

Material Safety Data Sheet

1. Identification of the substance/mixture and supplier

Product Name: **Duracoat UV Tec**

Recommended use: UV absorbant glass coating

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 B (high hazard) - Flammable liquid
 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 6.5 Category A - Substances that are respiratory sensitisers
 Subclass 6.5 Category B - Substances that are contact sensitisers

Risk phrases: R11 Highly Flammable
 R36 Irritating to eyes
 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 ingredients

Toluene	108-88-3	30-60%	R11,R20
Xylene	1330-20-7	10-30%	R10,R20/21,R38
Aliphatic polyisocyanate prepolymer		10-30%	-
Propylene glycol monomethyl ether acetate	108-65-6	<10%	R10, R36
Hexamethylene-1,6-diisocyanate	822-06-0	<0.1%	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: Do NOT induce vomiting. Give nothing by mouth. Seek immediate medical assistance.

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 with water using soap if available. If irritation persists seek medical assistance.

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

Notes to physician:

Dermatitis may result from prolonged or repeated exposure. Aspiration into 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. 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]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 in properly labeled containers and seal once product has hardened.

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):

Toluene_(skin) TLV/TWA 50ppm, 188 mg/m³

Xylene: TLV/TWA 50ppm, 217 mg/m³
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).

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-STEL 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:

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:	Pale amber
Solubility:	Slightly
Specific Gravity:	0.94
Flash Point (°C):	4°C
Flammability Limits (%):	1.2-8.0
Boiling Point/Range (°C):	110

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: Swallowing can result in nausea, vomiting and central nervous system depression. Aspiration into lungs may cause chemical pneumonitis which can be fatal.

Eye contact: An eye irritant.

Skin contact: Irritant. Harmful in contact with skin.

Inhalation: Harmful by inhalation. Narcotic at high vapour concentrations. May irritate the respiratory tract. May cause headache, dizziness, nausea and narcosis.

Long Term Effects:

Repeated exposure may affect the liver, kidney and central nervous system. May cause slight foetotoxicity at doses which are maternally toxic. Prolonged or repeated contact may cause defatting of the skin which can lead to dermatitis. 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 hypersensitivity (difficult breathing, coughing, 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.

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 constituents xylene and toluene:

However, for constituents

xylene: Oral LD50 (rat): 4300 mg/kg, Dermal LD50 (rat): >2000 mg/kg, Inhalation LC50 (rat): > 5mg/l

toluene: Oral LD50 (rat): 5000 mg/kg, Dermal LD50 (rat) 12124 mg/kg, Inhalation LC50 (mouse) 4hr 5320 mg/l

12. Ecotoxicological information

Avoid contaminating soil and waterways. If product enters soil, it will be mobile and may contaminate groundwater. Expected to be toxic to aquatic organisms and organisms in sewage treatment plants.

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 containers:

Do not contaminate storm water with product or product washing. Do not pour product down the drain. Unwanted product should 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 5433:1999 Transport of Dangerous Goods on Land.

UN No: 1999

Class-primary 3 Flammable Liquid

Packing Group: II

Proper Shipping Name: PAINT RELATED MATERIAL

Hazchem Code: 3[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: 1263

Class-primary: 3 Flammable Liquid

Packing Group: II

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: II

Proper Shipping Name: PAINT RELATED MATERIAL

15. Regulatory information

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

ERMA Approval: HSR002662

Group Standard: Surface Coatings and Colourants (Flammable) Group Standard

Subclass 3.1 Category B (high hazard) - Flammable liquid

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

Subclass 6.5 Category A - Substances that are respiratory sensitisers

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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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