

MATERIAL SAFETY DATA SHEET

For R&D use only. Not for drug, household or other uses.

Click <http://www.lookchem.com/cas-138/13838-16-9.html> for suppliers of this product.

Composition/Information on Ingredient

Cas:
13838-16-9
Code:
M

RTECS:
KN6800000
Code:
M

Name:
ENFLURANE

Other REC Limits:
C,2PPM/1H (NIOSH)

OSHA PEL:
NOT ESTABLISHED
Code:
M

OSHA STEL:

Code:

ACGIH TLV:
75 PPM; 9192
Code:
M

ACGIHSTEL:
N/P
Code:

Control Measures

Respiratory Protection:
NIOSH/MSHA APPROVED RESPIRATORS FOR HALOGENATED ETHERS IF ENGINEERING CONTROLS SUCH AS LOCAL EXHAUST OR AN ENCLOSURE IS NOT USED.

Ventilation:
LOCAL EXHAUST RECOMMENDED; WHERE POSSIBLE, ENCLOSE OPERATIONS & USE APPROPRIATE VENTILATION TO MAINTAIN AIR CONTAMT

Protective Gloves:
AS REQUIRED FOR TASK AT HAND. (FP D)

Eye Protection:
AS REQUIRED FOR TASK AT HAND. (FP D)

Other Protective Equipment:
Equipment AS REQUIRED TO MINIMIZE EXPOSURE FOR TASK AT HAND. (FP D)

Work Hygienic Practices:
OBSERVE ESTABLISHED PROCEDURES CONSULT W/ YOUR INDUSTRIAL HYGIENE ADVISOR FOR USE OF THIS PRODUCT. 4

Supplemental Safety and Health:
READ MANUFACTURER'S PRODUCT DESCRIPTOR & "PDR" ON THE PARTICULARS OF THIS PRODUCT.

Health Hazards Data

LD50LC50Mixture:
N/K

Route Of Entry Inds - Inhalation:

YES

Skin:

NO

Ingestion:

YES

Carcinogenicity Inds - NTP:

NO

IARC:

NO

OSHA:

NO

Health Hazards Acute And Chronic:
ACUTE: IRRITATION OF EYES, NOSE, MOUTH, & THROAT. PRODUCT IS A POTENT RESPIRATORY DEPRESSANT & CAN IMPAIR CARDIAC PERFORMANCE. READ MFR'S PRODUCT DESCRIPTOR & "PDR" FOR CONTRAINDICATIONS! CONTRAINDICA TIONS: SEIZURE DISORDERS; KNOWN SENSITIVITY TO ETHRANE; KNOWN OR SUSPECTED GENETIC SUSCEPTIBILITY TO MALIGNANT HYPERTHER

Explanation Of Carcinogenicity:

2 N/R

Signs And Symptoms Of Overexposure:
INHAL/INGEST: CAN CAUSE IRRITATION OF EYES, NOSE, MOUTH & THROAT. CAN CAUSE HEADACHES, DROWSINESS, UNCONSCIOUSNESS, DEATH; SKIN: MAY IRRITATE & CAUSE ITCHING OR RASHES, DRYING OR CRACKING.

Medical Cond Aggravated By Exposure:
WHEN PREVIOUS EXPOSURE TO A HALOGENATED ANESTHETIC IS KNOWN TO HAVE BEEN FOLLOWED BY EVIDENCE OF UNEXPLAINED HEPATIC DYSFUNCTION, USE OF AN ALTERNATE AGENT SHOULD BE CONSIDERED.

