

SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION: PRODUCT IDENTIFIER/CHEMICAL IDENTITY

- 1.1 PRODUCT IDENTIFIER:** Bona SuperSport HD Hardener
- 1.2 PRODUCT CODE:** Not applicable
- 1.3 RELEVANT IDENTIFIED USES OF THE MIXTURE AND USES ADVISED AGAINST:**
RELEVANT IDENTIFIED USES: Hardener for 2-Component waterborne finish for timber sports floors.
RESTRICTIONS ON USE: Manufacturer nominates for Professional use only.
- 1.4 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET:**
SUPPLIER NAME: Bona Australia Pty Ltd (ABN: 2208 758 1520),
ADDRESS: Unit 9, Wareca Business Park
1866 Princes Highway, Clayton, Victoria, 3168
E-MAIL: info@bona.net.au
TELEPHONE NUMBER: 03 9543 4399
- 1.5 EMERGENCY TEL. NUMBER:** 03 9543 4399 Business Hours. (0408 008 762 After Hours or National Chemical Emergency Centre Europe 18000 74234.)

SECTION 2 – HAZARD(S) IDENTIFICATION

2.1 CLASSIFICATION OF THE HAZARDOUS CHEMICAL: GHS CLASSIFICATION HAZARD

CLASS & CATEGORY: The product is a mixture and has been assessed under the Model Work Health and Safety Regulations with the following Classification:

Sensitisation Skin -	Category 1
Eye Damage/Irritation -	Category 2A
Acute Toxicity - Inhalation -	Category 4
Specific Target Organ Toxicity (Single Exposure) -	Category 3
Chronic Aquatic Toxicity -	Category 3

2.2 LABEL ELEMENTS INCLUDING PRECAUTIONARY STATEMENTS:

SIGNAL WORD: Warning

PICTOGRAMS:



HAZARD STATEMENTS: H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H332 - Harmful if inhaled.
H335 - May cause respiratory irritation.
H412 - Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS:

PREVENTION: P102 - Keep out of reach of children.
P103 - Read label before use.
P261 - Avoid breathing mists/vapours/spray.
P264 - Wash hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/eye protection/face protection.

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SECTION 2 – HAZARD(S) IDENTIFICATION Continued

RESPONSE: P101 - If medical advice is needed, have product container or label at hand.
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
 P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P312 - Call a POISON CENTRE (Phone in Australia 131 126; New Zealand 0800 764 766) or doctor/physician if you feel unwell.
 P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention.
 P337 + P313 - If eye irritation persists: Get medical advice/attention.
 P362+P364 - Take off contaminated clothing and wash it before reuse.

STORAGE: P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
 P405 - Store locked up.

DISPOSAL: P501 - Dispose of contents/container in accordance with local regulations.

2.3 OTHER HAZARDS: This product contains isocyanate components and based upon these types of compounds the product may cause sensitisation of the respiratory system leading to an asthmatic condition, wheezing and tightness of the chest. People previously sensitised to isocyanates may exhibit asthmatic symptoms well below the nominated Occupational Exposure Level. Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. As for all chemical products, persons should not expose open wounds, cuts, abrasions or irritated skin to the material.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENTS	CAS NUMBER	Concentration % W/W	GHS Classification*
Hexane, 1,6-diisocyanato-, homopolymer, polyethylene glycol mono-methyl ether blocked	160994-68-3	25% - < 50%	Skin Sen 1 - H317 Acute Tox 4 - H332
H332			STOT SE 3 - H335 Chron Aq Tox 3 - H412
1,3-Dioxolan-2-one, 4-methyl- (Propylene carbonate)	108-32-7	25% - < 50%	Eye Irrit 2A - H319
Hexane, 1,6-diisocyanato-, homopolymer	28182-81-2	10% - < 25%	Skin Sen 1 - H317 Acute Tox 4 - H332 STOT SE 3 - H335

* Please see Section 15 of this SDS for the full text description of the Label Elements.

