

Safety Data Sheet



1. Identification of the substance/mixture and supplier

Product Name: Duracoat ZK Hardener
Other Names:
Recommended use: Two pack polyurethane coating for the Marine industry.
Supplier: Uroxsys Ltd
Street Address: 2 Stonedon Drive, East Tamaki, Auckland
Telephone Number: +64 9 2740808 (8.00am to 5.00pm, Monday to Friday)
Facsimile: +64 9 2740500
Emergency Telephone: After hours phone 0800 867666 (or 09 3034580), quote reference:
Uroxsys Helpline
National Poison Information Centre 0800 POISON (764766)
Date of issue 8 May 2019

2. Hazards identification

DANGER



3.1C, 6.1E (Inhalation), 6.4A, 6.5A, 6.5B

EPA Approval: HSR002662.

Surface Coatings and Colourants (Flammable) Group Standard 2017

Hazard Statements:

H226: Flammable liquid and vapour.

H317: May cause an allergic skin reaction.

H319: Causes serious eye irritation.

H333: May be harmful if inhaled.

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Prevention Statements

P102: Keep out of reach of children.

P103: Read label before use.

P210: Keep away from sparks/open flames/hot surfaces. No smoking.

P233: Keep container tightly closed.

P240: Ground/bond container and receiving equipment.

P241: Use explosion-proof electrical/ventilating/lighting equipment.
P264: Wash hands thoroughly after handling.
P261: Avoid breathing fume/gas/mist/vapours/spray.
P280: Wear protective gloves/eye protection/face protection.
P272: Contaminated work clothing should not be allowed out of the workplace.
P285: In case of inadequate ventilation wear respiratory protection. (*see section 8*)

Response Statements

P101: If medical advice is needed, have product container or label at hand.
P303+P361+P353+P352: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water.
P304+P312+P341: IF INHALED: Call a POISON CENTER or doctor/physician. If breathing is difficult, 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.
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
P337+P313: If eye irritation persists: Get medical advice/attention.
P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P363: Wash contaminated clothing before reuse.
P370+P378: In case of fire: Use carbon dioxide, foam, dry powder for extinction

Storage Statements

P403+P235 Store in a well-ventilated place. Keep cool.

Disposal Statements

P501: Do not let product enter the environment. Do not dispose of in waterways or sewers. Do not contaminate storm water with product or product washing. Do not pour product down the drain. Unwanted product should 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.

3. Composition/information on ingredients

Material	CAS No	Content %
1-methoxy-2-propyl acetate	108-65-6	40 - 70
Hexamethylene diisocyanate homopolymer	28182-81-2	20 - 40
4-Toluenesulphonyl isocyanate	4083-64-1	< 1
Hexamethylene-1,6- diisocyanate	822-06-0	<0.07

4. First-aid measures

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

Ingestion: Immediately rinse mouth with water. If swallowed, do NOT induce vomiting. Seek immediate medical assistance. Begin artificial respiration if breathing has stopped. Use mouth to nose rather than mouth to mouth.

Inhalation:	IF INHALED: Call a POISON CENTER or doctor/physician. If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
Skin Contact:	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. 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. If eye irritation persists: Get medical advice/attention.
Notes to physician:	Dermatitis may result from prolonged or repeated exposure. Aspiration into the lungs may cause chemical pneumonitis. Causes central nervous system depression. Severe exposure may cause blurred vision, tremors, shallow and rapid breathing, delirium and unconsciousness.

5. Fire-fighting measures

Hazards from combustion:	On burning may emit toxic fumes including those of carbon oxides, nitrogen oxides, isocyanate vapours and hydrogen cyanide.
Fire-fighting advice:	Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion. Highly Flammable liquid. May form flammable vapour mixtures with air. Avoid all ignition sources. Heating can cause expansion or decomposition of the material, which can lead to the containers exploding. If safe to do so, remove containers from the path of fire. Keep containers cool with water spray.
Suitable Extinguishing Media:	Foam, dry agent (carbon dioxide, dry chemical powder).
Hazchem Code	3[Y]

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 in properly labelled containers.

