

MATERIAL SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION OF CHEMICAL

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Address: 74 Annie Street
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Product Name: AQUAGARD M NON-SLIP TOP COAT HARDENER
Description: Polyurethane pre-polymer part of a two part aliphatic polyurethane coating.
Use: Hardener component of UV resistant, trafficable non-slip surfacing.

SECTION 2 – HAZARDS IDENTIFICATION

This product is classified as: Hazardous according to criteria of SafeWork Australia

U.N. Number: 1139	Dangerous Goods Class: 3	Hazchem Code: 3[Y]
Risk: Flammable	Poisons Schedule: 6	Packing Group: III
Risk Phases:	R10	Flammable
	R20/21/22	Harmful by inhalation, contact with skin and if swallowed
	R36/37/38	Irritating to eyes, skin and respiratory system
Safety Phases:	S1/2	Keep locked and out of reach of children
	S23	Do not breathe vapour or spray
	S26	In case of contact with eyes rinse immediately with plenty of water and contact a doctor or Poisons Information Centre
	S36/37	Wear suitable protective clothing and gloves
	S45	In case of accident or you feel unwell, seek medical advice immediately (show the label whenever possible)

SECTION 3 – COMPOSITION/ INFORMATION ON INGREDIENTS

Hazardous Ingredients:

Chemical Ingredient:	C.A.S. No:	Concentration
Polyurethane Prepolymer		<45%
Xylene	1330-20-7	<45%
Non-hazardous ingredients		to 100%

SECTION 4 – FIRST AID MEASURES

Inhaled: As long as the product is used in open areas, or well ventilated confined spaces, inhalation risks are not expected. If there is an obvious odour in the working area increase ventilation. Ensure airborne concentrations remain below exposure limits; refer Section 8 of this Material Safety Data Sheet. Air circulation equipment (fans) maybe required to maintain satisfactory ventilation in confined spaces. If it's difficult to increase ventilation, wear appropriate respiratory protection. If you feel uncomfortable from solvent odours, move to fresh air.

Acute inhalation may cause irritation to respiratory tract. Symptoms may include coughing, shortness of breath, burning sensation in chest, headache, nausea, weakness, restlessness and incoordination, drowsiness and coma.

Skin Contact: Causes irritation to skin. Symptoms include redness, itching and pain. May cause dermatitis. Wash contact area with soap and water. A cotton pad soaked with castor oil can be used to remove product from skin.

Eye Contact: May cause severe irritation and discomfort. Immediately flush eyes with water for at least 15 minutes (longer if irritation persists), hold eyelids open. Seek medical assistance immediately.

Swallowed: Causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhoea. A potential aspiration hazard if swallowed. May cause damage to lungs. System may parallel inhalation exposure. Do not induce vomiting. If vomiting does occur, keep head below hip to prevent aspiration. Seek immediate medical assistance.

SECTION 5- FIRE FIGHTING MEASURES

Flammability: Flammable liquid.

Flash Point: 48.5°C PMCC (ASTM D-93)

Flammability Limits: Not determined

Hazchem Code: 3[Y]

First Aid Facilities: Provide eye baths and safety showers.

Clear fire area of all on-emergency personnel. Eliminate all ignition sources. Ensure ventilation is sufficient to prevent a build-up of vapour. Allow trained personnel to attend a fire in progress, providing fire fighters with this Material Safety Data Sheet. Fire fighter must wear full protective equipment including self-contained breathing apparatus. Prevent extinguishing media from escaping to drains and waterways.

Specific Hazards:

The vapour is heavier than air and may spread along the ground causing distant ignition (however it is considered unlikely vapour concentration would reach high enough levels). Vapours will float and can be reignited on surface water. Toxic fumes including carbon monoxide may be evolved.

Extinguishing Media:

Extinguish with foam, water spray or fog. Do not use water in a jet. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Emergency Procedures: Prevent fluid from escaping to drains and waterways. Contain leaking packaging in a containment drum. Prevent vapours from building up in confined areas. Ensure drain valves are closed at all times. Clean-up and report spills immediately.

Methods & Materials For Containment & Clean Up: Eliminate all ignition sources. Increase ventilation if possible. Contain spill using sand, earth, vermiculite or other suitable absorbent. Place contaminated absorbent in drums for disposal. Personnel involved in clean-up must use recommended protective equipment. Dispose of in accordance with Local Regulations.

SECTION 7 – HANDLING & STORAGE

Handling: This material is combustible. Eliminate all ignition sources. Ensure ventilation is sufficient to prevent a build-up of vapour.

Storage: Store in a cool, dry place. Product will absorb moisture from the atmosphere. Keep containers closed at all times. Avoid storage of partially used pails. Contamination of drummed product with water may lead to drum rupture.

Container Advice: Containers, even those that have been emptied, can contain flammable or explosive vapours. Do not cut, drill, weld or perform similar operations on or near containers.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

National Exposure Standards:

	<u>TWA</u>	<u>STEL</u>
Isocyanate (as NCO)	0.02mg/m ³ sensitiser	0.07mg/m ³
Xylene, mixture of isomers	350 mg/m ³	655 mg/m ³

TWA – (Time Weighted Average) – Maximum average airborne concentration experienced over an eight hour working day, for a five day working week over an entire working life.

STEL – (Short Term Exposure Limit) – Average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight hour working day.

Exposure Limits: Not established for product or individual components.

Ventilation: Provide general and/or local exhaust ventilation, depending on type of operations, to control airborne exposures.

Biological Limit Values: No biological limit allocated

Engineering Controls: Use only in a well ventilated area. Ventilation must be sufficient to maintain exposure below recommended exposure standards above.

