



Material Safety Data Sheet

1. Identification of the substance/mixture and supplier

Product Name: **Bondurox (Low VOC)**

Recommended use: Adhesive

Supplier: Uroxsys Ltd

Street Address: 2 Stonedon 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: HSR002670

2. Hazards identification

Not classified as Dangerous Goods by NZS 5433:1999 Transport of Dangerous Goods on Land.
Classified as hazardous according to criteria in the HS (Minimum Degrees of Hazard) Regulations 2001

Subclass 6.3 Category B - Substances that are mildly irritating to the skin

Subclass 6.4 Category A - Substances that are irritating to eye

Subclass 6.9 Category A – (Inhalation) Substances that are toxic to human target organs or systems

Risk phrases: R36/37/38 Irritating to eyes, respiratory system and skin
R42/43 May cause sensitisation by inhalation and skin contact

Safety Phrases S24/25 Avoid contact with skin and eyes
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/38 Wear suitable protective clothing, gloves and eye/face protection.
S38 In case of insufficient ventilation, wear suitable respiratory equipment.

3. Composition/information on ingredients

Inert filler		30-60%	
Polymeric MDI copolymer	53862-89-8	10-30%	
4,4-diphenylmethane diisocyanate (MDI)	101-68-8	<10%	R20,R36/37/38,R42/43
Diphenyl methane diisocyanate	9016-87-9	<10%	R20,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. Give plenty of water to drink. If vomiting occurs give further water. Seek 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: Wipe material from skin with cloth or absorbent paper. Wash contaminated skin with plenty of soap and water. Remove contaminated clothing and wash before re-use. If swelling ,

redness, blistering, or irritation occurs seek medical advice. Traces of cured material (after water contact) is not considered hazardous. Do NOT remove with solvent. Allow to peel off naturally or hasten by soaking in tepid to warm water.

Eye Contact: Immediately irrigate with copious quantities of water for at least 15 minutes. Eyelids to be held open. Remove clothing is contaminated and wash skin. Seek immediate medical assistance.

Notes to physician:
Treat symptomatically. Effects may be delayed.

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.

Suitable Extinguishing Media: Water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder)

6. Accidental release measures

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

Methods for containment & clean up:

For small spills: Quickly wipe up material before it cures, with cloth or absorbant paper avoiding skin contact. Uncured material will dissolve in acetone or acetone based nail polish remover. Cured material can only be removed by abrasion.

For large spills: Wear protective equipment to prevent skin and eye contamination and inhalation of vapours. Scrape up material before it cures. Collect and seal in properly labeled containers for disposal. Wash area down with excess water. Cured material can only be removed by abrasion.

7. Handling and storage

Handling advice: Avoid skin and eye contact.

Storage advice: Store in a cool place and out of direct sunlight. Store away from acids, alcohols, oxidizing agents, moisture and sources of heat or ignition. Keep dry, reacts with water; may lead to drum rupture. Keep containers closed at all times, 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): TWA 0.02 mg/m³; STEL 0.07 mg/m³, sen, NZ

As published by the New Zealand Occupational Safety and Health Service (OSH)

TWA (Time Weighted Average) - The eight-hour, time-weighted average exposure standard is designed to protect the worker from the effects of long-term exposure.

STEL (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. Use in well ventilated area. Keep containers closed when not in use.

Personal Protective Equipment:

Avoid skin and eye contact and inhalation of vapour or spray. Wear overalls, safety boots, full-face visor and general purpose gloves (PVC). 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:	Brown thixotropic paste
Solubility:	Insoluble in water.
Specific Gravity:	1.45
Flash Point (°C):	>100°C (closed cup)
Flammability Limits (%):	Not available
Boiling Point/Range (°C):	242

10. Stability and reactivity

Stability:	Stable under normal condirions
Conditions to avoid:	Avoid contact with foodstuffs.
Incompatible materials:	Reacts with alcohols, acids, oxidizing agents and moisture.

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 and abdominal pain.

Eye contact: An eye irritant.

Skin contact: Contact with skin may result in irritation. May cause skin sensitization in sensitive individuals. Repeated or prolonged skin contact may lead to allergic contact dermatitis. Animal studies have shown that respiratory sensitisation can be induced by skin contact with known respiratory sensitisers including diisocyanates.

Inhalation: Repeated inhalation of vapour or spray mists at levels above the occupational exposure standard could cause respiratory sensitization. Symptoms may include irritation of the eyes, nose, throat and lungs, possibly with dryness of the throat, tightness of the chest and difficulty breathing. Onset of respiratory symptoms may be delayed for several hours after exposure. A hyper-reactive response may develop to even minimal concentrations of MDI in sensitized individuals.

Long Term Effects:

There are reports that chronic exposure to isocyanates by inhalation, may result in a permanent decrease in lung function.

Toxicological Data:

No LD50 data available for the product. The toxicity of the product may be attributed to the solvents it contains. However, for constituent MDI products:

Oral LD50 (rat): >15000 mg/kg, Inhalation LC50 (rat): 490 mg/m³/4h (vapour 4 hrs)

12. Ecotoxicological information

Avoid contaminating waterways. Material is practically non-toxic to aquatic organisms on an acute basis (LC50 greater than 100mg/l in most sensitive species)

13. Disposal considerations

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

Empty foil or buckets should be exposed to air and left to cure. When cured, dispose of in rubbish as inert waste.

14. Transport information

Not classified as Dangerous Goods by NZS 5433:1999 Transport of Dangerous Goods on Land.

Marine Transport

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Air Transport

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

15. Regulatory information

Classified as hazardous according to criteria in the HS (Minimum Degrees of Hazard) Regulations 2001

ERMA Approval: HSR002670

Group Standard: Surface Coatings and Colourants (Subsidiary Hazard) Group Standard

Subclass 6.3 Category B - Substances that are mildly irritating to the skin

Subclass 6.4 Category A - Substances that are irritating to eye

Subclass 6.9 Category A – (Inhalation) Substances that are toxic to human target organs or systems

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.

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.