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.
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Storage advice: Vapour may travel a considerable distance to a source of ignition and flash back.
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. However, NZ Workplace Exposure Standard(s) for constituent(s):
2 methoxy propyl acetate: TWA 274 mg/m³, STEL 822 mg/m³
Isocyanates, all (as-NCO): TWA 0.02 mg/m³; STEL 0.07 mg/m³, sen, NZ. These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
As published by the New Zealand Occupational Safety and Health Service (OSH).

Sen –

A substance that can ‘sensitise’ the respiratory system, inducing a state of hypersensitivity to it, so that on subsequent exposures, an allergic reaction can occur (which would not develop in non-sensitised individuals). It is uncommon to become sensitised to a compound after just a single reaction to it.

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: Avoid breathing the vapour or spray mist. Wear overalls, chemical goggles and impervious gloves. Use with adequate ventilation. If spraying or there is an inhalation risk exists wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Avoid breathing dust when sanding, use a dust mask. 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
Solubility in water:	Negligible
Specific Gravity:	1.01
Flash Point (°C):	45°C
Flammability Limits (%):	1.5-7.0
Boiling Point/Range (°C):	146°C
Colour	Pale yellow

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. Reacts with moisture
Incompatible materials:	Incompatible with oxidising 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:	Aspiration into the lungs may cause chemical pneumonitis which can be fatal.
Eye contact:	An eye irritant.
Skin contact:	Contact with skin may result in irritation.
Inhalation:	Harmful by inhalation. Narcotic at high vapour concentrations. May irritate the respiratory tract. May cause headache, dizziness, nausea and narcosis.
Long term Effects:	For isocyanate polymer, over exposure, especially during spraying operations without the necessary precautions, entails the risk of concentration-dependent irritating effects on eyes, nose, throat and respiratory tract. Delayed appearance of the complaints and development of hyper-sensitivity (difficult breathing, coughing, and asthma) are possible. Hypersensitive persons may suffer from these effects even at low isocyanate concentrations. In case of longer contact with skin, tanning and irritating effects are possible. Due to presence of solvents, prolonged or repeated overexposure to vapour may result in damage to nasal tissues and the upper respiratory tract.
Toxicological Data:	No LD50 data available for the product. 1-methoxy-2-propyl acetate: Oral LD50 (rat) 8532mg/kg, Dermal LD50 (rabbit) 5000 mg/kg Hexamethylene diisocyanate Homopolymer: Inhalation LC50 (rat) 18500mg/m ³ /1H (18500 mg/kg) Hexamethylene diisocyanate: Inhalation dust/mist: LC50 30 mg/l, Oral LD50 (mouse) 350mg/kg, Dermal LD50 (rabbit) 593 mg/kg

12. Eco toxicological information

Avoid contaminating waterways.
1-methoxy-2-propyl acetate: Acute Toxicity – Fish: LC50 (Oncorhynchus mykiss): 134 mg/l/96h
Daphnia EC50 (Daphnia magna): 408 mg/l/48h, Algae ErC50 (Pseudokirchneriella subcapitata): >1000 mg/l/96h

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.

Do not let product enter the environment. Do not dispose of in waterways or sewers. Do not contaminate storm water with product or product washing. Do not pour product down the drain. Unwanted product should 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



Road and Rail Transport

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

UN No: 1263

Class-primary 3 Flammable Liquid

Packing Group: III

Proper Shipping Name: PAINT RELATED MATERIAL

Hazchem Code: 3[Y]

Marine Transport

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

UN No: 1263

Class-primary: 3 Flammable Liquid

Packing Group: III

Proper Shipping Name: PAINT RELATED MATERIAL

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: 1263

Class-primary: 3 Flammable Liquid

Packing Group: III

Proper Shipping Name: PAINT RELATED MATERIAL

15. Regulatory information

EPA Approval: HSR002662

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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