

Material Safety Data Sheet

1. Identification of the substance/mixture and supplier

Product Name: **Duracoat AUSF and AUGF Hardener Component**

Recommended use: Two pack polyurethane coating for use in food processing, baking, beverage, dairy and meat industries.

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: HSR002662

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 C (medium 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 6.5 Category A - Substances that are respiratory sensitisers

Risk phrases: R10 Flammable
 R65 Harmful: May cause lung damage if swallowed

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
 S38 In case of insufficient ventilation, wear suitable respiratory equipment.

3. Composition/information on hazardous ingredients

Isocyanate polymer	28182-81-2	30-60%	-
Aromatic hydrocarbon solvent	64742-95-6	10-30%	R65
1-methoxy-2-propyl acetate	108-65-6	10-30%	R10,R36
Hexamethylene-1,6- diisocyanate	822-06-0	<0.04%	R23,R36/37/38,R42/43

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: Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patient finds breathing difficult and develops a bluish discolouration of the skin (which suggests a lack of oxygen in the blood - cyanosis), ensure airways are clear of any obstruction and have a qualified person give

oxygen through a face mask. Apply artificial respiration if patient is not breathing. Get to a hospital or doctor quickly.

Skin Contact: If skin contact occurs, immediately remove contaminated clothing and wash skin thoroughly. If irritation occurs seek medical advice.

Eye Contact: If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

Notes to physician:

May cause central nervous system depression.

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. 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 labeled 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. 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):

Isocyanates, all (as-NCO): WES-TWA 0.02 mg/m³; WES-STEL 0.07 mg/m³, sen, NZ. As published by the New Zealand Occupational Safety and Health Service (OSH).

Aromatic hydrocarbon solvent: TWA 480 mg/m³

WES - TWA (Workplace Exposure Standard - Time Weighted Average) - The eight-hour, time-weighted average exposure standard is designed to protect the worker from the effects of long-term exposure.
WES - STEL (Workplace Exposure Standard - Short Term Exposure Limits) - The 15 minute average exposure standard. Applies to any 15 minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEEL is not an alternative to the WES-TWA; both short-term and eight hour, time-weighted average exposures should be determined.

'Sen' Notice – sensitiser. The substance can cause a specific immune response in some people. An affected individual may subsequently react to exposure to minute levels of that substance.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

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
Colour:	Pale yellow
Solubility:	Negligible
Specific Gravity:	0.99
Flash Point (°C):	47°C
Flammability Limits (%):	0.8-6.0
Boiling Point/Range (°C):	143

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:	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: Swallowing can result in nausea, vomiting and central nervous system depression. If the victim is showing signs of central system depression (like those of drunkenness) there is greater likelihood of the patient breathing in vomit and causing damage to the lungs.

Eye contact: An eye irritant.

Skin contact: Contact with skin may result in irritation. Will have a degreasing action on the skin. Repeated or prolonged skin contact may lead to irritant contact dermatitis.

Inhalation: Material may be irritant to the mucous membranes of the respiratory tract (airways). May cause respiratory sensitisation in sensitive individuals, producing asthma-like symptoms. Breathing in vapour can result in headaches, dizziness and possible nausea. Breathing in high concentrations can produce central nervous system depression, which can lead to loss of co-ordination, impaired judgement and if exposure is prolonged, unconsciousness.

Long Term Effects:

No information available for the product. For the solvent evidence indicates that repeated or prolonged exposure to this chemical could result in central nervous system disorders.

Toxicological Data:

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

Additive effects may occur with mixtures of solvents. Similar effects can occur where the consumption of alcohol is also involved. However, for constituent Aromatic hydrocarbon solvent:

Oral LD50 (rat): >2000 mg/kg

Dermal LD50 (rabbit): >2000 mg/kg

Inhalation LC50 (rat): 1320 ppm/6 Hrs/90 days

12. Ecotoxicological information

Avoid contaminating waterways.

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.

14. Transport information

Road and Rail Transport

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

UN No: 1263

Class-primary 3 Flammable Liquid

Packing Group: III

Proper Shipping Name: PAINT

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: 3.3 Flammable Liquid

Packing Group: III

Proper Shipping Name: PAINT

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

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 C (medium 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 6.5 Category A - Substances that are respiratory sensitisers

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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