SAFETY DATA SHEET

Safety Data Sheet conforms to Safe Work Australia and Work Health and Safety (WHS) Regulations

Version: 1

Date Prepared: 27-Mar-2020

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1. IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Name:	**Shield Pro Klear Coat Poly SP44**
Other means of identification:	None
Product Description:	HARD SURFACE SEALANT
Intended/Recommended Use:	Recommended for Industrial and/or Professional use only
Uses advised against:	Not available

LEFT PILLAR PTY LTD TA'S SHIELD CHEMICALS
Unit 7/37 Anzac Avenue Smeaton Grange, Sydney, NSW, 2567, AUSTRALIA

EMERGENCY TELEPHONE NUMBER 1300 519 074 (business hours only)

or Email us at info@krystalshield.com.au

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2. HAZARDS IDENTIFICATION

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.
Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Additional GHS classification or other information may be included in this section but has not been adopted by Work Health and Safety (WHS) Regulations.

GHS Classification
Flammable Liquids Hazard Category 3
Acute Toxicity (Inhalation) Hazard Category 4
Target Organ Systemic Toxicant (TOST) - Repeated Exposure Hazard Category 2
Target Organ Systemic Toxicant (TOST) - Single Exposure Hazard Category 3
Skin Corrosion / Irritation Hazard Category 2
Serious Eye Damage / Eye Irritation Hazard Category 2A
Skin Sensitizer Hazard Category 1A
Aquatic Environment Acute Hazard Category 3
Aquatic Environment Chronic Hazard Category 3

LABEL ELEMENTS

Name of Pictogram(s)
Flame
Health hazard
Exclamation mark

Signal Word
WARNING

Hazard Statements
Flammable liquid and vapour
Harmful if inhaled
May cause damage to organs through prolonged or repeated exposure
May cause respiratory irritation
Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
Harmful to aquatic life
Harmful to aquatic life with long lasting effects

Precautionary Statements

Prevention
Keep away from heat, sparks and open flame. - No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical, ventilating, lighting and other equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves and eye/face protection. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Do not breathe vapors or spray mist.

Response
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. Specific treatment - refer to supplemental first aid instructions. Take off contaminated clothing and wash before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention. Get medical attention/advice if you feel unwell.

Storage
Store in well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

Disposal
Dispose of contents/container in accordance with local and national regulations.

OTHER HAZARDS
Not applicable

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3. COMPOSITION AND INFORMATION ON INGREDIENTS

Substance, Mixture or Article? Mixture

Component / CAS No.	%	GHS Classification
Xylene 1330-20-7	40-50	Flam. Liq. 3 (H226) Acute Tox. 4 (H312) Acute Tox. 4 (H332) STOT RE 2 (H373) STOT Single 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2A (H319) Asp. Tox. 1 (H304)
Ethylbenzene 100-41-4	10-<15	Flam. Liq. 2 (H225) Acute Tox. 4 (H332) STOT RE 2 (H373) Asp. Tox. 1 (H304) Aquatic Acute 2 (H401) Aquatic Chronic 3 (H412)
1-Methoxy-2-propanol acetate 108-65-6	5-<10	Flam. Liq. 3 (H226) Skin Irrit. 3 (H316) Eye Irrit. 2B (H320)
2-(2`-Hydroxy-3`,5`-di-tert-amylphenyl) benzotriazole 25973-55-1	1-<2.5	STOT RE 2 (H373) Aquatic Chronic 4 (H413)
Methylene bis(4-cyclohexylisocyanate) 5124-30-1	<1	Acute Tox. 2 (H330) 2 STOT SE 3 (H335) 2 Skin Irrit. 2 (H315) 2 Eye Irrit. 2A (H319) 2 Resp. Sens. 1 (H334) 2 Skin Sens. 1B (H317) 2
Bis(1,2,2,6,6-Pentamethyl-4-piperidinyl) sebacate 41556-26-7	<1	Skin Sens. 1A (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Dibutyltin dilaurate 77-58-7	<0.25	Muta. 2 (H341) Repr. 1B (H360FD) STOT RE 1 (H372) STOT Single 1 (H370) Skin Corr. 1C (H314) Eye Dam. 1 (H318) Skin Sens. 1B (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Methyl-1,2,2,6,6-pentamethyl-4-piperidinyl sebacate 82919-37-7	<0.25	Skin Sens. 1A (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)

