SECTION 1 : CHEMICAL PRODUCT AND COMPANY INFORMATION

SYNONYMS:	C3-H8-O3, glycerin, "glycerin, anhydrous", "glycerin, synthetic", glycerine, glycerol, "glycyl alcohol", "1, 2, 3-propanetriol", trihydroxypropane, "1, 2, 3-trihydroxypropane"
PROPER SHIPPING NAME:	Not regulated for transport internationally
CAS NUMBER:	56-81-5
UN NUMBER:	Not Regulated
PRODUCT USE:	As humectant and/or emollient
SUPPLIER:	Agmax Industries Limited, 63b Allens Road, East Tamaki, 2013, Auckland Telephone: +64 9 271 5290
24 H Emergency Contact:	**0800 243 622 (24 Hours)**
Website:	www.agmax.co.nz
Email:	info@agmax.co.nz

SECTION 2 : HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

Classified as Non-Hazardous according to the criteria of the New Zealand Hazardous Substances and New Organisms legislation and GHS 7th Edition.

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

Ingredient	CAS Number	Proportion
Glycerine	56-81-5	>96%

SECTION 4 : FIRST AID MEASURES

SWALLOWED

Immediately give a glass of water.
First aid is not generally required. If in doubt, contact a Poison Centre (0800 764766) or a doctor.

EYE

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.

SKIN

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.

INHALED

If fumes or combustion products are inhaled remove from contaminated area.
Other measures are usually unnecessary.

NOTES TO PHYSICIAN

Treat symptomatically.

SECTION 5 : FIRE FIGHTING 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.
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)	PAC-1	PAC-2	PAC-3	Units
Glycerine – mist (56-81-5)	45	180	1100	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

PROCEDURE FOR 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.

SECTION 8 : EXPOSURE CONTROLS & PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m³	STEL ppm	STEL mg/m³	Peak ppm	Peak mg/m³	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 RESPIRATORS 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. mixing or spraying.

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

Oily, colourless, odourless liquid, with syrupy, sweet taste.

PHYSICAL PROPERTIES

Miscible with water and alcohol. Insoluble in benzene, ether, chloroform, fixed and volatile oils. Absorbs water from the air. Also absorbs hydrogen sulphide, hydrogen cyanide and sulphur dioxide.

PROPERTY	VALUE
State:	Liquid
Molecular Weight:	92.1
Melting Range (°C):	18
Boiling Range (°C):	290
Solubility in water (g/L):	Miscible
pH (1% solution):	~7
pH (as supplied):	No data available
Specific Gravity (water=1, 20˚C):	1.2-1.3
Bulk Density:	No data available
Volatile Component (%vol, 38˚C):	0
Relative Vapor Density(air=1):	3.17
Vapour Pressure (kPa):	<0.1
Autoignition Temp (°C):	370
Flash Point (°C):	160
Lower Explosive Limit (%):	3
Upper Explosive Limit (%):	19
Decomposition Temp (°C):	290
Viscosity:	No data available
Evaporation Rate:	Non Volatile

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.

INCOMPATIBLE MATERIALS

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 DECOMPOSITION

Thermal decomposition can lead to release of Acrolein if heated above 280˚C.

HAZARDOUS REACTIONS

Hazardous polymerization will not occur.

SECTION 11 : TOXOLOGICAL INFORMATION

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, LD_{50}: 12600 mg/kg.
Acute Dermal Toxicity, LD_{50}: >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.

SECTION 12 : ECOLOGICAL INFORMATION

ECOTOXICITY
Non-hazardous in the aquatic environment.
TOXICITY DATA
Fish, (*Carassius auratus*), 24hr LC50: >5000 mg/L.
Crustacean, (*Daphnia magna*), 24hr EC50: >10000 mg/L.
Algae IC50: >2900 mg/l Bacteria EC50: >10000 mg/l (Pseudomonas putida).
Persistence and Degradability
DOD5: 82% of ThOD and 86% of COD.
Readily biodegradable: Readily biodegradable under aerobic conditions.
Mobility
Completely soluble.

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 CONSIDERATIONS

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.

SECTION 16 : OTHER INFORMATION

New Zealand Poisons Information Center 0800 POISON (0800 764 766)

EPA	The Environmental Protection Authority of New Zealand
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
HSHO	Hazardous Substances and New Organisms Act 1996
MPI	Ministry for Primary Industries

Disclaimer:

The data given relates to this product alone, and not to its use in conjunction with other substances or products. In such circumstances, assuming the combination is permitted, refer to product labels, be guided by the most hazardous of the substances involved and observe the more stringent hazard controls applicable.
The information contained in this Safety Data Sheet was obtained from current and reliable sources. The data is supplied without warranty, expressed or implied regarding its correctness and accuracy. It is the user's responsibility to determine safe conditions for use of this product and to assume liability for loss, injury, damage, or expense resulting from improper use of this product.

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