

MATERIAL SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION OF CHEMICAL

ABN: Sealex Industries
Phone: 1300 555 955
Fax: 1300 855 598
Address: 5 Balook Dr Beresfield NSW 2322

Product Name: PU101 Topcoat Part A

Description: Polyol resin blend.

Use: Resin component of UV resistant non-slip surface finish.

SECTION 2 – HAZARDS IDENTIFICATION

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

U.N. Number: 1866 **Dangerous Goods Class:** 3 **Hazchem Code:** 3[Y]
Poisons Schedule: 6 **Packaging Group:** N/A

Risk Phrases: **R10** Flammable
 R20/21 Harmful by inhalation and in contact with skin
 R38 Irritating to skin
Safety Phrases: **S2** Keep out of reach of children
 S25 Avoid contact with eyes

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients:

Chemical Entity:	C.A.S. No:	Concentration
Acrylic Urethane Polyol		20-40%
Xylene	1330-20-7	<50%
Non-hazardous ingredients		to 100%

SECTION 4 – FIRST AID MEASURES

Inhaled: Keep victim calm and remove to fresh air if safe to do so. Obtain medical treatment immediately.

Skin Contact: If skin contact occurs, remove contaminated clothing and wash skin thoroughly with water and follow by washing with soap if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for treatment.

Eye Contact: Hold eyes open and wash thoroughly with flowing water for 15 minutes. Seek prompt medical attention by a doctor.

Swallowed: Do **NOT** induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Call doctor and/or transport to hospital promptly.

First Aid Facilities: Provide potable water to rinse eyes or skin, eye baths and safety showers.

SECTION 5 – FIRE FIGHTING MEASURES

Flammability: Flammable liquid. Vapour may form explosive mixtures with air. Avoid heat and all ignition sources.

Flash Point: N/A

Hazchem Code: 3[Y]

Suitable Extinguishing Media: Extinguish with foam, water spray, fog, dry chemical or carbon dioxide. Do not use water in a jet.

Hazards from combustion products: Carbon monoxide may be evolved if incomplete combustion occurs. Will float and can be reignited on surface water. Vapour is heavier than air, can spread along ground and distant ignition is possible.

Precautions for Fire Fighters and Special Protective Equipment (PPE): Wear full protective clothing and self-contained breathing apparatus.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spills & Disposal: Avoid contact with spilled or released material. Shut off leaks, if possible without personal risks. Remove all sources of ignition in the surrounding area. Use appropriate containment to avoid environmental contamination. Prevent from spreading and entering waterways using sand, earth or other appropriate barriers. Take precautionary measure against static discharge. Ensure electrical continuity by bonding and earthing all equipment.

Methods & Materials for Containment & Clean Up Procedures: For small spills (<1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Allow any residues to evaporate or use an appropriate absorbent material and dispose of safely.

For larger spills (>1 drum), transfer by means such as a vacuum truck to a salvage tank for recovery or disposal. Do not flush residues with water. Retain as contaminated waste. Allow any residues to evaporate or use an appropriate absorbent material and dispose of safely.

SECTION 7 – HANDLING & STORAGE

Handling: Avoid breathing of or contact with material. Use in well ventilated areas. Wash thoroughly after handling. Avoid contact with skin and eyes and clothing. Handle open containers in well ventilated area.

Storage: Store in a cool, well ventilated place away from heat and ignition sources. Keep partially used product containers closed. Store away from strong oxidants, foodstuffs, clothing and keep out of reach of children.

Dispensing: Electrostatic charges may be generated during transfer. Electrostatic discharge may cause fire. Ensure electrical continuity by earthing all equipment.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standards: Worksafe Australia has set an exposure standard 530mg/m³ (80ppm) TWA (8hr), 655mg/m³ (150ppm) STEL.

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

Personal Protective Equipment (PPE):

Respiratory: If work practises do not maintain airborne level below the exposure standard, use appropriate respiratory protection equipment. When using respirators, select an appropriate combination of mask and filter and select a filter for organic gases and vapours (boiling point >65°C). Respirators should comply with AS1716 or an equivalent approved by a state/territory authority.

Hands: Use solvent resistant gloves. Nitrile for longer term protection or PVC and neoprene for incidental splashes.

Eyes: Wear chemical goggles. Eye wash facilities should be located in the immediate work area.

Protective Clothing: Use chemical resistant glove/gauntlets, boots and apron.