First Aid:
EYE: IMMEDIATELY FLUSH W/LARGE AMTS. OF TEPID POTABLE WATER FOR AT LEAST 15 MIN-ENSURING RINSE OF INNER SURFACES OF UPPER & LOWER LIDS; SKIN: REMOVE CONTAMINATED CLOTHING. GET MED. ATTN. FOR REDNESS O R IRRITAT; INHAL: REMOVE FROM EXPOSURE.GIVE CPR/O*2 AS SITUATION DICTATES; INGEST: IF PERSON CONSCIOUS, IMMEDIATELY ADMINISTER LARGE AMTS. OF WATER & INDUCE VOMITING. ((GET MED. ATTN FOR OVEREXPOSURE

Spill Release Procedures:
RESTRICT PERSONS NOT WEARING PROTECTIVE EQUIPMENT FROM AREAS OF SPILLS OR LEAKS UNTIL CLEANUP IS COMPLETE. VENTILATE AREA OF SPILL OR LEAK. FOR LARGE SPILLS & FIRES, IMMEDIATELY CALL YOUR LOCAL FIRE D EPT.

Neutralizing Agent:

N/K

Waste Disposal Methods:
IT MAY BE NECESSARY TO CONTAIN & DISPOSE OF PRODUCT AS A HAZARDOUS WASTE. CONTACT YOUR REGIONAL EPA OFFICE FOR SPECIFIC REGULATIONS.

Handling And Storage Precautions:
PRODUCT MUST BE STORED TO AVOID CONTACT W/ PEROXIDES. STORE IN TIGHTLY CLOSED CONTAINERS IN COOL,WELL VENTILATED AREAS AWAY FROM HEAT. DO NOT FREEZE!

Other Precautions:
PROTECT PRODUCT FROM FREEZING.

Fire and Explosion Hazard Information

Flash Point Method:

PMCC 3

Flash Point:

Flash Point Text:

>200F/>93.3C

Autoignition Temp:

Autoignition Temp Text:

N/K

Lower Limits:

N/K

Upper Limits:

N/K

Extinguishing Media:
USE FOAM,DRY CHEMICAL OR LIQUIFIED GAS EXTINGUISHERS.

Fire Fighting Procedures:
WEAR FIRE FIGHTING PROTECTIVE EQUIPMENT AND A FULL FACED SELF CONTAINED BREATHING APPARATUS. EVACUATE AREA. COOL FIRE EXPOSED CONTAINERS WITH WATER SPRAY.

Unusual Fire/Explosion Hazard:
TOXIC GASES SUCH AS PHOSGENE, HYDROGEN CHLORIDE & HYDROGEN FLUORIDE MAY BE RELEASED IN A FIRE INVOLVING THE PRODUCT.

Physical/Chemical Properties

HCC:
T6

NRC/State LIC No:
N/R

Net Prop WT For Ammo:

Boiling Point:

B.P. Text:
133.7F/56C

Melt/Freeze Pt:

M.P/F.P Text:
N/A

Decomp Temp:

Decomp Text:
UNKNOWN

Vapor Pres:
175 MM 68F

Vapor Density:
6.3

Volatile Org Content %:

Spec Gravity:
1.517

VOC Pounds/Gallon:

PH: N/P

VOC Grams/Liter:

Viscosity:
N/P

Evaporation Rate & Reference:
N/K

Solubility in Water:
SLIGHT

Appearance and Odor:
COLORLESS LIQUID W/MILD ETHEREAL ODOR.

Percent Volatiles by Volume:
100.

Corrosion Rate:
UNKNOWN

Reactivity Data

Stability Indicator:
YES

Stability Condition To Avoid:
MFR. CITES NONE

Materials To Avoid:
MFR. CITES NONE

Hazardous Decomposition Products:
PHOSGENE, HYDROGEN CHLORIDE, HYDROGEN FLUORIDE 5

Hazardous Polymerization Indicator:
NO

Conditions To Avoid Polymerization:
N/R

Toxicological Information

Information:N/P

MSDS Transport Information

Information:N/P

Regulatory Information

Sara Title III Information: N/P

Federal Regulatory Information: N/P

State Regulatory Information: N/P

Other Information

Other Information:N/P

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WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Lookchem shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.