

Material Safety Data Sheet

1. Identification of the substance/mixture and supplier

Product Name: **Silvaseal**

Recommended use: Sealer

Supplier: Uroxsys Ltd
 Street Address: 17 Trugood Drive, East Tamaki, Auckland
 Telephone Number: +64 9 2740808
 Facsimile: +64 9 2740500
 Emergency Telephone: After hours phone 0800 867666 (or 09 3034580), quote reference: Uroxsys Helpline
 ERMA Approval: HSR002663

2. Hazards identification

Classified as hazardous according to criteria in the HS (Minimum Degrees of Hazard) Regulations 2001
 Classified as Dangerous Goods by NZS 5433:1999 Transport of Dangerous Goods on Land.

Subclass 3.1 Category B (high hazard) - Flammable liquid
 Subclass 6.1 Category E - Substances which are acutely toxic
 Subclass 6.4 Category A - Substances that are irritating to the eye
 Subclass 8.2 Category C - Substances that are corrosive to dermal tissue
 Subclass 8.3 Category A - Substances that are corrosive to ocular tissue

Risk phrases: R11 Highly flammable
 R22 Harmful if swallowed
 R34 Causes burns

Safety Phrases S16 Keep away from sources of ignition - No smoking
 S24/25 Avoid contact with skin and eyes
 S28 After contact with skin, wash immediately with plenty of soap and water.
 S29 Do not empty into drains
 S36/37/39 Wear suitable protective clothing, gloves and eye/face protection
 S38 In case of insufficient ventilation, wear suitable respiratory equipment.

3. Composition/information on ingredients

Ethanol	64-17-5	>60%	R11
Gamma-aminopropyltriethoxysilane	919-30-2	10-30%	R22,R34
Butanediol diglycidyl ether, 1,4-	2425-79-8	<10%	R22,R36/37/38,R43
Dibutyl tin dilaurate	77-58-7	<1%	R36/37/38

4. First-aid measures

If poisoning occurs, contact a doctor or Poisons Information Centre Phone 0800 764 766.

Ingestion: Do NOT induce vomiting. Give a glass of water. Seek immediate medical assistance.

Inhalation: Remove to fresh air. If respiratory irritation, dizziness, nausea or unconsciousness occurs seek medical attention

Skin Contact: Remove contaminated clothing. Wash skin thoroughly with water, using soap if available.

Eye Contact: Flush eye with water for at least 15 minutes. Seek medical attention.

5. Fire-fighting measures

Specific Hazards: Highly Flammable liquid. On burning will emit toxic fumes including those of oxides of carbon.

Fire-fighting advice: On burning will emit toxic fumes. If safe to do so, remove containers from the path of fire. Keep containers cool with water spray. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

Suitable Extinguishing Media:

Foam, dry agent (carbon dioxide, dry chemical powder).

Hazchem Code: 2[Y]E

6. Accidental release measures

Emergency procedures:

If contamination of sewers or waterways has occurred advise local emergency services.

Methods for containment & clean up:

Shut off all possible sources of ignition. Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact and breathing in vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labeled containers or drums for disposal.

7. Handling and storage

Handling advice:

Avoid skin and eye contact and breathing in vapour. May form flammable vapour mixtures with air. All potential sources of ignition must be eliminated both in and near the work area. Do NOT smoke. Flameproof equipment is necessary in all areas where this chemical is being used. Nearby equipment must be earthed. Vapour may travel a considerable distance to a source of ignition and flash back.

Storage advice:

Store in a cool, dry, well ventilated place and out of direct sunlight. Store away from sources of heat or ignition. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for leaks.

8. Exposure controls/personal protection

Occupational Exposure Limits:

No value assigned for this specific material by the New Zealand Occupational Safety and Health Service (OSH). However, Workplace Exposure Standard(s) for constituent(s):
Ethanol: TWA 1000ppm, 1880 mg/m³

Engineering Control Measures:

Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Exposure Standards. Keep containers closed when not in use. Vapour heavier than air - prevent concentration in hollows or sumps. DO NOT enter confined spaces where vapour may have collected.

Personal Protective Equipment:

Wear overalls, chemical goggles and impervious gloves. Use with adequate ventilation. If inhalation risk exists wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. Physical and chemical properties

Physical state:	Liquid
Colour:	colourless
Specific Gravity:	1.0
Flash Point (°C):	13°C
Flammability Limits (%):	3.7-13.7
Boiling Point/Range (°C):	78°C

10. Stability and reactivity

Stability:	Stable under normal conditions
Conditions to avoid:	Avoid contact with foodstuffs. Avoid exposure to heat, sources of ignition and open flame.
Incompatible materials:	Avoid contact with strong acids, alkalies and water.

11. Toxicological information

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion:	Moderate systematic effect.
Eye contact:	Irritating and corrosive
Skin contact:	Irritating and corrosive
Inhalation:	Irritation of mucous membranes and respiratory tract with moderate systematic effect resulting in headache, drowsiness, lassitude, loss of appetite and inability to concentrate.

Toxicological Data:

No LD50 data available for the product. The toxicity of the product may be attributed to the components it contains.

Ethanol:

LD50 (Oral, rat) = 7060 mg/kg, LC50 (Inhalation, rat) = 20000 ppm/10H

gamma aminopropyltriethoxysilane:

Acute oral LD50 (female rat) 3500 mg/kg, Acute dermal LD50 (rabbit): 4000 mg/kg.

butanediol diglycidyl ether, 1,4-:

Acute oral LD50 (rat) 1410 mg/kg, Acute dermal LD50 (rabbit): >2150 mg/kg.

12. Ecotoxicological information

Avoid contaminating soil and waterways.

For gamma aminopropyltriethoxysilane LC50 (fish) 2208 mg/ml 96h

13. Disposal considerations

Refer to Waste Management Authority. Advise flammable nature. Dispose of material through a licensed waste contractor.

14. Transport information

Road and Rail Transport

Classified as Dangerous Goods by NZS 5433:1999 Transport of Dangerous Goods on Land.

UN No: 2924

Class-primary 3 Flammable Liquid

Packing Group: II

Proper Shipping Name: FLAMMABLE LIQUID, CORROSIVE, NOS (ETHANOL & GAMMA AMINOPROPYLTRIETHOXYSILANE)

Hazchem Code: 2[Y]E

Marine Transport

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

UN No: 2924

Class-primary: 3 Flammable Liquid

Packing Group: II

Proper Shipping Name: FLAMMABLE LIQUID, CORROSIVE, NOS (ETHANOL & GAMMA AMINOPROPYLTRIETHOXYSILANE)

Air Transport

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

UN No: 2924

Class-primary: 3 Flammable Liquid

Packing Group: II

Proper Shipping Name: FLAMMABLE LIQUID, CORROSIVE, NOS (ETHANOL & GAMMA AMINOPROPYLTRIETHOXYSILANE)

15. Regulatory information

Classification: This material is hazardous according to the criteria in the HS (Minimum Degrees of Hazard) Regulations 2001.

Subclass 3.1 Category B (high hazard) - Flammable liquid

Subclass 6.1 Category E - Substances which are acutely toxic

Subclass 6.3 Category A - Substances that are irritating to the skin

Subclass 6.4 Category A - Substances that are irritating to the eye

Subclass 8.2 Category C - Substances that are corrosive to dermal tissue

Subclass 8.3 Category A - Substances that are corrosive to ocular tissue

16. Other information

This MSDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Uroxsys Limited cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact Uroxsys Limited at the contact details on page 1.

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