

## Material Safety Data Sheets

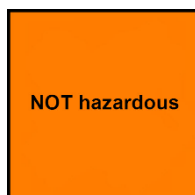
### 1. IDENTIFICATION

Product Name	Glycerin Extra pure
Other Names	1,2,3-Propanetriol; Glycerin; Glycerol (Vegetable source); Glycyl Alcohol
Code No	100-GL-5
Uses	Emulsifier, emollient, plasticizer, humectant, sweetener, antifreeze, in surface coatings and paints, cosmetics, drug and food products. Intermediate for making glycerol derivatives.
Chemical Family	No Data Available
Chemical Formula	C3H8O3
Chemical Name	Glycerine
Product Description	No Data Available
Company	Arman sina.co
Contact Information	<a href="mailto:info@armansina.com">info@armansina.com</a> <a href="http://www.armansina.com">www.armansina.com</a>

### 2. HAZARD IDENTIFICATION

Hazard Classification NOT hazardous

Symbol



### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Ingredients

Chemical Entity	Formula	CAS Number	Proportion
1, 2, 3-Propanetriol	No Data Available	56-81-5	99.0 - 100.0 %

#### 4. FIRST AID MEASURES

##### Description of necessary measures according to routes of exposure

Swallowed	Rinse mouth. Call a POISON CENTRE or doctor/physician if you feel unwell.
Eye	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops or persists. Get medical attention if irritation develops and persists.
Skin	Remove contaminated clothing. Wash off with soap and plenty of water. Get medical attention if irritation develops or persists. If skin irritation occurs: Get medical advice/attention.
Inhaled	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention, if needed.
Advice to Doctor	Treat symptomatically based on individual reactions of patient and judgement of doctor. General advice: If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.
Medical Conditions Aggravated by Exposure	No information available on medical conditions which are aggravated from exposure to this product.

#### 5. FIRE FIGHTING MEASURES

General Measures	Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk.
Flammability Conditions	Product is a combustible liquid.
Extinguishing Media	In case of fire, appropriate extinguishing media include water, Alcohol resistant foam, Carbon Dioxide or dry chemical.
Fire and Explosion Hazard	Contact of glycerine with strong oxidizing agents such as Nitric Acid or other strong acids, Chromium Trioxide, Potassium Chlorate, or Potassium Permanganate may cause an explosion.
Hazardous Products of Combustion	During burning poisonous acrolein may be formed.
Special Fire Fighting Instructions	Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.
Personal Protective Equipment	Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves) or chemical splash suit.
Flash Point	180 °C
Lower Explosion Limit	No Data Available
Upper Explosion Limit	No Data Available
Auto Ignition Temperature	No Data Available
Hazchem Code	No Data Available

#### 6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Eliminate all sources of ignition. Increase ventilation. Avoid walking through spilled product as it may be slippery. Use clean, non-sparking tools and equipment.
Clean Up Procedures	Large Spills: Dike far ahead of spill for later disposal. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for reuse.
Containment	Stop leak if safe to do so.
Decontamination	Following product recovery, flush area with water.
Environmental Precautionary Measures	Do not allow product to reach drains, sewers or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Authority.
Evacuation Criteria	Evacuate all unnecessary personnel.
Personal Precautionary Measures	Personnel involved in the clean up should wear full protective clothing as listed in section 8.

## 7. HANDLING AND STORAGE

Handling	No special precautions required, but avoid eye and skin contact as part of normal industrial hygiene. Prevent formation of mist. Eye and skin contact should be avoided if handling at elevated temperatures. Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with eyes, skin and clothing. Do not inhale product vapours.
Storage	Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in section 10. Avoid contact with strong oxidizing agents such as Nitric Acid or other strong acids, Chromium Trioxide, Potassium Chlorate, or Potassium Permanganate. This product is classified as a 'C2' Combustible Liquid for the purpose of storage and handling in accordance with the requirements of AS1940.
Container	Store in original packaging as approved by manufacturer. Store in clean tight containers to prevent moisture pickup from air. Can be stored in aluminum, stainless steel, fiberglass or resin lined steel vessels.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	Glycerin (mist) CAS no: 56-81-5 TWA = 10 mg/m <sup>3</sup> NOTE: The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. These exposure standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.
Exposure Limits	No Data Available
Biological Limits	No information available on biological limit values for this product.
Engineering Measures	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Adequate ventilation should be provided so that exposure limits are not exceeded. Mechanical ventilation may be necessary if working at elevated temperatures or in enclosed areas.
Personal Protection Equipment	RESPIRATOR: None required for ambient temperature, although an appropriate approved air-purifying respirator should be used if a mist, vapour or dust is generated. An approved self-contained breathing apparatus or air-supplied respirator is recommended if the concentration exceeds the capacity of cartridge respirator. WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres (AS1715/1716). EYES: None required, although eye protection is recommended as part of good industrial hygiene (AS1336/1337). HANDS: None required with normal use (AS2161). CLOTHING: Normal work clothing and safety footwear (AS3765/2210).
Work Hygienic Practices	No Data Available

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Clear Liquid
Odour	Bland
Colour	Water white
pH	No Data Available
Vapour Pressure	<= 0.008 mm Hg / 2.1 e-005 IPa (@ No Data Available)
Relative Vapour Density	No Data Available
Boiling Point	290°C
Melting Point	18°C
Freezing Point	No Data Available
Solubility	100%
Specific Gravity	1.26