Other non-hazardous ingredients to 100%

Additional GHS classification or other information may be included in this section but has not been adopted by Work Health and Safety (WHS) Regulations.

See Section 16 for full text of H phrases.

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4. FIRST-AID MEASURES

Emergency telephone number

Poisons Information Centre, Australia: 13 11 26

Symptoms and Signs of Poisoning:
May cause allergy or asthma symptoms or breathing difficulties if inhaled. Coughing and/ or wheezing. Itching. Rashes. Hives. Burning sensation.

Eye Contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Skin Contact:
Wash immediately with plenty of water and soap. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a doctor. Get medical attention if irritation develops and persists. Wash off immediately with soap and plenty of water for at least 15 minutes.

Ingestion:
May produce an allergic reaction. If an allergic reaction occurs, stop use and seek medical help right away. Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention. Call a doctor.

Inhalation:
MAY CAUSE ALLERGIC RESPIRATORY REACTION. If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Get immediate medical advice/attention. IF exposed or concerned: Get medical advice/attention. Get medical attention immediately if symptoms occur.

Notes To Physician:
May cause sensitisation in susceptible persons. Treat symptomatically.

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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:
Carbon dioxide. dry chemical. Alcohol resistant foam. Water spray.

Unsuitable Extinguishing Media:
full water jet.

Protective Equipment:
Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

Special Hazards:
May be ignited by heat, sparks or flames. In case of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact. Thermal decomposition can lead to release of irritating and toxic gases and vapours. Flammable. Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Product is or contains a sensitiser. May cause sensitization by skin contact.

HAZCHEM Code: •3Y

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions:
Evacuate personnel to safe areas. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take action to prevent static

discharge. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Ventilate the area.

Methods For Containment:
Stop leak if safe to do so. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dyke far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods For Cleaning Up:
Take action to prevent static discharge. Dam up. Soak up with inert absorbent material. Take up mechanically, placing in appropriate containers for disposal.

Environmental Precautions:
Avoid release to the environment.

References to other sections:
See Sections 7, 8 and 13 for additional information.

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7. HANDLING AND STORAGE

Handling

Precautions: Keep away from heat, sparks and open flame. - No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical, ventilating, lighting and other equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves and eye/face protection. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Do not breathe vapors or spray mist.

Special Handling Statements: Use personal protection equipment. Avoid contact with skin and eyes. Avoid breathing vapor or mist. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take action to prevent static discharge. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practices. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Provide extract ventilation to points where emissions occur. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes without delay. Take off contaminated clothing and wash it before reuse. Containers must be bonded and grounded when pouring or transferring material.

Storage
Keep container tightly closed and dry in a cool, well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labelled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up. Keep out of reach of children. Store separately.

Storage Temperature: Ambient temperature
Reason: Safety.

Australian AS 1940 Storage Classification: Flammable liquid

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8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

CONTROL PARAMETERS - Limits

Xylene 1330-20-7

Australia:	80 ppm (TWA)
	350 mg/m³ (TWA)
	150 ppm (STEL)
	655 mg/m³ (STEL)
New Zealand:	50 ppm (TWA)
	217 mg/m³ (TWA)
ACGIH (TLV):	150 ppm (STEL)
	100 ppm (TWA)

