



BASP CHEMICAL PRODUCTS LTD.

MATERIAL SAFETY DATA SHEET

GLYCERINE – MSDS

Chemical Product and Company Identification

Product Name : Glycerin
Chemical Name : Glycerin
Chemical Formula : C₃H₅(OH)₃
Distributor : **BASP Chemical Products Limited**
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Composition and Information of Ingredients

COMPOSITION		
Name	CAS #	% by Weight
Glycerin	56-81-5	100
Toxicological Data on Ingredients: Glycerin: ORAL (LD50): Acute: 12600 mg/kg		

Hazardous Identification

Potential Acute Health Effects: Slightly hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS :Not available.
MUTAGENIC EFFECTS :Not available.
TERATOGENIC EFFECTS :Not available.
DEVELOPMENTAL TOXICITY :Not available.

The substance may be toxic to kidneys. Repeated or prolonged exposure to the substance can produce target organs damage.



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First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

Skin Contact:

In case of skin contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used, washing clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation:

If inhaled by mistake, get some fresh air immediately. If the person is not able to breath, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion:

Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantity of material is swallowed, call a physician immediately

Fire and Explosion Data

Flammability of the Product: May be combustible at high temperature.

Auto – Ignition Temperature: 370°C (698°F)

Flash Points :Not Applicable

Flammable Limits: LOWER: 0.9%

Products of Combustion: These products are carbon oxides (CO, CO₂), irritating and toxic fumes.

Fire Hazards in Presence of Various Substances: Slightly flammable to flammable in presence of open flames and sparks, of heat, of oxidizing materials. Non-flammable in presence of shocks.

Explosion Hazards in Presence of Various Substances: Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. Explosive in presence of oxidizing materials.

Risks of explosion of the product in presence of static discharge: Not Available.



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Fire Fighting Media and Instrustion: SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. **DO NOT USE WATER JET.**

Special Remarks on Explosion Hazards: Glycerin is incompatible with strong oxidizers such as chromium trioxide, potassium chlorate, or potassium permanganate and may explode on contact with these compounds. Explosive glyceryl nitrate is formed from a mixture of glycerin and nitric and sulfuric acids. Perchloric acid , lead oxide + glycerin form perchloric esters which may be explosive. Glycerin and chlorine may explode if heated and confined.

Accidental Release Measures

Small Spill:

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

LARGE Spill

Stop leak if without risk. If the product is in its solid form: Use a shovel to put the material into a convenient waste disposal container. If the product is in its liquid form: Do not get water inside container. Absorb with an inert material and put the spilled material in an appropriate waste disposal. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Handling and Storage

Precautions:

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area. Hygroscopic



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Exposure Control / Personal Protection

Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection:

Safety glasses. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product

Exposure Limits: Consult local authorities for acceptable exposure limits

Physical and Chemical Properties

Physical State and appearance:	Liquid. (Viscous (Syrupy) liquid.)
Odor:	Mild
Taste:	Sweet.
Molecular Weight:	92.09 g/mole
Color:	Clear Colorless.
pH (1% soln/water):	Not available.
Boiling Point:	290°C (554°F)
Melting Point:	19°C (66.2°F)
Critical Temperature:	Not available

Solubility in Water: Miscible in cold water, hot water and alcohol. Partially soluble in acetone. Very slightly soluble in diethyl ether (ethyl ether). Limited solubility in ethyl acetate. Insoluble in carbon tetrachloride, benzene, chloroform, petroleum ethers, and oils.

Vapor Pressure: 0 kPa (@ 20°C)

Vapor Density: 3.17 (Air = 1)

Volatility: Not applicable.

Odor Threshold: Not applicable.

Water / Oil Dist. Coeff.: The product is more soluble in water; $\log(\text{oil/water}) = -1.8$

Dispersion Properties: See solubility in water, acetone.

Solubility in solvents: Not applicable.



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Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Avoid contact with incompatible materials, excess heat and ignition, sources, moisture.

Incompatibility with various substances: Highly reactive with oxidizing agents.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Hygroscopic. Glycerin is incompatible with strong oxidizers such as chromium trioxide, potassium chlorate, or potassium permanganate. Glycerin may react violently with acetic anhydride, aniline and nitrobenzene, chromic oxide, lead oxide and fluorine, phosphorous triiodide, ethylene oxide and heat, silver perchlorate, sodium peroxide, sodium hydride.

Toxicological Information

Routes of Entry: Absorbed through skin. Eye contact.

Toxicity to Animals: Not Available.

Chronic Effects on Humans: May cause damage to the following organs: kidneys.

Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Special Remarks on Chronic Effects on Humans:

Glycerin is transferred across the placenta in small amounts. May cause adverse reproductive effects based on animal data (Paternal Effects (Rat): Spermatogenesis (including genetic material, sperm morphology, motility, and count), Testes, epididymis, sperm duct). May affect genetic material.

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Low hazard for normal industrial handling or normal workplace conditions. Skin: May cause skin irritation. May be absorbed through skin Eyes: May cause eye irritation with stinging, redness, burning sensation, and tearing, but no eye injury. Ingestion: Low hazard. Low toxicity except with very large doses. When large doses are ingested, it can cause gastrointestinal tract irritation with thirst (dehydration), nausea or vomiting diarrhea. It may also affect behavior/central nervous system/nervous system (central nervous system depression, general anesthetic, headache, dizziness, confusion, insomnia, toxic psychosis, muscle weakness, paralysis convulsions), urinary system / kidneys (renal failure hemoglobinuria), cardiovascular system (cardiac arrhythmias), liver. It may also cause elevated blood sugar. Inhalation: Due to low vapor pressure, inhalation of the vapors at room temperature is unlikely. Inhalation of mist



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may cause respiratory tract irritation. Chronic Potential Health Effects: Ingestion: Prolonged or repeated ingestion may affect the blood (hemolysis, changes in white blood cell count), endocrine system (changes in adrenal weight), respiratory system, and may cause kidney injury).

Ecological Information

Ecotoxicity: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Behaviour in Sewage: Not available.

Disposal Consideration

Product Disposal:

Untreated SBP waste must never be discharged directly in to the sewers. Review National / Regional regulations.

Packaging Disposal:

Packing material does not get contaminated & can be disposed off by usual methods in accordance with National / Regional requirements.

Transport Information

Road & Rail Transport : Not available.

GGVE / GGVS : Not applicable

IMDG : Not applicable

Air Transport : Not applicable

P Phrases : Not applicable

S Phrases : Not applicable



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Regulatory Information

Health and safety information : Not Applicable

Protective Equipment:

Gloves. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Safety glasses.

Other Information

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 event shall **BASP Chemical Products Limited** be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if **BASP Chemical Products Limited** has been advised of the possibility of such damages