



Material Safety Data Sheet

PIPERAZINE 17%

Page 1 of 1

DATE PREPARED: January 1, 1994

SECTION I

MANUFACTURER'S NAME: CHEM-TECH, LTD.
4515 FLEUR DR. #303
DES MOINES IA 50321

EMERGENCY TELEPHONE NUMBER: 1-800-424-9300 CHEMTREC
TELEPHONE NUMBER FOR INFORMATION: 515/287-6778

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Table with 4 columns: Hazardous Components (Specific Chemical Identity: Common Name(s)), OSHA PEL, ACGIH TLV, % (optional). Rows include Piperazine (Base) and Diethylenediamine (Piperazine) Sulfate in an aqueous solution.

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-to Know Act of 1986 and of 40 CFR 372:

CAS # CHEMICAL NAME % BY WEIGHT

THIS PRODUCT CONTAINS NO SECTION 313 CHEMICALS.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

FREEZING POINT: 18 deg F.
BOILING POINT: 220 deg F.
VAPOR PRESSURE (mm Hg.): NE
VAPOR DENSITY (AIR = 1): NE
SPECIFIC GRAVITY (H2O = 1): 1.03
MELTING POINT: N/A
EVAPORATION RATE (Butyl Acetate = 1): >1
SOLUBILITY IN WATER: Infinite
APPEARANCE AND ODOR: Pink liquid, Clear, Strawberry odor.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used): None
FLAMMABLE LIMITS: LEL: None UEL: None
EXTINGUISHING MEDIA: Water, Foam, CO2, Dry Chemical
SPECIAL FIRE FIGHTING PROCEDURES: None
UNUSUAL FIRE AND EXPLOSION HAZARDS: If product is engulfed in fire use self contained breathing apparatus as oxides of nitrogen will be evolved.

SECTION V - REACTIVITY DATA

STABILITY: Stable
CONDITIONS TO AVOID: N/A
INCOMPATIBILITY (Materials to Avoid): Unknown
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: In extreme heat oxides of Nitrogen.
HAZARDOUS POLYMERIZATION: Will not occur
CONDITIONS TO AVOID: N/A

SECTION VI - HEALTH HAZARD DATA

ROUTE(S) OF ENTRY:
NHALATION? No SKIN? No INGESTION? Yes
HEALTH HAZARDS (Acute and Chronic): Relatively non-toxic. Occasional dizziness and urticaria are observed.
CARCINOGENICITY: NTP? IARC MONOGRAPHS? OSHA REGULATED? Not known to be carcinogenic
SIGNS AND SYMPTOMS OF EXPOSURE: See Health Hazards.
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Unknown
EMERGENCY AND FIRST AID PROCEDURES: CONTACT PHYSICIAN!
EYES: Flush with water and contact physician.
SKIN: Wash with soap and water.
ORAL: Drink 2 glasses of water, induce vomiting and contact physician.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Keep people away. Contain spill. Soak up with absorbant material and dispose of in trash for small spills. Large spills should be put in containers and disposed of in accordance to local, state or federal guide lines.
WASTE DISPOSAL METHOD: Do not pour in drains. See above.
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store in original container in a cool, dry, secure area out of sunlight. Keep away from children.
OTHER PRECAUTIONS: READ LABEL!

SECTION VIII - CONTROL MEASURES

RESPIRATORY PROTECTION (Specify Type): NONE
VENTILATION: LOCAL EXHAUST: N/R OTHER: None
MECHANICAL (General): N/R SPECIAL: None
PROTECTIVE GLOVES: Rubber
EYE PROTECTION: Goggles
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Waterproof apron.
WORK/HYGIENIC PRACTICES: Wash hands before eating or smoking.