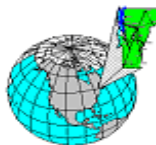


# Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.



## DS&M-SCIENTIFIC

*Ken Stella*

### IDENTITY (As Used on Label and List)

ETHYLAMINE, 33% Cat No.: E3057-1L, E3057-6L

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

### Section I

|  |  |   |
|--|--|---|
| Manufacturer's Name<br>DS&M-SCIENTIFIC | Emergency Telephone Number<br>Chemtrec: 1-800-424-9300 | Emergency Telephone Number<br>DS&M-SCIENTIFIC: 802-685-3229 |
| Address<br>965 REED ROAD               | Telephone Number for Information<br>412-826-5230       | Telephone Number for Information<br>FAX: 802-685-3229       |
| City<br>VERSHIRE                       | State<br>VT  | Zip<br>05079  |
| Country<br>USA                         | Date Prepared<br>21-Jan-2007                           | Supercedes<br>29-Oct-1998                                   |
| Preparer's Signature<br>               |  |   |

### Section II - Hazardous Ingredients/Identity Information

| Hazardous Components (Specific Chemical Identity; Common Name(s)) |                |            |                                      | Other Limits                                     | %  |         |
|---|----------------|------------|--------------------------------------|--|--|---------|
| Chemical Name   | Common Name(s) | CAS Number | OSHA PEL                             | Recommended                                      | (optional)                                   |         |
| ETHYLAMINE 33%  | monoethylamine | 75-04-7    | TWA-ppm 10.000<br>1<br>18.0000 mg/m3 | ACGIH TLV<br>9.2000 mg/m3<br>TWA ppm =<br>5.0000 | ACGIH mg/m#<br>27.60<br>ACGIH-STELppm<br>15. | 33      |
| WATER   | H2O            | 7732-18-5  | N/E                                  | N/E  | N/E  | balance |

HMIS HEALTH RATING = 3      FLAMMABILITY=3

REACTIVITY =0

CHEMICAL FAMILY: ALKYL  
AMINE

### Section III - Physical/Chemical Characteristics

|                                   |                  |   |
|-----------------------------------|------------------|---|
| Boiling Point<br>38.00 °C         | Units<br>°C      | Specific Gravity (H2O = 1)              |
| Vapor Pressure (mm Hg.)<br>450.00 | Units<br>no data | Melting Point                           |
| Vapor Density (AIR = 1)<br>1.55   |                  | Evaporation Rate<br>(Butyl Acetate = 1) |
| Solubility in Water<br>complete   |                  | Reactivity in Water<br>produces heat    |
| Appearance<br>Colorless           |                  | Odor<br>Fishy - pH 10.8                 |

### Section IV - Fire and Explosion Hazard Data

|  |             |                      |                  |                           |                |
|--|-------------|----------------------|------------------|---------------------------|----------------|
| Flash Point<br><68 °F  | Units<br>°F | Method<br>Closed Cup | Flammable Limits | LEL<br>no data            | UEL<br>no data |
| Extinguishing Media<br>Class IB: Water Spray, Alcohol Foam. Small Fire: CO2, Dry chemical or sand. |             |                      |                  | Auto Ignition Temperature | Units          |

Special Fire-Fighting Procedures Ignition will give rise to a Class B fire. A face shield should be worn. Firefighters should wear butyl rubber boots, gloves, and body suit. Self contained breathing apparatus a full face piece operated in a pressure mode. Water spray may be used to cool closed containers exposed to fire. Retain expended liquids from fire fighting for later disposal.

Unusual Fire and Explosion Hazards May generate toxic or irritating combustion products. Vapors may travel along ground to a source of ignition and flash back. Vapors may collect in closed spaces such as sewers, caves or closed structures. Vapor forms explosive mixtures with air. Contact of liquid with skin must be prevented. May generate toxic nitrogen oxide gases. May generate ammonia gas. Personnel in vicinity and downwind should be evacuated.

**Section V - Reactivity Data**

|           |          |   |                     |
|-----------|----------|---|---------------------|
| Stability | Unstable |   | Conditions to Avoid |
|           | Stable   | ✓ |                     |

**Incompatibility (Materials to Avoid)**

Mineral acids, organic acids, oxidizing agents, sodium and calcium hyperchlorite. Product slowly corrodes copper, aluminum, zinc. Heat. Peroxides.

**Hazardous Decomposition or Byproducts**

Carbon monoxide and carbon dioxide in a fire. Ammonia when heated. Nitrogen oxides in a fire. Irritating and toxic fumes at elevated temperatures.

|                          |                |   |                     |
|--------------------------|----------------|---|---------------------|
| Hazardous Polymerization | May Occur      |   | Conditions to Avoid |
|                          | Will not Occur | ✓ |                     |

**Section VI - Health Hazard Data**

|                    |  |                                      |  |                |
|--------------------|--|--------------------------------------|--|----------------|
| Route(s) of Entry: | Inhalation?<br>Acute:(LC50, Rat)5540ppm  | Skin?<br>Acute:(LD50,Rabbit)390mg/kg | Ingestion?<br>LD50, Rat 400mg/kg est.  | Eyes?<br>ACUTE |
| Health Hazards     | Acute TOXIC (ANSI Z129.1 1988) by ingestion, skin absorption. Corrosive to eyes. Corrosive to respiratory system. Corrosive to skin. Severe eye irritant. Severe respiratory tract irritant. Severe skin irritant. |                                      | Chronic Subchronic (6 weeks) exposure can cause adrenal necrosis (100ppm) and lung effects (50, 100 and 500ppm). |                |
| Carcinogenicity:   | NTP?<br>NO   | IARC Monographs?<br>NO               | OSHA Regulated?<br><0.1 PERCENT  |                |

**Reference**

CARCINOGENS UNDER OSHA, ACGIH, NTP, IARC, OTHER: This product contains no carcinogens in concentrations of 0.1 percent or greater.

