

GLYCERINE, ORGANIC – SAFETY DATA SHEET

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

PRODUCT IDENTIFIER

Synonyms	C3-H8-O3, glycerin, "glycerin, anhydrous", "glycerin, synthetic", glycerine, glyceritol, "glycyl alcohol", "1, 2, 3-propanetriol", trihydroxypropane, "1, 2, 3-trihydroxypropane"
Uses	As emulsifier, emollient, plasticiser, humectant, sweetener, antifreeze, in surface coatings and paints, drug and food products. Intermediate for glycerol derivatives.
Chemical Formula	C3H8O3
Chemical Name	Glycerine

DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Registered distributor company name	PureNature
Address	626A Rosebank Road, Avondale, Auckland 1026 New Zealand
Telephone	+649 8135619
Website	www.purenature.co.nz
Email	info@purenature.co.nz

EMERGENCY TELEPHONE NUMBER

Emergency telephone numbers	111
Other emergency telephone numbers	0800 764 766 NZ National Poisons Centre

SECTION 2 HAZARDS IDENTIFICATION

HSNO Classifications: Classified as Non-Hazardous according to the criteria of the New Zealand Hazardous Substances and New Organisms Legislation.	
	Non-hazardous. Health injuries are not known or expected under normal use. Adverse ecological effects are not known or expected.
Precautionary Statements	
PREVENTION	Wash hands thoroughly after handling. Wear gloves and eye/face protection.
RESPONSE	If irritation occurs: seek medical attention.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Glycerine	Chemical Entity	1,2,3-Propanetriol
CAS No	56-81-5	Proportion %	98.5 – 99.5% w/w

SECTION 4 FIRST AID MEASURES

NZ Poisons Centre 0800 POISON (0800 764 766) | NZ Emergency Services: 111

Inhalation:	If fumes or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.
Skin contact:	If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Eye contact:	If this product comes in contact with the eyes: Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. If pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Ingestion:	Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poison Centre (0800 764766) or a doctor.
Note to Physician	Treat symptomatically.

SAFETY DATA SHEET

SECTION 5 FIREFIGHTING MEASURES

Extinguishing Media	In case of fire, use appropriate extinguishing media most suitable for surrounding fire conditions: water, water spray, dry powder, foam, carbon dioxide (CO ₂).
Fire Fighting	Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent spillage from entering drains or water course. Use water delivered as a fine spray to control fire and cool adjacent area. Avoid spraying water onto liquid pools. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire.
Fire Explosion Hazard	Combustible. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO). May emit acrid smoke. Mists containing combustible materials may be explosive. Combustion products include: carbon dioxide (CO ₂), other pyrolysis products typical of burning organic material. May emit poisonous fumes of Acrolein if heated above 280°C. Acrolein appears as a colourless gas in smoke and is highly toxic. It causes severe irritation to exposed skin, eyes and the nasal passage. May emit corrosive fumes.
Fire Incompatibility	Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.
Personal Protective Equipment	Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots and gloves).

SECTION 6 ACCIDENTAL RELEASE MEASURES

Minor Spills	Slippery when spilt. Remove all ignition sources. Contain and clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite. Wipe up. Place in a suitable labelled container for waste disposal.				
Major Spills	Slippery when spilt. Wear breathing apparatus plus protective gloves. Prevent spillage from entering drains or water courses. No smoking, naked lights or ignition sources. Increase ventilation. Stop leak if safe to do so. Contain spill with sand, earth or vermiculite. Collect recoverable product into labelled containers for recycling. Absorb remaining product with sand, earth or vermiculite. Collect solid residues and seal in labelled drums for disposal. Wash area with plenty of water and detergent. Personal Protective Equipment advice is contained in Section 8 of the SDS.				
Protective Action Criteria (PAC) – SCAPA, 2015	Chemical (CAS Number) Glycerine - mist (56-81-5)	PAC-1 45	PAC-2 180	PAC-3 1100	Units mg/m ³
	PAC-1: Mild, transient health effects. PAC-2: Irreversible or other serious health effects that could impair the ability to take protective action. PAC-3: Life-threatening health effects.				