Flash Point	180 °C
Auto Ignition Temp	No Data Available
Evaporation Rate	No Data Available
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	No Data Available
Specific Heat	No Data Available
Molecular Weight	No Data Available
Net Propellant Weight	No Data Available
Octanol Water Coefficient	No Data Available
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	No Data Available
Potential for Dust Explosion	Product is a liquid.
Fast or Intensely Burning Characteristics	No Data Available
Flame Propagation or Burning Rate of Solid Materials	No Data Available
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No Data Available
Properties That May Initiate or Contribute to Fire Intensity	No Data Available
Reactions That Release Gases or Vapours	No Data Available
Release of Invisible Flammable Vapours and Gases	No Data Available

## 10. STABILITY AND REACTIVITY

General Information	Combustible liquid. Physical/Chemical Hazards: Contact of glycerine with strong oxidizing agents such as Nitric Acid or other strong acids, Chromium Trioxide, Potassium Chlorate, or Potassium Permanganate may cause an explosion.
Chemical Stability	Product is stable under normal conditions of use, storage and temperature.
Conditions to Avoid	None identified.
Materials to Avoid	Contact of glycerine with strong oxidizing agents such as Nitric Acid or other strong acids, Chromium Trioxide, Potassium Chlorate, or Potassium Permanganate may cause an explosion.
Hazardous Decomposition Products	Irritants. Toxic gas. Thermal decomposition may release acrolein.
Hazardous Polymerisation	Hazardous Polymerization will not occur.

## 11. TOXICOLOGICAL INFORMATION

General Information	TOXICITY DATA: LD50 oral, rat >2000 mg/Kg IRRITATION DATA Skin, rabbit: Not irritating Eye, rabbit: Not irritating
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<b>Eyelrritant</b>	Accidental exposure to the eyes will cause only a mild but transient irritation.
<b>Ingestion</b>	Unlikely to be harmful unless excessive amount.
<b>Inhalation</b>	Not applicable at ambient temperature. Glycerine mist may be irritative to respiratory tract.
<b>SkinIrritant</b>	Unlikely to be irritant. Heated product may cause thermal burns if contacted.
<b>Carcinogen Category</b>	No Data Available

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	1,2,3PROPANETRIOL (56815): LC50 Rainbow trout,donaldson trout (Oncorhynchus mykiss): 51000 - 57000 mg/l 96.00 hours Ecotoxicity: Components of this product have been identified as having potential environmental concerns. Environmental effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
<b>Persistence/Degradability</b>	Product is biodegradable. Even though this product is readily biodegradable, it must not be indiscriminately discarded into the environment.
<b>Mobility</b>	Not established.
<b>Environmental Fate</b>	No Data Available
<b>Bioaccumulation Potential</b>	Not established.
<b>Environmental Impact</b>	No Data Available

## 13. DISPOSAL CONSIDERATIONS

<b>General Information</b>	Dispose of in accordance with all local regulations. All empty packaging should be disposed of in accordance with Local Regulations or recycled/reconditioned at an approved facility.
<b>Special Precautions for Land Fill</b>	Contact a specialist disposal company or the local waste regulator for advice.

## 14. TRANSPORT INFORMATION

### Land Transport

<b>Proper Shipping Name</b>	GLYCERINE
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available

### Sea Transport

#### IMDG

<b>Proper Shipping Name</b>	GLYCERINE
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available
<b>EMS</b>	No Data Available
<b>Marine Pollutant</b>	No

**Air Transport  
IATA**

Proper Shipping Name	GLYCERINE
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available

**15. OTHER INFORMATION**

Revision	1
Key/Legend	< Less Than > Greater Than atm Atmosphere CAS Chemical Abstracts Service (Registry Number) cm Square Centimetres CO2 Carbon Dioxide COD Chemical Oxygen Demand Degrees Celcius Degrees Farenheit g Grams g/cm Grams per Cubic Centimetre g/l Grams per Litre HSNO Hazardous Substance and New Organism IDLH Immediately Dangerous to Life and Health immiscible Liquids are insoluable in each other. inHg Inch of Mercury inH2O Inch of Water K Kelvin kg Kilogram kg/m Kilograms per Cubic Metre lb Pound LC50 LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours. LD50 LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals. ltr or L Litre m Cubic Metre mbar Millibar mg Milligram mg/24H Milligrams per 24 Hours mg/kg Milligrams per Kilogram mg/m Milligrams per Cubic Metre Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present. mm Millimetre mmH2O Millimetres of Water mPa.s Millipascals per Second N/A Not Applicable NIOSH National Institute for Occupational Safety and Health NOHSC National Occupational Health and Safety Commission OECD Organisation for Economic Co-operation and Development Oz Ounce PEL Permissible Exposure Limit Pa Pascal ppb Parts per Billion ppm Parts per Million ppm/2h Parts per Million per 2 Hours ppm/6h Parts per Million per 6 Hours psi Pounds per Square Inch R Rankine RCP Reciprocal Calculation Procedure STEL Short Term Exposure Limit TLV Threshold Limit Value tne Tonne TWA Time Weighted Average ug/24H Micrograms per 24 Hours UN United Nations wt Weight