1. Identification of Substance & Company

Product

Product name	TriniSpray
Product code	not assigned
HSNO approval	HSR002563
Approval description	Embalming Products (Flammable) Group Standard 2020
UN number	1170
Proper Shipping Name	ETHANOL SOLUTION
DG class	3
Packaging group	III
Hazchem code	3Y
Uses	Sanitizer

Company Details

Company	**SANTER SUPPLIES**
Address	18 Faulke Avenue Wainuiomata Lower Hutt 5014 New Zealand
Website	www.santersupplies.com

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002563, Embalming Products (Flammable) Group Standard 2020). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Hazard Classification) Notice 2020.

GHS 7 Classes	Hazard Statements
Flammable liquid category 3	H226 - Flammable liquid and vapour.
Eye irritant category 2	H319 - Causes serious eye irritation.

SYMBOLS

WARNING

Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements

Prevention

P103 - Read label before use.
P210 - Keep away from ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P264 - Wash hands thoroughly after handling.
P280 - Wear protective gloves/eye/face protection.
P280 - Wear eye protection.

Response	P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 - If eye irritation persists: Get medical advice/attention.
Storage	P403+P235 - Store in a well-ventilated place. Keep cool.
Disposal	P501 - Dispose of contents/container in accordance with local/regional/national/international regulation.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Concentration
Ethanol	64-17-5	60-100%
Isopropanol	67-63-0	5-10%

This is a commercial product whose exact ratio of components may vary slightly. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid facilities	Ready access to running water is recommended. Accessible eyewash is recommended.

Exposure

Swallowed	IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting. Give a glass of water to drink.
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin contact	This product is non-irritating to skin. No further measures should be required.
Inhaled	Generally, inhalation of fumes/vapours/dusts is unlikely to result in adverse health effects. If coughing, dizziness or shortness of breath is experienced, remove the patient to fresh air immediately. If patient is unconscious, place in the recovery position (on the side) for transport and contact a doctor.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards:	Vapours may form an explosive mixture in air which can be ignited by many sources such as pilot lights, open flames, electrical motors, switches and static electricity.
Suitable extinguishing substances:	Carbon dioxide, extinguishing powder, foam.
Unsuitable extinguishing substances:	Unknown.
Products of combustion:	Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.
Protective equipment:	Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.
Hazchem code:	3Y

6. Accidental Release Measures

Containment
If greater than 10000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.

Emergency procedures
In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).

Clean-up method
Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

Disposal
Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.

Precautions
Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. Storage & Handling

Storage
Store locked up. Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10. Location test certificates must be available if storing >500 L (closed > 5 L), 1500 L (closed ≤ 5 L), 250 L (open). Containers (and outer packaging) must bear the prescribed labelling, including the Hazchem code, UN number, flammability warning and name of contents.

Handling
Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m^3 for respirable particulates and 10mg/m^3 for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Stds	Ingredient	WES-TWA	WES-STEL
	ethanol	200ppm, 380mg/m^3 (oto)	800ppm, 1520mg/m^3 (oto)
	isopropanol	400ppm, 983mg/m^3	500ppm, 1230mg/m^3

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

General
Personal Protective Equipment (PPE) should not be used as the primary means of exposure protection, except in the event of an accident or emergency situation or where all other means of protection have proven to inadequate.
Clean PPE after use or dispose of as appropriate. Store PPE for re-use in a clean place. Regular training on the correct use of PPE should be provided. In particular the correct fitting and use of respirators and where applicable the cleaning of respirators should be undertaken.

Eyes

Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes are possible. Select eye protection in accordance with AS/NZS 1337.

Skin

Protective gloves and clothing are not normally necessary. However, it is prudent to wear gloves when handling chemicals in bulk or for an extended period of time.

Respiratory

A respirator when airborne concentrations approach the WES (section 8). Respirators must have filters appropriate to the duty and comply with AS/NZS1716 and selected, used and maintained in accordance with AS/NS 1715. Use a respirator with an organic vapour cartridge. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order. Fit testing and clear guidelines and training for use and maintenance of PPE are necessary.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	clear colourless liquid
Odour	alcohol-like
Odour Threshold	no data
pH	6.6-7.5 (100%)
Freezing/melting point	no data
Boiling Point	no data
Flashpoint	24°C (closed cup)
Flammability	no data
Upper & lower flammable limits	no data
Vapour pressure	no data
Vapour density	no data
Specific gravity/density	0.84-0.844
Solubility	miscible in water
Partition coefficient	no data
Auto-ignition temperature	no data
Decomposition temperature	no data
Viscosity	no data
Particle Characteristics	no data

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Flammable substance. Avoid heat, sparks, flames and any other sources of ignition.Containers should be kept closed in order to avoid contamination.
Incompatible groups	Strong oxidizing agents, peroxides, acid chlorides, acid anhydrides, alkali metals, ammonia.
Substance Specific Incompatibility	Thermal decomposition is highly dependant on conditions. A complex mixture of airborne solids, liquids and gases, including carbon monoxide, carbon dioxide and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.
Hazardous decomposition products	Will react with strong oxidising materials.
Hazardous reactions	Stable

11. Toxicological Information

Summary

IF SWALLOWED: may harmful. Symptoms include nausea, vomiting, gastrointestinal irritation, pain and diarrhoea. Impaired coordination, slurred speech, double vision, similar symptoms as alcohol intoxication. If vomit is aspired into lungs, chemical pneumonitis is possible.
IF IN EYES: may cause eye irritation.
IF INHALED: may cause dizziness or drowsiness and similar symptoms as if swallowed.
CHRONIC TOXICITY: Repeated ingestion of ethanol by pregnant women may affect the developing foetus (foetal alcohol syndrome). Ethanol has been shown to be carcinogenic in long-term studies only when consumed as alcoholic beverage.

