CONTACT : LEONID CHEMICALS
Leonid Chemicals Pvt Ltd
62/A-2 1st Stage,Yeshwanthpur Industrial Suburb
Ashokpuram School Road
Bangalore-560 022, Karnataka, INDIA
Ph: +91-80-2337 8354, Fax: +91-80-2357 4827

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name: Glycerine
Catalog Numbers:
G005

Synonyms:
Glycerol; 1,2,3-Propanetriol; Glyceritol; Glycic Alcohol; 1,2,3-Trihydroxypropane

Company Identification:
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SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS #	:	56-81-5
Chemical Name	:	Glycerine
%	:	100%
EINECS#	:	200-289-5
Hazard Symbols	:	None Listed.
Risk Phrases	:	None Listed.

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Not available.

Potential Health Effects
Eye:
May cause eye irritation.

Skin:
May cause skin irritation. Low hazard for usual industrial handling.

Ingestion:
May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause headache.

Inhalation:
Low hazard for usual industrial handling. Inhalation of a mist of this material may cause respiratory tract irritation.
Chronic:
May cause kidney injury.

SECTION 4 - FIRST AID MEASURES

Eyes:
Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:
Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Remove contaminated clothing and shoes.

Ingestion:
If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation:
Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

SECTION 5 - FIRE FIGHTING MEASURES

General Information:
As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media:
In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam. Use water spray to cool fire-exposed containers.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

General Information:
Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:
Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.

SECTION 7 - HANDLING AND STORAGE

Handling:
Wash thoroughly after handling. Use with adequate ventilation. Wash clothing before reuse.

Storage:
Store in a cool, dry, well-ventilated area away from incompatible substances.

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SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls:
Good general ventilation should be sufficient to control airborne levels.

Personal Protective Equipment

Eyes:
Wear chemical goggles and face shield.

Skin:
Wear appropriate protective gloves to prevent skin exposure.

Clothing:
Wear appropriate protective clothing to prevent skin exposure.

Respirators:
Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State	:	Liquid
Color	:	Clear viscous liquid.
Odor	:	Bland odor
PH	:	Not available.
Vapor Pressure	:	.0025 mm Hg @ 5
Viscosity	:	Not available.
Boiling Point	:	290 deg C
Freezing/Melting Point	:	20 deg F
Autoignition Temperature	:	400 deg C (752.00 deg F)
Flash Point	:	193 deg C (379.40 deg F)
Explosion Limits, lower	:	1.1
Explosion Limits, upper	:	Not available.
Decomposition Temperature	:	290 C
Solubility in water	:	Miscible in water. Insol. in chloroform,
Specific Gravity/Density	:	1.4746
Molecular Formula	:	C3H8O3
Molecular Weight	:	92.0542

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:
Stable.

Conditions to Avoid:
Incompatible materials, ignition sources, excess heat.
Incompatibilities with Other Materials:

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Strong oxidizers. mixtures with hydorgen peroxide are highly explosive; Ignites on contact with potassium permanganate or calcium hypochlorite; nitric acid and sulfuric acid; perchloric acid and lead oxide

Hazardous Decomposition Products:
Carbon monoxide, carbon dioxide.
Hazardous Polymerization: Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

RTECS#:
CAS# 56-81-5: MA8050000

LD50/LC50:
CAS# 56-81-5: Draize test, rabbit, eye: 126 mg Mild; Draize test, rabbit, eye: 500 mg/24H Mild; Draize test, rabbit, skin: 500 mg/24H Mild; Inhalation, rat: LC50 = >570 mg/m3/1H; Oral, mouse: LD50 = 4090 mg/kg; Oral, rabbit: LD50 = 27 gm/kg; Oral, rat: LD50 = 12600 mg/kg; Skin, rabbit: LD50 = >10 gm/kg.

Carcinogenicity:
Glycerine -
Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
See actual entry in RTECS for complete information.

SECTION 12 - ECOLOGICAL INFORMATION

SECTION 13 - DISPOSAL CONSIDERATIONS

Products which are considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local waste regulator for advice. Empty containers must be decontaminated before returning for recycling.

SECTION 14 - TRANSPORT INFORMATION

IATA
Shipping Name: HYDROCHLORIC ACID
Hazard Class: 8
UN Number: 1789
Packing Group: II

IMO
Shipping Name: HYDROCHLORIC ACID
Hazard Class: 8
UN Number: 1789
Packing Group: II

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RID/ADR
Shipping Name: HYDROCHLORIC ACID
Hazard Class: 8
UN Number: 1789
Packing group: II

SECTION 15 - REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives
Hazard Symbols: Not available.
Risk Phrases:
Safety Phrases:
WGK (Water Danger/Protection)
CAS# 56-81-5: 0

United Kingdom Occupational Exposure Limits
CAS# 56-81-5: OES-United Kingdom, TWA 10 mg/m3 TWA (mist)

United Kingdom Maximum Exposure Limits

Canada
CAS# 56-81-5 is listed on Canada's DSL List.
CAS# 56-81-5 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits
CAS# 56-81-5: OEL-AUSTRALIA:TWA 10 mg/m3
OEL-BELGIUM:TWA 10 mg/m3
OEL-FINLAND:TWA 20 mg/m3
OEL-FRANCE:TWA 10 mg/m3
OEL-THE NETHERLANDS:TWA 10 mg/m3
OEL-UNITED KINGDOM:TWA 10 mg/m3
OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

US FEDERAL
TSCA
CAS# 56-81-5 is listed on the TSCA inventory.

SECTION 16 - ADDITIONAL INFORMATION

MSDS Creation Date: 1/11/1995 Revision #0 Date: Original.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental,

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consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.

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