Ethylbenzene 100-41-4

Australia:	100 ppm (TWA)
	434 mg/m³ (TWA)
	125 ppm (STEL)
	543 mg/m³ (STEL)
New Zealand:	100 ppm (TWA)
	434 mg/m³ (TWA)
	125 ppm (STEL)
	543 mg/m³ (STEL)
ACGIH (TLV):	20 ppm (TWA)

1-Methoxy-2-propanol acetate 108-65-6

Australia:	50 ppm (TWA)
	274 mg/m³ (TWA)
	100 ppm (STEL)
	548 mg/m³ (STEL)

Methylene bis(4-cyclohexylisocyanate) 5124-30-1

Australia:	0.02 mg/m³ NCO (TWA)
	0.07 mg/m³ NCO (STEL)
New Zealand:	0.02 mg/m³ NCO dust, mist or vapours (TWA)
	0.07 mg/m³ NCO dust, mist or vapour (STEL)
ACGIH (TLV):	0.005 ppm (TWA)

Dibutyltin dilaurate 77-58-7

Australia:	0.1 mg/m³ Sn (TWA)
	0.2 mg/m³ Sn (STEL)
New Zealand:	0.1 mg/m³ Sn (TWA)
	0.2 mg/m³ Sn (STEL)
	(skin)
ACGIH (TLV):	0.2 mg/m³ Sn (STEL)
	(skin)
	0.1 mg/m³ Sn (TWA)

Biological Exposure Limit(s)

Xylene 1330-20-7

Biological Exposure Indices (ACGIH)	1.5 g/g creatinine (urine - end of shift)

Ethylbenzene 100-41-4

Biological Exposure Indices (ACGIH)	0.15 g/g creatinine (urine - end of shift)

Engineering Measures:
Minimize exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.

Respiratory Protection:
For operations where inhalation exposure can occur use an approved respirator. Recommendations are listed below. Other protective respiratory equipment may be used based on user's own risk assessment.

Where respiratory protection is required, use a respirator selected and in accordance with AS/NZS 1715 and AS/NZS 1716.

Recommended:
Full Face Mask with organic vapor cartridge, Type A filter (BP >65°C)

Eye protection:
Tight sealing safety goggles. Face protection shield.

Skin Protection:
Antistatic footwear. Wear fire/flame resistant/retardant clothing. Gloves made of plastic or rubber. Wear suitable protective clothing. Apron.

Hand protection:
Wear protective gloves. Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred. Replace gloves immediately when torn or any change in appearance (dimension, colour, flexibility etc) is noticed.

Gloves for repeated or prolonged exposure - non exhaustive list:
Viton®/Butyl rubber, thickness: 0.7 mm, break through time: > 480 min

Gloves for short term exposure/splash protection - non exhaustive list:
Nitrile rubber (NBR), thickness: > 0.56 mm, break through time: < 60 min

The chemical resistance depends on the type of product and amount of product on the glove. Therefore gloves need to be changed when in contact with chemicals.

Not suitable gloves - non exhaustive list:
Natural rubber (NRL), thickness: 0.12 mm

Additional Advice:
When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wash hands before breaks and immediately after handling the product. Wash hands before breaks and after work. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Remove and wash contaminated clothing and gloves, including the inside, before re-use.

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9. PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Colour:	clear amber
Appearance:	clear liquid
Odor:	aromatic PETROLEUM DISTILLATES
Odor Threshold:	See Section 8 for exposure limits.
pH:	Not available
Melting Point:	Not available
Boiling Point:	137 - 143 °C (based on components)
Flash point:	29 °C Pensky-Martens Closed Cup
Evaporation Rate:	0.70
Flammable Limits (% By Vol):	Lower: 1.1 Upper: 7.7
Vapor Pressure:	52 hPa, 40°C Derived from solvent
Vapour density:	3.7 Derived from solvent
Specific Gravity/Density:	0.980 g/cm³
Solubility In Water:	Insoluble
Partition coefficient (n-octanol/water):	Not available
Autoignition temperature:	Not available