Supporting Data

Acute	**Oral**	Using LD_{50}'s for ingredients, the Acute Toxicity Estimate (ATE) (oral) for the mixture is >2,000 mg/kg. Data considered includes: Ethanol 7060mg/kg (rat), isopropanol 3600 mg/kg (mouse).
	Aspiration	This mixture is not considered an aspiration hazard.
	Dermal	Using LD_{50}'s for ingredients, the Acute Toxicity Estimate (ATE) (dermal) for the mixture is >2,000 mg/kg. Data considered includes: Ethanol LDLo (rabbit): 20g/kg, isopropanol not reported.
	Inhaled	Using LD_{50}'s for ingredients, the Acute Toxicity Estimate (ATE) (inhalation) for the mixture is >5mg/L/4h. Data considered includes: Ethanol LC_{50}: 20000ppm/10H, isopropanol not reported.
	Eye	Ethanol and isopropanol are considered to be irritating to the eyes.
	Skin	No data for mixture is available. The mixture is not considered to be a skin irritant.
Chronic	**Sensitisation**	No data for mixture is available. No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No data for mixture is available. No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	No ingredient present at concentrations > 0.1% is considered a carcinogen by the EPA. Ethanol has been shown to be carcinogenic in long-term studies only when consumed as alcoholic beverage.
	Reproductive / Developmental	No data for mixture is available. There is limited evidence of effects to the unborn child for high doses of ethanol. Ethanol is not classified as a reproductive toxicant by the EPA.
	Systemic	Ethanol and isopropanol are considered central nervous system depressant. Chronic exposure (by ingestion) causes effects to the brain, liver and kidney. Ethanol is not classified as STOT by the EPA.
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This mixture is not considered harmful towards the environment. In all cases prevent run-off to drains, sewers and waterways.

Supporting Data

Aquatic	Using EC_{50}'s for ingredients, the calculated EC_{50} for the mixture is > 100 mg/L. Data considered includes: Ethanol LC_{50} Fish (96h) 11000mg/L, LC_{50} Crustaceans (48h) 9280mg/L.
Bioaccumulation	Ethanol is readily biodegradable. The Half-life of ethanol in surface water ranges from 6.5 to 26 hours. Atmospheric degradation is expected to be rapid.
Degradability	No evidence of soil toxicity for the mixture or any of the ingredients.
Soil	This product is not considered harmful to terrestrial vertebrates.
Terrestrial vertebrate	The mixture is not considered harmful to terrestrial invertebrates.
Terrestrial invertebrate	Not designed as a biocide.
Biocidal	Sanitiser

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007
Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a hazardous substance for transport.

UN number:	1170	**Proper shipping name:**	ETHANOL SOLUTION
Class(es)	3	**Packing group:**	III
Precautions:	Flammable liquid	**Hazchem code:**	3Y

IMDG

UN number:	1170	**Proper shipping name:**	ETHANOL SOLUTION
Class(es)	3	**Packing group:**	III
Precautions:	Flammable liquid	**EmS**	F-E, S-D

IATA

UN number:	1170	**Proper shipping name:**	ETHANOL SOLUTION
Class(es)	3	**Packing group:**	III
Precautions:	Flammable liquid	**ERG Guide**	127

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002563, Embalming Products (Flammable) Group Standard 2020. All ingredients appear on the New Zealand Inventory of Chemicals NZIoC.

Specific Controls

Key workplace requirements are:	
SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 10000L is stored.
Certified handler	Required if > not required is handled or stored.
Tracking	This substance is required to be tracked if > not required is present.
Bunding & secondary containment	Required if > 10000L is stored.
Signage	Required if > 1000L is stored.
Location compliance certificate	Required if > 500 L (closed > 5 L), 1500 L (closed ≤ 5 L), 250 L (open) is stored.
Flammable zone	Must be established if > 100 L (closed containers), 25 L (decanting), 5 L (open occasionally), 1 L (open containers in continuous use) is stored.
Fire extinguisher	If > 500L present.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval HSR002563, Embalming Products (Flammable) Group Standard 2020 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
EC_{50}	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
GHS	Globally Harmonised System of Classification and Labelling of Chemicals, 7th revised edition, 2017, published by the United Nations.
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL	Lower Explosive Limit
LD_{50}	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC_{50}	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
NZIoC	New Zealand Inventory of Chemicals
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
STOT RE	System Target Organ Toxicity – Repeated Exposure
STOT SE	System Target Organ Toxicity – Single Exposure
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UEL	Upper Explosive Limit
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz, Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz.
Other References:	Suppliers SDS

Review

Date	Reason for review
February 2025	Not applicable - New SDS

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