympathomimetic drugs following exposure may result in cardiac arrhythmia.