Decomposition Temperature:	Not available
Viscosity (Kinematic):	56 mm^2/s
Viscosity (Dynamic):	55 mPa.s
Explosive Properties:	Not available
Oxidizing Properties:	Not available

OTHER INFORMATION

Fat Solubility (Solvent-Oil):	Not available
Percent Volatile (% by wt.):	Not available
Solids Content:	Not available
Saturation In Air (% By Vol.):	Not available
Acid Number (mg KOH/g):	Not available
Hydroxyl Value (mg KOH/g):	Not available
Volatile Organic Content (1999/13/EC):	Not available

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10. STABILITY AND REACTIVITY

Reactivity:	No information available
Stability:	Stable.
Conditions To Avoid:	Heat, flames and sparks.
Polymerization:	Will not occur
Conditions To Avoid:	None known.
Materials To Avoid:	Strong acids Strong bases Strong oxidizing agents.
Hazardous Decomposition Products:	None known

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11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Skin, Eyes, Oral, Respiratory System.

HEALTH HAZARD INFORMATION

Acute toxicity - oral: Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.
Acute toxicity - dermal: Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.
Acute toxicity - inhalation: Harmful if inhaled

Skin corrosion / irritation: Causes skin irritation
Serious eye damage / eye irritation: Causes serious eye irritation

Respiratory sensitization: Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.
Skin sensitization: May cause an allergic skin reaction

Carcinogenicity: Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.
Germ cell mutagenicity: Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.
Reproductive toxicity: Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.

Specific target organ toxicity (single exposure): May cause respiratory irritation.
Specific target organ toxicity (repeated exposure): May cause damage to organs through prolonged or repeated exposure.
Route of Exposure: inhalation **Affected Organs:** Central nervous system, Liver, Kidneys, Ears

Aspiration hazard: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

PRODUCT TOXICITY INFORMATION

ACUTE TOXICITY DATA

oral	rat	Acute LD50	> 2000 mg/kg
dermal	rabbit	Acute LD50	> 2000 mg/kg
inhalation	rat	Acute LC50 4 hr	> 5 mg/l (Dust/Mist)
20.00 mg/l (Vapors)			

Specific target organ toxicity (single exposure): May cause respiratory irritation.

LOCAL EFFECTS ON SKIN AND EYE

Acute Irritation	Skin	Irritating
Acute Irritation	eye	Irritating

ALLERGIC SENSITIZATION

Sensitization	Skin	Sensitizing
Sensitization	respiratory	No data

Specific target organ toxicity (repeated exposure): May cause damage to central nervous system, liver, kidneys and ears through prolonged or repeated exposure by inhalation. .

GENOTOXICITY

Assays for Gene Mutations

Ames Salmonella Assay	No data

OTHER INFORMATION
The product toxicity information above has been estimated.

HAZARDOUS INGREDIENT TOXICITY DATA

Xylene has an acute oral LD50 (rat) of > 3523 mg/kg, acute dermal LD50 (rabbit) value of 4200 mg/kg, and an acute 4-hour LC50 (rat) of 29 mg/l (vapor). Inhalation of vapors may be irritating to the nose and throat. Inhalation of high concentrations may result in nausea, vomiting, headache, ringing in the ears, and severe breathing difficulties, which may be delayed in onset. High vapor concentrations are anesthetic and central nervous system depressants. Ingestion causes burning sensation in mouth and stomach, nausea vomiting and salivation. Minute amounts aspirated into the lungs can produce a severe hemorrhagic pneumonitis with severe pulmonary injury or death. Chronic inhalation can cause headache, loss of appetite, nervousness and pale skin. Skin contact results in moderate irritation and loss of natural oils. Repeated or prolonged skin contact may cause a skin rash. May be absorbed through the skin. Vapors cause eye irritation. Splashes cause severe irritation, possible corneal burns and eye damage. Repeated

exposure of eyes to high concentrations of vapor may cause reversible eye damage. Chronic, repeated exposure may cause blood cell damage resulting in low blood cell count. May damage liver and kidneys. Xylene has been investigated for reproductive toxicity and may cause teratogenic effects.