Personal Protective Equipment (PPE):

Respiratory: If inhalation risk exists, wear a respirator fitted with cartridge suitable for organic vapours. This must comply with AS/NZS 1715:1994 STANDARD. Wash hands before smoking, eating, drinking and going to the toilet.

Skin/Body: Wear impervious protective clothing, including boots, gloves, coveralls, and safety goggles. Ensure protective equipment is decontaminated before re-use.

Eyes/Face: Chemically resistant safety glasses with side shields. If there is a risk of splashing wear a full face shield. Ensure eye wash facilities are available and all workers are aware of location.

Selection and the use of personal protective equipment should be in accordance with the recommendations in one or more of the relevant Australian Standards, including:

AS 1336:	Recommended practices for eye protection in the industrial environment
AS/NZS 1337:	Eye protectors for industrial application
AS/NZS 1715:	Selection, use and maintenance of respiratory protective devices
AS 2161:	Industrial safety gloves and mittens (excluding electrical and medical gloves)
AS/NZS 2210:	Occupational protective footwear
AS 2919:	Industrial clothing

SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

Appearance:	Coloured liquid	Odour:	Aromatic Hydrocarbon
pH:	Not applicable	Specific Gravity:	1.1
Vapour Pressure (Xylene):	1.2kPa @ 20°C	Vapour Density (Xylene):	3.7 (Air = 1)
Boiling Point (Xylene):	136-145°C	Freezing Point (Xylene)	> - 48°C
Solubility (water):	Immiscible	Flash Point, cc:	26°C
Viscosity:	15 - 25 mPa.s		

SECTION 10 – STABILITY & REACTIVITY

Chemical Stability: Stable under normal conditions of use. Avoid storage conditions which heat the product above the flash point. Reacts violently with strong oxidising agents.

Conditions To Avoid: Avoid heat, sparks, open flames and other ignition sources. Prevent vapour accumulation.

Incompatible Materials: Strong alkali, acids, oxidising agents, amines and water.

Hazardous Decomposition products: Thermal decomposition may occur at temperatures above flash point. A complex mixture of airborne solids, liquids and gases, including carbon monoxide, carbon dioxide and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

SECTION 11 – TOXICOLOGICAL INFORMATION

Specific data for this product is unavailable; the following information is based on tests with xylene, the main solvent in this product.

Acute Oral Toxicity: Low toxicity – LD50 > 2000mg/kg, Rat aspiration into lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

Acute Dermal Toxicity: Low toxicity – LD50 > 2000 mg/kg. Classified as harmful under EC criteria, Rabbit.

Acute Inhalation Toxicity: Low toxicity – LD50 > 20 mg/1 4, hours, Rat Classified as harmful under EC criteria. High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.

Skin Irritation: Irritating to skin. Frequent, prolonged contact may defect and dry the skin, leading to discomfort and dermatitis.

Eye Irritation: Inhalation vapours may cause irritation to the respiratory system.

Sensitisation: Not expected to be a skin sensitizer.

Repeated Dose Toxicity:

- Liver – can cause liver damage
- Kidney - can cause kidney damage
- Central nervous system – repeated exposure affects the nervous system

Mutagenicity: Not mutagenic

Carcinogenicity: Not carcinogenic in animal studies.

Reproductive and Developmental Toxicity: Does not impair fertility. Causes foetotoxicity in animals at doses which are maternally toxic.

SECTION 12 – ECOLOGICAL INFORMATION

Specific data for this product is not available; the following information is based on tests with xylene, the main solvent in this product.

Aquatic Toxicity:

Fish Toxicity (rainbow trout, goldfish, bluegill)

LC50 (96hr): Toxic 1-10mg/1

Daphnia Magna EC50 (24hr)

No data available

Daphnia Magna EC50 (48hr)

Long term adverse effects to aquatic organisms are possible if continuous exposure maintained.

Blue-green algae (Toxicity threshold 7-8 days)

No data available

Green algae (Toxicity threshold 7-8 days)

Toxic: 1-10mg/1

Persistence/degradability: This product can degrade rapidly in air. This substance is expected to be removed in wastewater treatment. Based on data for similar components or estimated data, this product is expected to biodegrade rapidly and be 'readily' biodegradable according to OECD guidelines.

Mobility: The product is highly volatile and will rapidly evaporate to the air if released into the water.

SECTION 13 – DISPOSAL CONSIDERATIONS

Material Disposal: Part containers can be gelled by mixing in a small amount of water, approximately 1-2%. Be careful not to add too much, as the product will foam and overflow. If setting the material with water, provide for the foaming by placing in a bunged/sealed area to prevent the foam from escaping to surrounding environment. Care should be taken to ensure compliance with national and local authorities.

Container Disposal: Drain container thoroughly of uncured material or mix a little water into uncured material, as described above. After draining allow all remaining material to cure in a safe place away from sparks or fire. Ensure empty packaging is allowed to dry.

SECTION 14 – TRANSPORT INFORMATION

U.N. Number: 1139

Dangerous Goods Class: 3

Packaging Group: III

Hazchem: 3[Y]

SECTION 15 – REGULATORY INFORMATION

Country/Region
Status

Australia
Listed

Inventory
Poisons Schedule

AICS
n/a

SECTION 16 – OTHER INFORMATION

ACRONYMS

AICS: Australian Inventory of Chemical Substances

CAS Number: Chemical Abstracts Service Registry Number

Hazchem Code: Emergency action code that provides information to emergency services

IARC: International Agency for Research on Cancer

NOHSC: National Occupational Health and Safety Council

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