SECTION 7 HANDLING AND STORAGE

Handling	Wear protective clothing when risk of exposure occurs. Avoid contact with incompatible materials. Keep containers securely sealed when not in use. Avoid physical damage to containers. Always wash hands with soap and water after handling. Use good occupational work practice. Observe manufacturer's storing and handling recommendations. Do not allow clothing wet with material to stay in contact with skin.
Suitable Container	Original packaging. Metal can or drum. Check all containers are clearly labelled and free from leaks.
Storage Incompatibility	Avoid reaction with oxidising agents. Avoid reaction with strong oxidising agents such as chromium trioxide, acetic anhydride, chromium oxides, calcium oxychloride, alkali metal hydrides, potassium chlorate and potassium permanganate as an explosive or violent reaction may occur.
Storage Requirements	Keep containers securely sealed. No smoking, naked lights or ignition sources. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storing and handling recommendations.

SAFETY DATA SHEET

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Controls	Source	Material	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³	Peak ppm	Peak mg/m ³	TWA F/CC
		New Zealand Workplace Exposure Standards (WES 2013)	glycerol (Glycerin mist)		10				
Material Data	The mist is considered to be a nuisance particulate which appears to have little adverse effect on the lung and does not produce significant organic disease or toxic effects.								
Engineering Controls	VENTILATION SYSTEM 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. Refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.								
Personal Protection Equipment (PPE)	Personal Respirator: For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. For more information see Australian/New Zealand Standard, AS/NZS 1715:2009 and AS/NZS 1716:2003. Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Refer to AS/NZS 2161.1:2000 Occupational Protective Gloves – Selection, use and maintenance. Eye Protection: Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.								

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear Liquid	Melting Point / Freezing Point	64°F / 20°F
Odour	Odourless	Initial Boiling Point and Boiling Range	210°F and 554°F
Odour Threshold	Not Determined	Flash Point	>350°F
pH	6.00 – 7.00	Evaporation Rate (Butyl Acetate=1)	n/a
Upper Flammability Exp Ltd	Not applicable	Flammability (solid, gas)	Not Flammable
Lower Flammability Exp Ltd	Not applicable	Vapour Pressure (mmHg)	17 mmHg@20°C
Solubility(ies)	Miscible	Vapour density (AIR=1)	<1
Partition Coefficient (n-octanol / water)	Not determined	Relative Density (or specific gravity) (H20=1)	Min 1.2552@20°C
Auto-Ignition Temperature	Not determined	Decomposition Temperature	Not determined
Viscosity	Not determined	VOC Content (lbs/gal or g/l)	Not determined

SECTION 10 STABILITY AND REACTIVITY

Chemical stability	Product is stable under normal conditions of use, storage and temperature.
Conditions to avoid	Avoid excessive heat, direct sunlight, static discharges, moisture and freezing and high temperatures. Decomposes above 290°C.
Hazardous decomposition	Avoid reaction with strong oxidising agents, alkali metal hydrides, potassium chlorate and potassium permanganate as an explosive or violent reaction may occur. Keep containers dry and tightly closed to avoid moisture absorption and contamination.
Hazardous Polymerization	Thermal decomposition can lead to release of Acrolein if heated above 280°C.
Hazardous Reaction	Hazardous polymerization will not occur.

SAFETY DATA SHEET

SECTION 11 TOXICOLOGICAL INFORMATION

Potential Health Effects	ACUTE HEALTH EFFECTS: Swallowed: Ingestion of insignificant quantities may produce nausea and vomiting. Eye: Prolonged eye contact may cause inflammation characterised by a temporary redness of the conjunctiva (similar to windburn). Skin: Skin contact is not expected to have harmful health effects. Inhaled: The material is not thought to produce adverse health effects or irritation of the respiratory tract.
Chronic Health Effects	No data available.
Toxicity and Irritation Data	Toxicity: Acute Oral Toxicity, Rat, LD50: 12600 mg/kg. Acute Dermal Toxicity, LD50: >4000 mg/kg. Inhalation: No data available.
	Irritation: The material may be irritating to the eye, with prolonged contact causing inflammation. The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (non-allergic).
	Sensitisation (respiratory/contact): No evidence for skin sensitization. Carcinogenic effects: Not classified or listed by IARC, NTP, or Cal Prop65. Mutagenic effects: Not expected to be mutagenic. Reproductive or developmental effects: Not expected to cause adverse reproductive effects. Aspiration hazard: No information available. Specific target organ toxicity: No information available.

