

Safety Data Sheet



1. Identification

Product Name:	ESC Hardener Component
Other Names:	
Recommended use:	Hardener for ECS epoxy systems
Supplier:	Uroxsys Ltd
Street Address:	2 Stonedon Drive, East Tamaki, Auckland
Telephone Number:	+64 9 2740808 (8.00am to 5.00pm, Monday to Friday)
Emergency Telephone:	After hours phone CHEMCALL 0800 243622 (or +64 4 9179888)
National Poison Information Centre	0800 POISON (764766)
Date of issue	19 June 2023

2. Hazards identification

GHS classification of the substance/mixture:

Classified as Hazardous according to Hazardous Substances (Hazard Classification) Notice 2020

Classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433: 2020 Transport of Dangerous Goods.



Acute oral toxicity Category 4, Skin corrosion Category 1C, Serious eye damage Category 1, Specific target organ toxicity, single exposure Category 3, Skin sensitisation Category 1, Hazardous to the aquatic environment (chronic) Category 3

EPA Approval: HSR002658

Surface Coatings and Colourants (Corrosive) Group Standard 2020

6.1D(O), 8.2C, 8.3A, 6.5B, 6.9B, 9.1C

Signal Word:

DANGER

Hazard Statements:

H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

H317: May cause an allergic skin reaction

H318: Causes serious eye damage.

H335: May cause respiratory irritation

H412: Harmful to aquatic life with long lasting effects.

Precautionary Statements – Prevention:

P103: Read label before use.
P102: Keep out of reach of children.
P260: Do not breathe fume/gas/mist/vapours/spray.
P264: Wash hands thoroughly after handling.
P271: Use only outdoors or in a well ventilated area.
P272: Contaminated clothing should not be allowed out of the workplace.
P273: Avoid release to the environment.
P280: Wear protective gloves/clothing/eye protection/face protection.

Precautionary Statements – Response:

P101: If medical advice is needed, have product container or label at hand.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with plenty of soap and water.
P333+P313: If skin irritation occurs. Get medical advice/attention.
P304+P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER or doctor/physician.
P363: Wash contaminated clothing before reuse.
P391: Collect spillage.

Precautionary Statements – Storage:

P405: Store locked up
P403+P233: Store in well ventilated place. Keep container tightly closed.

Precautionary Statements – Disposal:

P501: Do not let product enter the environment. Do not dispose of in waterways or sewers. Unwanted product should be reacted with appropriate amount of resin brushed out on newspaper, allowed to cure and then disposed of via domestic waste collection. Empty containers should be left open in a well-ventilated area to cure. When cured, recycle the container via recycling programs. Disposal of empty paint containers via domestic recycling programs may differ between local authorities. Check with your local council first.

3. Composition/information on ingredients

Material	CAS No	%
Isophorone diamine	2855-13-2	>60%
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxirane, reaction products with 5-amino-1,3,3-trimethylcyclohexanemethanamine and 2-methyl-1,5-pentanediamine (Epoxy adduct)	1075254-00-0	20-40
2-methylpentamethylenediamine	15520-10-2	<5%
3-aminopropyltriethoxysilane	919-30-2	<3%
Cashew (Anacardium occidentale) Nutshell Extract, Decarboxylated, Distilled	8007-24-7	<2%

4. First-aid measures

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

Ingestion:	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.
Inhalation:	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin Contact:	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with plenty of soap and water. Call a POISON CENTER or doctor/physician if you feel unwell. Wash contaminated clothing before reuse.
Eye Contact:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

5. Fire-fighting measures

Hazards from combustion:	Corrosive substance
Fire-fighting advice:	On burning will emit toxic fumes including those of oxides of nitrogen and oxides of carbon. Keep containers cool with water spray. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing.
Suitable Extinguishing Media:	Foam, dry agent (carbon dioxide, dry chemical powder).
Hazchem Code	3X

6. Accidental release measures

Emergency procedures:	If contamination of sewers or waterways has occurred advise local emergency services.
Methods for containment & clean up:	Wear protective equipment to prevent skin & eye contact. Wipe up with rag or absorbent paper.
For large spills:	Wear protective equipment to prevent skin and eye contamination and inhalation of vapours. Contain - prevent runoff into drains and waterways. Use absorbent material (sand or earth). Collect and seal in properly labelled containers for disposal.