Ethylbenzene has acute oral (rat) and dermal (rabbit) LD50 values of 3500 mg/kg and 15400 mg/kg respectively. The 4-hour inhalation LC50 in rats is 2180 ppm. It is a mild eye (rated 2 on a scale of 10) and a mild skin (rated 4 on a scale of 10) irritant. Prolonged exposure to the vapor of ethylbenzene may cause irritation of the eyes and upper respiratory tract, vertigo, motor ataxia, unconsciousness, and hematological disorders and hepatobiliary complaints. The International Agency for Research on Cancer has evaluated ethylbenzene and classified it as a possible human carcinogen (Group 2B) based on sufficient evidence for carcinogenicity in experimental animals, but inadequate evidence for cancer in exposed humans. Developmental toxicity studies in rats indicate skeletal malformation and reduced foetal weight.

Methoxy-2-propanol acetate has acute oral (rat), acute dermal (rabbit) LD50 values of 8532 mg/kg and >5000 mg/kg, respectively. The acute 4-hr inhalation (rat) LC50 is reported to be 35.7 mg/L. Direct contact with 1-Methoxy-2-propanol acetate can cause mild eye and skin irritation.

The acute oral (rat) and acute dermal (rabbit) LD50 values for 2-(2`-Hydroxy-3`,5`-di-tert-amylphenyl)benzotriazole are >7,750 mg/kg and >1,100 mg/kg, respectively. The acute 4-hour inhalation (rat) LC50 is >0.4 mg/l. This material is minimally irritating to rabbit skin, but is non-irritating to rabbit eyes. Direct contact with this material did not produce dermal sensitization in guinea pigs. This material is negative in the Ames test.
2-(2`-Hydroxy-3`,5`-di-tert-amylphenyl)benzotriazole was fed to one group of rats for 49 days at a dose level of 2,000 ppm (20 mg/kg). Effects noted were decreased body weight and increased liver, kidney and testes (males only) weight. Enlarged, discolored livers were seen at terminal necropsy. Histopathology revealed enlarged parenchymal cells and necrosis of individual hepatocytes. During two separate 90-day feeding studies with rats, this material produced liver and kidney damage, and signs of anemia. The no-observable effect level (NOEL) for the anemia was 100 ppm. The NOEL for the liver and kidney effects were less than 100 ppm and 400 ppm, respectively. During a 90-day feeding study with dogs, liver damage (NOEL less than 15 mg/kg), kidney damage (NOEL 15 mg/kg), signs of anemia (NOEL 60 mg/kg) and adverse reproductive effects (atrophy of the uterus and abnormal spermiogenesis, (NOEL 30 mg/kg), and atrophy of the prostate (NOEL 15 mg/kg) were produced.

Acute overexposure to Methylene bis(4-cyclohexyl isocyanate) (Hydrogenated MDI) vapor may cause severe respiratory irritation. Repeated overexposure to low levels may cause respiratory sensitization and allergic reactions. Respiratory sensitization manifests itself as severe breathing difficulty similar to asthma. This reaction may occur 6-24 hours after exposure and at exposure levels below the established permissible limits. Skin exposure to the liquid may cause moderate to severe irritation and allergic skin reactions. Hydrogenated MDI is also an eye irritant. The oral LD50 (rat) is >18 g/kg. The dermal LD50 (rat) is >7000 mg/kg. The 4-hour inhalation (rat, aerosol) LC50 of Hydrogenated MDI is 0.33 mg/l. This material is not mutagenic in the bacterial or mammalian cell cultures.