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity	Non-hazardous in the aquatic environment.
Toxicity Data	Fish, (<i>Carassius auratus</i>), 24hr LC50: >5000 mg/L. Crustacean, (<i>Daphnia magna</i>), 24hr EC50: >10000 mg/L. Algae IC50: >2900 mg/l Bacteria EC50: >10000 mg/l (<i>Pseudomonas putida</i>).
Persistence and Biodegradability	DOD5: 82% of ThOD and 86% of COD. Readily biodegradable: Readily biodegradable under aerobic conditions.
Environmental Fate (Exposure)	100% of glycerine is expected to end up in the water phase.
Bioaccumulative Potential	Log Kow: -1.76. Glycerine is expected to have a low potential for sorption to soil and is not expected to bioaccumulate. Calculated bioconcentration factor: 3.162. DO NOT discharge into sewer or waterways.

SECTION 13 DISPOSAL CONSIDERATION

Recycle wherever possible.

Consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.

Dispose of by: Burial in a licensed land-fill or Incineration in a licensed apparatus (after admixture with suitable combustible material).

Empty contaminated packaging should be taken for local recycling, recovery or waste disposal.

SECTION 14 TRANSPORT INFORMATION

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: UN, IATA, IMDG

Not classified as a Dangerous Good under NZS 5433:2007 Transport of Dangerous Goods on Land

SECTION 15 REGULATORY INFORMATION

REGULATIONS

Non-hazardous

Glycerine CAS Number 56-81-5 is listed in the New Zealand Inventory of Chemicals.

Glycerine (CAS: 56- 81- 5) is found on the following regulatory lists;

CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP.

IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances International Council of Chemical Associations (ICCA) - High Production Volume List.

New Zealand Workplace Exposure Standards (WES).

OECD Representative List of High Production Volume (HPV) Chemicals.

SAFETY DATA SHEET

SECTION 16 OTHER INFORMATION

NEW ZEALAND POISON CENTRE 0800 POISON (0800 764 766)

NZ EMERGENCY SERVICES: 111

Abbreviations:

ACGIH – American Conference of Governmental Industrial Hygienists.

ACVM – Agricultural Chemicals and Veterinary Medicines

AICS – Australian Inventory of Chemical Substances.

AOX – Absorbable organic halogens.

APF – Assigned Protection Factor.

BOD – Biochemical Oxygen Demand

China IECSC – Inventory of Existing Chemical Substances Produced or Imported in China

COD – Chemical Oxygen Demand

DSL – Canadian Domestic Substances List.

EINECS – European Inventory of Existing Commercial Chemical Substances.

ENCS – Japanese Existing and New Chemical substances.

IARC – International Agency for Research on Cancer.

ISHL – Japanese Industrial Safety and Health Law List of Chemicals.

LOEL – Lowest Observed Effect Level.

LDLO – Lethal Dose Low (the lowest dosage per unit of bodyweight of a substance known to have resulted in fatality in a particular animal species).

NOEC – No Observed Effect Concentration.

NTP – National Toxicology Program.

NZIoC – New Zealand Inventory of Chemicals.

OECD HPV – The Organisation for Economic Co-operation and Development High Product Volume Chemicals.

PEL – Permissible exposure limit.

PPE – Personal Protective Equipment.

Prop 65 – California Proposition 65 List of Chemicals.

RTECS – Registry of Toxic Effects of Chemical substances

STEL – Short term exposure limit.

TOC – Total Organic Carbon.

TSCA – US Toxic Substances Control Act Existing Chemicals.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

VOC – Volatile Organic Compounds.

The information contained in this Safety Data Sheet is obtained from current and reliable sources. PureNature provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This Safety Data Sheet summarises our best current knowledge of the health and safety hazard information of the product but does not claim to be all inclusive. This document is intended only as a guide to the appropriate handling of this material.

Revision: 00 – 28/ 02/ 2018 Glycerine, Organic: Harmonised SDS from the manufacturer SA203, SA062, SA082 00 300917

Version: 01 Revision Date: 04/05/2020: PIL SDS Change of address - no changes to SDS.