

# MATERIAL SAFETY DATA SHEET

WARD'S  
Natural Science Establishment Inc.  
P.O. Box 92912  
Rochester, NY 14692-9012  
(609) 359-2502

MSDS No. 66 120  
Effective Date July 1, 1986

## 24 HOUR EMERGENCY ASSISTANCE

1  
0  
1

CHEMTREC  
800-424-9300  
Day 716-226-6177  
Night 716-334-4222

HEALTH  
1  
FIRE  
1  
REACTIVITY  
0

HAZARD RATING  
LEAST SLIGHT MODERATE HIGH EXTREME  
0 1 2 3 4

| SECTION I         | NAME                                 |
|-------------------|--------------------------------------|
| Product           | GLYCERINE                            |
| Chemical Synonyms | glycerol, 1,2,3-Propanetriol         |
| Formula           | CH <sub>2</sub> OHCH <sub>2</sub> OH |
| Unit(s) Size      | 500 ml, 1, 5, 4, 20 Liters           |
| C.A.S. No.        | 56-81-5                              |

## SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

| Principal Hazardous Component(s)                                                                                   | %       | TLV Units     |
|--------------------------------------------------------------------------------------------------------------------|---------|---------------|
| glycerine                                                                                                          | 99-100% | See Section V |
| (glycerine is not a hazardous or toxic material. It is included on the - GRAS List (generally recognized as safe). |         |               |

## SECTION III PHYSICAL DATA

|                         |                                                          |                                         |                  |
|-------------------------|----------------------------------------------------------|-----------------------------------------|------------------|
| Melting Point (°F)      | 17.8°C                                                   | Specific Gravity (H <sub>2</sub> O = 1) | 1.2607 (25/25°C) |
| Boiling Point (°F)      | Decomposes 290°C                                         | Percent Volatile by Volume (%)          | Negligible temp. |
| Vapor Pressure (mm Hg)  | 1.0 @ 125°C                                              | Evaporation Rate (Ethylene = 1)         | Greater than 1   |
| Vapor Density (Air = 1) | 3.17                                                     |                                         |                  |
| Solubility in Water     | Complete (100%)                                          |                                         |                  |
| Appearance and Odor     | Clear, colorless to pale yellow, syrupy liquid; no odor. |                                         |                  |

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

|                           |                                                                     |                           |   |       |
|---------------------------|---------------------------------------------------------------------|---------------------------|---|-------|
| Flash Point (Method Used) | 370°F (188°C) (COC)                                                 | Flammable Liquid Category | 3 | Upper |
| Extinguisher Media        | Carbon dioxide (CO <sub>2</sub> ); dry chemical (ABC); water spray. |                           |   |       |

## SPECIAL FIREFIGHTING PROCEDURES

Autoignition temperature 698°F (370°C).  
In fire conditions, wear a NIOSH-approved self-contained breathing apparatus.

## UNUSUAL FIRE AND EXPLOSION HAZARDS

Fire or excessive heat may produce hazardous decomposition products; can react vigorously with oxidizing materials (chromium trioxide, potassium chlorate, or potassium permanganate. May produce explosion).

D.O.T. NON HAZARDOUS

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

## SECTION V HEALTH HAZARD DATA

Threshold Limited Value TM: 10 mg/m<sup>3</sup> - as nuisance mist (ACGIH 1983-84)

## Effects of Overexposure

INGESTION: Very low hazard. Estimating from data, the lethal dose for a 100 pound person may be a quart or more.  
EYE CONTACT: No significant irritation.  
SKIN: No significant irritation. Not absorbed through skin.  
INHALATION: Mists are irritating to respiratory tract.

## Emergency and First Aid Procedures

CAUTION: Never give anything by mouth or induce vomiting if patient is unconscious or having convulsions.  
EYES: Flush thoroughly with water. If irritation develops or persists, get medical attention.  
SKIN: Flush skin with water.  
INHALATION: Remove to fresh air. If ill effects develop, get medical attention.  
INGESTION: If swallowed, if ill effects develop, get medical attention.

## SECTION VI REACTIVITY DATA

| Stability                            | Unstable | Conditions to Avoid                                                                                                  |
|--------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------|
| Stable                               | x        | Absorbs moisture from air. Excessive temperature or heat.                                                            |
| Incompatibility (Materials to avoid) |          | Oxidizing agents. (Sodium hypochlorite, Hypochlorous acid, Nitric acid, Potassium Chlorate, Chromium trioxide, etc.) |

## Hazardous Decomposition Products

|                          |                                                                                                |
|--------------------------|------------------------------------------------------------------------------------------------|
| Hazardous Polymerization | Acrolein                                                                                       |
| May Occur                | Will Not Occur                                                                                 |
|                          | Avoid a condition of excessive heat (in excess of 200° C) while exposed to atmospheric oxygen. |

## SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled  
Small spills: Flush to sewer with copious amounts of water.  
Large spills: Absorb in sand, vermiculite or other available material and place in a suitable container for disposal by incineration.

## Waste Disposal Method

Dispose of in an approved incinerator.

## SECTION VIII SPECIAL PROTECTION INFORMATION

|                            |                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------|
| Respiration Protection     | None needed in normal laboratory handling at room temperature and a liquid state. |
| Ventilation                | Local Exhaust: None needed<br>Mechanical (General): None needed                   |
| Protective Gloves          | None needed                                                                       |
| Other Protective Equipment | Smock, apron, eye wash station, goggles, fire extinguisher.                       |
| Eye Protection             | Chemical safety glasses                                                           |

## SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing  
When not in use, store in a cool, dry place away from strong oxidizers and fire hazards. Wash thoroughly after handling.

## Other Precautions

Read label on container before using.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Rev. No. 1 Date 11/2/87 Approved: [Signature] Chemical Safety [Signature]

Information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees.

**WARD'S**  
Natural Science Establishment, Inc.

**IMPORTANT**  
**MATERIAL SAFETY DATA SHEET**

READ CAREFULLY BEFORE USING CHEMICAL  
OSHA requires that this form be kept on file.

**MSDS No.** 39-1438