**Signs and Symptoms of Exposure**

ACUTE: Lacrimation, conjunctivitis and corneal edema when absorbed into the tissue of the eye from the atmosphere. Corneal edema may give rise to a perception of 'blue haze' or 'fog' around lights. Eye burns may cause blindness. Contact with eyes or skin causes severe irritation and pain. Ingestion may cause death. CHRONIC: May cause kidney disorders (edema, or proteinuria), adverse respiratory effects. Effects of inhalation may be delayed; repeated exposure may cause transient sore

**Medical Conditions**

Generally Aggravated by Exposure Asthma. Chronic respiratory disease (e.g. Bronchitis, Emphysema) Eye disease. Kidney disorders. Skin disorders and Allergies. Repeated and/or prolonged exposures may result in kidney disorders, respiratory effects (such as, Cough, tightness of chest or shortness of breath), conjunctivitis or corneal damage to the eye, rash, irritation or corrosion to the skin. Effects of inhalation of vapors may be delayed.

**Emergency and First Aid Procedures** EYES: Flush eyes (hold eyelids apart) with copious amounts of water for at least 15 minutes. Call a physician. SKIN: Flush affected area with water for 15 mins. Remove contaminated clothing. Cover affected area with sterile dressing. Get medical care. INHALATION: Remove patient to fresh air. If breathing has stopped or is labored give assisted respiration (e.g. mouth-to-mouth). Prevent aspiration of vomit. Turn victim's head to the side. Seek medical help. INGESTION: Call a physician immediately. Remove stomach contents by gastric suction or induce vomiting only as directed by medical personnel.

**Section VII - Precautions for Safe Handling and Use****Steps to Be Taken in Case Material is Released or Spilled**

CONTAINMENT TECHNIQUES (Removal of ignition sources, diking etc.) Stop the leak, if possible. Ventilate the space involved. Reduce vapor spreading with water spray. Shut off or remove all ignition sources. Construct a dike to prevent spreading. Protect workers with water spray. CLEAN-UP PROCEDURES: If recovery is not feasible, admix with dry soil, sand or non-reactive absorbent (sodium bisulfate) and place in a container or dumpster pending disposal. Transfer to containers by suction, preparatory for later disposal. Place in metal containers for recovery or disposal. Flush area with water spray. Clean-up personnel must be equipped with self contained breathing apparatus and butyl rubber protective clothing. For large spills, recover spilled materials with a vacuum truck.

**Waste Disposal Method**

Waste from this product may present long term environmental hazards, thus landfill disposal must be considered less acceptable than incineration. Comply with all Federal, State and Local Regulations. Almost all disposal methods are subject to regulation under RCRA. In particular, review RCRA Land Disposal Restrictions. Under some conditions, material contaminated with this product may be landfilled. As supplied, RCRA classified as: ignitable, hazardous waste number D001.

**Precautions to Be Taken in Handling and Storing**

STORAGE: Keep in cool dry ventilated storage in closed containers, away from any ignition sources. Keep away from: acids, oxidizers, heat, flames, sparks. HANDLING: Avoid contact with skin or eyes. Avoid breathing of vapors. Handle in well ventilated work space. Empty containers may contain explosive vapors - flush with water to remove residual. OTHER: Emergency showers and eye wash stations should be in area. Always wear protective eye shield and clothing.

**Other Precautions**

REGULATORY: TSCA, OSHA 29CFR1910.1200, EPA SARA TITLE III SECTION 312 (40CFR370) HAZARD CLASS. EPA SARA TITLE III SECTION 313 (40CFR372) TOXIC CHEMICALS ABOVE "DEMINIMIS" LEVEL ARE = NONE. STATE: CALIFORNIA PROPOSITION 65 SUBSTANCES = NONE. NEW JERSEY TRADE SECRET REGISTRY NO.(S) = NONE

**Section VIII - Control Measures****Respiratory Protection**

Not required under normal conditions in a well ventilated workplace. Required during repair/cleaning of equipment. Chemical cartridge w/ face piece.

|             |  |                                    |
|-------------|--|------------------------------------|
| Ventilation | Local Exhaust<br>Explosion proof/general local exhaust w/ 12-30 air ch/hr..... | Special<br>n/ap                    |
|             | Mechanical (General)   | Other<br>Use adequate ventilation. |

|  |   |
|--|---|
| Protective Gloves<br>Impermeable gloves. Neoprene rubber, Cuffed butyl rubber, nitrile rubber. | Eye Protection<br>Full face shield with goggles underneath. |
|--|---|

**Other Protective Clothing or Equipment**

Impervious clothing. Slicker Suit. Rubber boots. Full rubber suit (rain gear). Butyl or latex protective clothing. Eye wash/shower in area.

**Work/Hygiene Practices**