Engineering Controls: Ensure that adequate ventilation is provided. Maintain air concentration below recommended exposure standards. Avoid generating and inhaling mists. Keep containers closed when not in use.

SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

Appearance:	White liquid	Solubility in water:	Insoluble
Odour:	Mild Aromatic	Specific Gravity:	1.1 (@25°C)
PH:	N/A	Flashpoint:	N/A
Flammability Limits (%):	1-7.1	Boiling Point:	N/A
Vapour Density:	Heavier than air		

SECTION 10 – STABILITY & REACTIVITY

Chemical Stability: Stable under normal conditions of use.

Condition to Avoid: Avoid heat, sparks, open flames and other ignition sources.

Incompatible Materials: Strong oxidising agents.

Hazardous Decomposition Products: Thermal decomposition is highly dependant on conditions. A complex mixture of airborne solids, liquids, 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

Inhaled: Low toxicity – LC50>20mg/14 hours, Rat. Inhalation of vapours or mists may cause irritation to the respiratory system. High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.

Skin Contact: Irritating to skin.

Eye Contact: Irritating to eyes.

Swallowed: Expected to be of low toxicity: LD50>2000mg/kg, Rat. Aspiration into lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

Chronic: Central nervous system: repeated exposure affects the nervous system.

Liver: can cause liver damage.

Kidney: can cause kidney damage.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity:

Fish : Toxic 1<LC/EC/IC50 <= 10mg/1

Aquatic Invertebrates : Toxic 1<LC/EC/IC50 <= 10mg/1

Algae : Toxic 1<LC/EC/IC50 <= 10mg/1

Mobility: Floats on water, highly mobile and may contaminate groundwater.

Persistence/ Degradability: Readily biodegradable. Oxidises by photo-chemical reactions in air.

Bioaccumulation: Does not bioaccumulate significantly.

SECTION 13 – DISPOSAL CONSIDERATIONS

Disposal: Ensure waste disposal conforms to local waste disposal regulations.

SECTION 14 – TRANSPORT INFORMATION

U.N. Number: None

Dangerous Goods Class: 3

Packaging Group: III

Special Precautions: None

Proper Shipping Name: N/A

Subsidiary Risk: None allocated

SECTION 15 – REGULATORY INFORMATION

Poisons Schedule: 6

AICS: None Listed

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

UN Number: United Nations Number

CONTACT: Sealex Industries 1300 555 955

Date of issue: April 21, 2010

IMPORTANT NOTE:

Data quoted is typical for the product, but does not constitute a specification, and is based on the most accurate information available at the time of writing. All information contained herein is given in good faith, but is subject to change without notice.

MATERIAL SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION OF CHEMICAL

ABN: Sealex Industries
Phone: 1300 555 955
Fax: 1300 855 598
Address: 5 Balook Dr Beresfield NSW 2322

Product Name: PU101 Topcoat Part B

Description: Polyurethane prepolymer 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: Non Hazardous according to criteria of Worksafe Australia

U.N. Number: None **Dangerous Goods Class:** None **Hazchem Code:** Not applicable
Risk: Irritant to eyes and skin **Poisons Schedule:** 6

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
	R42/43	May cause sensitization by inhalation and skin contact
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		75-85%
Di-octyl Phthalate	117-81-7	<10%
Xylene	1330-20-7	<10%
Calcium Carbonate	471-34-1	<30%
Chemical Additive	Proprietary	<5%

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: The material is combustible.

Flash Point: Not determined

Flammability Limits: Not applicable

Hazchem Code: Not applicable

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	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/full face shield. 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 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	Vapour Density:	Heavier than air
Odour:	Mild Aromatic	Solubility (water):	Not soluble
PH:	Not applicable	Boiling Point:	138 °C
Specific Gravity:	1.4 (@25 °C)	Flash Point, cc:	N/A
Freezing Point:	48 °C		

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 pneumitis 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

This product is not classified as a dangerous good in Australia Dangerous Goods Code by reference to a specific substance name or a generic name or group.

U.N. Number: None

Dangerous Goods Class: N/A

SECTION 15 – REGULATORY INFORMATION

Country/Region	:	Australia
Inventory	:	AISC
Status	:	Listed
Poisons Schedule	:	6

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

CONTACT: **Sealex Industries 1300 555 955**

Date of issue: February 10, 2009

IMPORTANT NOTE:

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