Bis(1,2,2,6,6-pentamethyl-4-piperidinyl)sebacate (CAS# 41556-26-7) has an acute oral (rat) and acute dermal (rat) LD50 of 3230 mg/kg and > 3170 mg/kg respectively. Direct contact with this material may cause mild skin and minimal eye irritation. Material may cause skin sensitization. No mutagenicity was seen in the bacteria reverse mutation test. There was some clastogenic effect in the in vitro chromosomal aberration test, but this was not confirmed in the micronucleus assay. No adverse effects on reproduction nor teratogenicity were noted in a study with a structural analogue. Carcinogenicity was not investigated.

Based on literature and actual test data, dibutyltin dilaurate (DBTL) has acute oral LD50 values ranging from less than 2000 to >2000 mg/kg. The acute dermal LD50 (rat) is >2000 mg/kg. Dibutyltin dilaurate (DBTL) may cause severe skin irritation. This substance may cause skin sensitization (allergic skin reactions). Repeated oral administration of DBTL has caused liver damage and death in animals. Neurotoxicity has also been observed in animals after oral exposure. DBTL may impair fertility, may cause harm to the unborn child and is suspected of causing genetic defects. Tumour formation was not observed in a 2-year chronic study conducted with mice and rats with a structural analogue. Organotin compounds are suspected of causing immunosuppressant effects.

Methyl 1,2,2,6,6-pentamethyl-4-piperidinyl sebacate (CAS# 82919-37-7) has an acute oral (rat) and acute dermal (rat) LD50 of 3230 mg/kg and > 3170 mg/kg respectively. Direct contact with this material may cause mild skin and minimal eye irritation. Material may cause skin sensitization. No mutagenicity was seen in the bacteria reverse mutation test. There was some clastogenic effect in the in vitro chromosomal aberration test, but this was not confirmed in the micronucleus assay. No adverse effects on reproduction nor teratogenicity were noted in a study with

a structural analogue. Carcinogenicity was not investigated.

Inventory Multi-tiered Assessment and Prioritization (IMAP)
This product contains one or more Stage One Chemical(s).

Component / CAS No.	Stage One Chemicals
Xylene 1330-20-7	Tier II Final (Human Health);Remaining Priority (Environment) NICNAS holds data;Concern has been raised overseas
Ethylbenzene 100-41-4	Tier II Final (Human Health);Tier I Final (Environment) Concern has been raised overseas
1-Methoxy-2-propanol acetate 108-65-6	Tier I Final (Human Health);Tier I Final (Environment) NICNAS holds data
Bis(1,2,2,6,6-Pentamethyl-4-piperidinyl) sebacate 41556-26-7	Remaining Priority (Human Health);Remaining Priority (Environment) Concern has been raised overseas
Dibutyltin dilaurate 77-58-7	Tier II Final (Human Health);Remaining Priority (Environment) NICNAS holds data

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12. ECOLOGICAL INFORMATION

Overall Environmental Toxicity: Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

The ecological assessment for this material is based on an evaluation of its components.