SECTION 4 – FIRST AID MEASURES

4.1 DESCRIPTION OF NECESSARY FIRST AID MEASURES:

INGESTION: Rinse mouth out with water. Due to the blend of ingredients present, the manufacturer recommends that if swallowed, do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. If irritation develops or persists or vomiting has occurred after ingestion, seek medical assistance. As the product contains an isocyanate component, within 6 hours of ingestion, if delayed symptoms, such as a fever greater than 38.3°C, shortness of breath, chest congestion or continued coughing/wheezing occurs transport immediately to a medical facility. For advice, contact the Poisons Information Centre (phone Australia 131 126; New Zealand 0800 764 766) or a doctor at once.

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SECTION 4 – FIRST AID MEASURES Continued

EYE: If in eyes, hold eyelids apart and flush the eye immediately with large amounts of running water. Continue flushing for at least 15 minutes or until advised to stop by a Doctor. Check for contact lenses. If there are contact lenses, these should be removed after several minutes of rinsing by the exposed person or medical personnel if it can be done easily. As the product is an eye irritant, after flushing, if irritation develops or persists, seek medical assistance.

SKIN CONTACT: If skin or hair contact has occurred remove any contaminated clothing and footwear, wash skin or hair thoroughly with soap and water. Do NOT use solvent and/or thinners. If skin irritation develops or persists, or a rash occurs, consult a Doctor.

INHALATION: As the product is rated as Harmful if inhaled, if affected, remove the patient from further exposure into fresh air, if safe to do so. If providing assistance, avoid exposure to yourself - only enter contaminated environments with adequate respiratory equipment. Once removed, lay patient down in a well-ventilated area and reassure them whilst waiting for medical assistance. If the person feels unwell and symptoms, such as dizziness or uncoordination occur, contact the Poisons Information Centre (phone Australia 131 126; New Zealand 0800 764 766) whilst waiting for medical assistance. If not breathing, provide artificial respiration and seek immediate medical assistance. If unconscious, place in a recovery position and seek immediate medical assistance. If irritation develops or persists, consult a Doctor.

PROTECTION FOR FIRST AIDERS: No personnel shall place themselves in a situation that is potentially hazardous to themselves. Assess the scenario for PPE requirements before entering. Do not enter contaminated area without a respirator or Self-Contained Breathing Apparatus once you have assessed the environment. As the product contains isocyanate components, if the person has ingested the product, do not use direct mouth-to-mouth resuscitation techniques. Always ensure that you are wearing gloves when dealing with first aid procedures involving chemicals and/or blood.

FIRST AID FACILITIES: Eye wash fountain and safety showers are recommended in the area where the product is used. As a minimum a source of flowing, potable water should be available.

4.2 MOST IMPORTANT SYMPTOMS & EFFECTS, BOTH ACUTE & DELAYED, CAUSED BY EXPOSURE:

ACUTE: Ingestion or inhalation of vapours may lead to irritation of the mouth and respiratory tract, and potentially adverse effects on the kidneys, liver and central nervous system. Symptoms may include a burning sensation in the nose, throat and respiratory tract, headache, dizziness, fatigue, muscular weakness, drowsiness, coughing or difficulty breathing. Eye contact may lead to localised burning, redness, tearing, irritation and reversible damage. Skin contact may lead to redness or itching.

CHRONIC: Skin contact may aggravate/exacerbate existing skin conditions, such as dermatitis. Repeated or prolonged contact with the preparation may cause removal of the natural fats and oils from the skin. Continued contact may lead to non-allergic contact dermatitis and absorption through the skin. The product contains isocyanate components that may cause an allergic skin reaction. Based upon the properties of the isocyanate components and considering toxicological data on similar preparations, the manufacturer nominates that the preparation may cause acute irritation and/or sensitisation of the respiratory system, leading to an asthmatic condition, wheezing and tightness of the chest. Sensitised persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the nominated Exposure Level. Repeated exposure may lead to permanent respiratory disability.

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SECTION 4 – FIRST AID MEASURES Continued

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NECESSARY:

ADVICE TO DOCTOR: Treat symptomatically. The manufacturer recommends that if large quantities have been ingested or inhaled a Poisons Specialists should be contacted immediately as a precaution.

SECTION 5 – FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA:

SUITABLE MEDIA: Use extinguishing media appropriate for surrounding fire. Use carbon dioxide, alcohol resistant foam, dry chemical or water spray. Spray down fumes resulting from fire.