7. Handling and storage

Handling advice:	Avoid skin and eye contact and breathing in vapour. Keep out of reach of children.
Storage advice:	Store locked up. 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 Worksafe NZ.
Engineering Control Measures:	Ensure ventilation is adequate. Keep containers closed when not in use.
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:	Clear amber liquid
Solubility in water:	Negligible
Specific Gravity:	1.0
Flash Point (°C):	>100°C
Flammability Limits (%):	Not available
Boiling Point/Range (°C):	>200°C
Colour	Amber

10. Stability and reactivity

Stability:	Stable at normal temperatures and storage conditions.
Incompatible materials:	Incompatible with strong acids and oxidizing agents.

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:	May cause severe burning of the mouth and upper gastrointestinal tract with pain, bleeding, vomiting, diarrhoea and decreased blood pressure.
Eye contact:	Causes burns. May cause eye corrosion with corneal or conjunctival ulceration. High concentrations of vapours will cause irritation.
Skin contact:	Causes burns or ulceration. May cause allergic skin rashes.
Inhalation:	Inhalational overexposure may cause nose, throat, or lung irritation.
Long Term Effects:	Prolonged or repeated exposure may cause skin sensitization or other allergic response.
Toxicological Data:	No LD50 data available for the product. However, for constituent: Isophorone diamine: Oral LD50 (rat) 1030mg/kg, Inhalation LC50 (rat) >5.01 mg/l 4h 2-methylpentamethylenediamine: Dermal LD50 (rabbit) 1870 mg/kg, Inhalation LC50 (rat) 4.9 mg/l/1h, Oral LD50 (rat) 1170 mg/kg Cashew Nut Oil: Oral LD50 (rat) >2000 mg/kg, Dermal LD50 (rat) 2000 mg/kg 3-aminopropyltriethoxysilane: Oral LD50 (rat) 1570 mg/kg, Dermal LD50 (rabbit) 4290 mg/kg

12. Ecological information

Avoid contaminating waterways.

For constituent:

Isophorone diamine: Toxicity to fish: LC50 (96 h) 110 mg/l, *Leuciscus idus*, Aquatic invertebrates: EC50 (48 h) 23 mg/l, *Daphnia magna*

2-methylpentamethylenediamine: Algae EC50 >100mg/l/72h, Crustacea EC50 19.8 mg/48 h, Fish EC50 1825 mg/l

Cashew nut oil: Toxicity to fish LC50: 1000mg/l/96h, Algae EC50 1300 mg/l/72h

3-aminopropyltriethoxysilane: Toxicity to fish: LC50 331mg/l/48h. Algae EC50 603mg/l/72h

13. Disposal considerations

Refer to Waste Management Authority. Advise flammable nature. Dispose of material through a licensed waste contractor. Normally suitable for incineration by an approved agent.

Empty container: Do not contaminate storm water with product or product washing. Do not pour product down the drain. Unwanted product should be reacted with appropriate quantity of resin and be brushed out on newspaper, allowed to dry and then disposed of via domestic waste collection. Empty containers should be left open in a well-ventilated area to dry out. When dry, recycle the container via recycling programmes. Disposal of empty paint containers via domestic recycling programmes may differ between local authorities. Check with your local council first.

14. Transport information

Classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433: 2020 Transport of Dangerous Goods.



Road and Rail Transport

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

UN No: 2735

Class-primary 8 Corrosive

Packing Group: III

Proper Shipping Name: AMINES, LIQUID, CORROSIVE, NOS (Isophorone diamine)

Hazchem Code: 3X

Marine Transport

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

UN No: 2735

Class-primary: 8 Corrosive

Packing Group: III

Proper Shipping Name: AMINES, LIQUID, CORROSIVE, NOS (Isophorone diamine)

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: 2735

Class-primary: 8 Corrosive

Packing Group: III

Proper Shipping Name: AMINES, LIQUID, CORROSIVE, NOS (Isophorone diamine)

15. Regulatory information

EPA Approval: HSR002658

Surface Coatings and Colourants (Corrosive) Group Standard 2020

16. Other information

This SDS 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.

While Uroxsys Ltd believes that the information contained herein is based on data considered accurate, no warranty or representation is expressed or implied for which Uroxsys Ltd assumes legal responsibility.

This version replaces all previous versions.

END OF SDS