ECOTOXICITY
Not available

BIOACCUMULATIVE POTENTIAL
Not available

PERSISTENCE AND DEGRADABILITY
Not available

MOBILITY IN SOIL
Not available

OTHER ADVERSE EFFECTS

HAZARD TO THE OZONE LAYER
Not available

HAZARDOUS INGREDIENT TOXICITY DATA

Component / CAS No.	Toxicity to Fish
Xylene (1330-20-7)	LC50 2.661 - 4.093 mg/L - Oncorhynchus mykiss (96h) LC50 30.26 - 40.75 mg/L - Poecilia reticulata (96h) LC50 = 13.4 mg/L - Pimephales promelas (96h) LC50 23.53 - 29.97 mg/L - Pimephales promelas (96h) LC50 7.711 - 9.591 mg/L - Lepomis macrochirus (96h) LC50 13.5 - 17.3 mg/L - Oncorhynchus mykiss (96h) LC50 = 780 mg/L - Cyprinus carpio (96h) LC50 > 780 mg/L - Cyprinus carpio (96h) LC50 = 19 mg/L - Lepomis macrochirus (96h) LC50 13.1 - 16.5 mg/L - Lepomis macrochirus (96h)
Ethylbenzene (100-41-4)	LC50 11.0 - 18.0 mg/L - Oncorhynchus mykiss (96h) LC50 7.55 - 11 mg/L - Pimephales promelas (96h) LC50 = 9.6 mg/L - Poecilia reticulata (96h) LC50 9.1 - 15.6 mg/L - Pimephales promelas (96h) LC50 = 32 mg/L - Lepomis macrochirus (96h) LC50 = 4.2 mg/L - Oncorhynchus mykiss (96h)
1-Methoxy-2-propanol acetate (108-65-6)	LC50 = 161 mg/L - Pimephales promelas (96h)
2-(2`-Hydroxy-3`,5`-di-tert-amylphenyl) benzotriazole (25973-55-1)	LC50 >100 mg/l - Zebra Fish (Brachydanio rerio) (96h)
Methylene bis(4-cyclohexylisocyanate) (5124-30-1)	LC50 = 1.2 mg/L - Brachydanio rerio (96h) LC50 1.2 - 2.76 mg/L - Brachydanio rerio (96h)
Bis(1,2,2,6,6-Pentamethyl-4-piperidinyl) sebacate (41556-26-7)	LC50 = 0.97 mg/L - Lepomis macrochirus (96h)
Dibutyltin dilaurate (77-58-7)	LC50 = 2 mg/L - Oryzias latipes (48h) LC50 = 3.1 mg/L - Brachydanio rerio (zebrafish)
Methyl-1,2,2,6,6-pentamethyl-4-piperid inyl sebacate (82919-37-7)	Not available

Component / CAS No.	Toxicity to Water Flea
Xylene (1330-20-7)	EC50 = 3.82 mg/L - water flea (48h) LC50 = 0.6 mg/L - Gammarus lacustris (48h)
Ethylbenzene (100-41-4)	EC50 1.8 - 2.4 mg/L - Daphnia magna (48h)
1-Methoxy-2-propanol acetate (108-65-6)	EC50 > 500 mg/L - Daphnia magna (48h)
2-(2`-Hydroxy-3`,5`-di-tert-amylphenyl) benzotriazole (25973-55-1)	EC50 > 10 mg/l - Daphnia pulex (48h) EC50 > 100 mg/l - Daphnia magna (24h)
Methylene bis(4-cyclohexylisocyanate) (5124-30-1)	Not available
Bis(1,2,2,6,6-Pentamethyl-4-piperidinyl) sebacate (41556-26-7)	EC50 = 20 mg/L - Daphnia magna (24h)
Dibutyltin dilaurate (77-58-7)	EC50 = 0.463 mg/L - Daphnia magna
Methyl-1,2,2,6,6-pentamethyl-4-piperid inyl sebacate (82919-37-7)	Not available

Component / CAS No.	Toxicity to Algae
Xylene (1330-20-7)	Not available
Ethylbenzene (100-41-4)	EC50 > 438 mg/L - Pseudokirchneriella subcapitata (96h)

	EC50 = 4.6 mg/L - Pseudokirchneriella subcapitata (72h) EC50 1.7 - 7.6 mg/L - Pseudokirchneriella subcapitata (96h) EC50 2.6 - 11.3 mg/L - Pseudokirchneriella subcapitata (72h)
1-Methoxy-2-propanol acetate (108-65-6)	Not available
2-(2`-Hydroxy-3`,5`-di-tert-amylphenyl) benzotriazole (25973-55-1)	EC50 >10 mg/l - Green Algae (Scenedesmus subspicatus) (72h) NOEC < 0.1 mg/l Green Algae (Scenedesmus subspicatus) (72h)
Methylene bis(4-cyclohexylisocyanate) (5124-30-1)	Not available
Bis(1,2,2,6,6-Pentamethyl-4-piperidinyl) sebacate (41556-26-7)	Not available
Dibutyltin dilaurate (77-58-7)	EC50 = 1 mg/L - Scenedesmus subspicatus (algae)
Methyl-1,2,2,6,6-pentamethyl-4-piperid inyl sebacate (82919-37-7)	Not available