UNSUITABLE MEDIA: Avoid using full water jet directed at residual material that may be burning. Water may cause splattering on hot residues.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

COMBUSTION HAZARDS: This product contains isocyanate components. These materials may decompose and release toxic substances. Combustion may produce oxides of carbon and nitrogen, and the materials may decompose and release dense black smoke and toxic substances such as hydrogen cyanide and monomeric isocyanate components. The decomposition and combustion products could therefore present as a health hazard.

5.3 ADVICE FOR FIREFIGHTERS:

FIRE: This product is not flammable under conditions of use, however it is combustible viscous liquid that will ignite if pre-heated. Please note that this product contains isocyanate components. In the event of a fire this material may decompose and release toxic substances. Keep storage tanks and fire exposed surfaces, etc, cool with water spray. Do not allow runoff from a fire to enter drains, sewers or waterways.

HAZCHEM CODE: Not applicable.

EXPLOSION: No information to indicate that the product is an explosion hazard. Extinguish all sources of flame or spark. Closed containers may explode when exposed to extreme heat.

PROTECTIVE EQUIPMENT: In the event of a fire, wear full protective clothing and self-contained breathing equipment with full-face piece operated in the pressure demand or other positive pressure mode.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

PERSONAL PROTECTION: For spills, wear Nitrile Rubber gloves, glasses/goggles, boots and full-length clothing. During routine operation for a small spill in a well ventilated area, a respirator is not required. However, if mists or vapours are generated, an approved organic vapour/particulate respirator is required. For large spills, or in confined spaces, a full chemically resistant body-suit and self-contained breathing apparatus or an air fed respirator should be used.

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SECTION 6 – ACCIDENTAL RELEASE MEASURES Continued

CONTROL MEASURES: Ventilate area and extinguish and/or remove all sources of ignition. CAUTION: Never enter a spill area unless you know the vapours have dissipated to make the area safe. Stop the leak if safe to do so. CAUTION: The spilled product will be slippery. Avoid contact with the spilled material.

EMERGENCY PROCEDURES: In the event of a spill or accidental release, notify the relevant authorities in accordance with all applicable regulations.

6.2 ENVIRONMENTAL PRECAUTIONS:

SPILL ADVICE: Do not allow product to enter drains, surface water, sewers or watercourses - inform local authorities if this occurs. Take precautions against static discharge. Ensure all equipment is grounded and use non-sparking tools during clean up operations.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:

CONTAINMENT: For large spills, evacuate or isolate the spill area according to your local emergency plan. Note: Large spills should be dealt with by people trained in the clean up procedures as per AS4081. Contain the spill and absorb with solid decontaminant as per AS4081. Place used absorbent in suitable containers; add an equal quantity of the isocyanate decontamination solution described in "Cleaning Procedures" below. Leave the container open for at least 24 hours in a well ventilated area to allow complete reaction of the material. Allow the container to remain open for several more days if a visible reaction is still occurring. Sealing of a container with unreacted isocyanates leads to the liberation of CO₂, which can cause overpressure in the container. Caution: Reacting isocyanate will pressurise sealed containers. Follow state or local regulations for the disposal of isocyanate waste. Self-contained breathing apparatus or air supplied respirators must be used. Do not allow the spilled product to enter drains, sewers or watercourses - inform local authorities if this occurs.

CLEANING PROCEDURES: Having contained the spill, collect all material quickly as mentioned above. Personnel must wear safety glasses/goggles, gloves, respirators and full-length protective clothing during cleaning procedures. For large spill clean up operations, personnel must wear self contained breathing apparatus or air supplied respirators. After removing the absorbent, the spill surface should be cleaned with an isocyanate decontamination solution. AS4081 recommends a mixture of 90% water, 2% non-ionic surfactant and 8% concentrated aqueous ammonium hydroxide (0.880 ammonia). Follow the detergent wash with a water rinse. Do not allow the wash or rinse to enter drains, sewers or watercourses - inform local authorities if this occurs. [The manufacturer recommends an alternative decontaminant solution (by volume) of 45 parts water: 50 parts ethanol or isopropyl alcohol: 5 parts concentrated ammonia solution(d:0.880). Please note that this solution is flammable due to the alcohol component. Another non-flammable decontaminant recommended by the manufacturer is 5 parts sodium bicarbonate: 95 parts water].