Component / CAS No.	Partition coefficient
Xylene (1330-20-7)	2.77 - 3.15
Ethylbenzene (100-41-4)	3.2
1-Methoxy-2-propanol acetate (108-65-6)	0.43
2-(2`-Hydroxy-3`,5`-di-tert-amylphenyl) benzotriazole (25973-55-1)	Not available
Methylene bis(4-cyclohexylisocyanate) (5124-30-1)	Not available
Bis(1,2,2,6,6-Pentamethyl-4-piperidinyl) sebacate (41556-26-7)	0.37
Dibutyltin dilaurate (77-58-7)	Log Kow = 4.44
Methyl-1,2,2,6,6-pentamethyl-4-piperid inyl sebacate (82919-37-7)	Not available

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13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods
The company encourages the recycle and reuse of products and packaging, where possible and permitted.

Product disposal
When recycle or reuse is not possible, the company recommends that our products, especially when classified as hazardous, be disposed of at approved facilities. All local and national regulations should be followed.

Packaging disposal
Handle contaminated packages in the same way as the product itself. Disposal of emptied and cleaned packaging must be made in accordance with applicable local and national regulations.

Disposal-relevant information
Do not release directly or indirectly to surface water, ground water, soil or public sewage system.

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14. TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

Australia (ADG)

Dangerous Goods? X

PROPER SHIPPING NAME:	RESIN SOLUTION
Hazard Class:	3
UN Number:	UN1866
Packing Group:	III
Transport Label Required:	Flammable liquid
HAZCHEM Code:	•3Y

IMO

Dangerous Goods? X

UN PROPER SHIPPING NAME:	RESIN SOLUTION
Transport Hazard Class:	3
UN Number:	UN1866
Packing Group:	III
Transport Label Required:	Flammable liquid

ICAO / IATA

Dangerous Goods? X

UN PROPER SHIPPING NAME:	RESIN SOLUTION
Transport Hazard Class:	3
Packing Group:	III
UN Number:	UN1866
Transport Label Required:	Flammable liquid

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15. REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product in question

Ozone Depleting Substances (Regulation (EC) No 1005/2009): Not applicable
Persistent Organic Pollutants (Regulation (EC) No 850/2004): Not applicable

Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)
Classified as a scheduled poison according to the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)
Poison Schedule Number: S5

Work Health and Safety Regulations (Banned and/or restricted)
This product contains one or more substance(s) subject to prohibition, authorization or restriction. Verify that requirements related to using, handling, and storing substances subject to prohibition, authorization or restriction are met.

Component / CAS No.	Prohibited Carcinogens	Restricted substance
Dibutyltin dilaurate 77-58-7		For abrasive blasting at a concentration of >0.1% as Tin

16. OTHER INFORMATION

RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

WORK PRACTICES - SOLVENTS: Organic solvents may present both a health and flammability hazard. It is recommended that engineering controls should be adopted to reduce exposure where practicable (for example, if using indoors, ensure explosion proof extraction ventilation is available). Flammable or combustible liquids with explosive limits have the potential for ignition from static discharge. Refer to AS 1020 (The control of undesirable static electricity) and AS 1940 (The storage and handling of flammable and combustible liquids) for control procedures.

SYNERGISM - ANTAGONISM: Ingredients in this product may act together to aggravate or reduce adverse effects. Accordingly the time weighted average concentration (TWA) provided for single ingredients should be considered as a guide only and all due care exercised when handling.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:
The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as form of product, method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE:
It should be noted that the effects from exposure to this product will depend on several factors including: form of product; frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.
Additional information
SDS