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SECTION 7 – HANDLING AND STORAGE, INCLUDING HOW THE CHEMICAL MAY BE SAFELY USED

7.1 PRECAUTIONS FOR SAFE HANDLING:

SAFE HANDLING:

Avoid inhalation of vapours. The material should be used in a well-ventilated area to minimise the potential for the build up of vapours. Forced ventilation should be used if there is the potential for vapours to accumulate. Avoid contact with the product by using appropriate protective equipment such as gloves, glasses or goggles and full-length clothing. A full-face shield should be used if there is the potential for the product to enter the eye via processes such as mixing or stirring. An approved respirator for isocyanates should be used if there is the potential for inhaling vapours during the process. Prevent small spills and leakage. Eating, drinking, and smoking should be prohibited in the area where this material is handled, stored and processed. Workers should follow good personal hygiene practices, such as washing hands before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Keep containers tightly closed when not in use. Care should be used when re-opening partially used containers. Precautions should be taken to minimise exposure to atmospheric moisture or water. The presence of moisture will lead to the production of carbon dioxide which may lead to pressurisation of the container. Prevent material from entering waterways, drains or sewers - inform local authorities if this occurs. **Caution:** Persons with a history of asthma, atopic conditions, hay fever, recurrent acute bronchitis, interstitial pulmonary fibrosis, occupational chest disease or impaired lung function should be advised against risking exposure to isocyanates. Persons with these types of ailments should not be employed in any process in which this product is used. Persons with proven isocyanate sensitivity must not be further exposed to isocyanates.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

SAFE STORAGE:

Store in a well ventilated, frost-free area away from direct sunlight, ignition sources, oxidising agents, strong acids and alkalis, foodstuffs and clothing. Only personnel with authorised access should enter a store containing isocyanates. Store only in original containers. Keep containers closed when not in use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Care should be used when re-opening partially used containers due to the possibility of pressure build up. Protect the packaging from damage. When the packaged material is intact the product is deemed to be of limited hazard. Label precautions must be followed at all times.

INCOMPATIBILITIES:

Avoid oxidising agents, including strong acids as well as strong alkalis.

SECTION 8 – EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1 EXPOSURE CONTROL MEASURES:

EXPOSURE LIMIT VALUES: Exposure standards for the product have not been established. Therefore, the following Exposure Standard should be considered:

Isocyanate, all (as -NCO):

TWA: 0.02mg/m³

STEL: 0.07mg/m³

8.2 BIOLOGICAL MONITORING: No data available.

8.3 CONTROL BANDING: No data available.

8.4 ENGINEERING CONTROLS:

ENGINEERING CONTROLS: Use product in a well-ventilated area. Where reasonably practical this should be achieved by the use of local exhaust ventilation and good general extraction. Special ventilation is not normally required. However, in the operation of certain equipment, confined spaces or at elevated temperatures, mists and vapours may be generated and exhaust ventilation should be provided to maintain airborne concentration levels below the nominated exposure standard and at an acceptable level that does not cause irritation.

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SECTION 8 – EXPOSURE CONTROLS & PERSONAL PROTECTION Cont'd

8.5 INDIVIDUAL PROTECTION MEASURES:

EYE & FACE PROTECTION:	Wear safety glasses/goggles to avoid eye contact when handling. If when mixing or stirring, there is a risk of splashing, a full face shield is recommended. Use eye protection in accordance with AS 1336 and AS 1337.
SKIN (HAND) PROTECTION:	If there is the chance of contact with the material; wear gloves to provide hand protection. Nitrile rubber gloves are recommended.
SKIN (CLOTHING) PROTECTION:	During normal operating procedures, long sleeved clothing is recommended to avoid skin contact. Soiled clothing should be washed with detergent prior to re-use.
RESPIRATORY PROTECTION:	Use only in well-ventilated areas. During routine operation with appropriate ventilation, a respirator is not required. If there is a build up of vapours above the exposure level, respiratory protection in the form of an air-supplied respirator must be used. If low level exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment, such as an approved organic vapour/particulate respirator is required. Dry sanding, grinding, flame/heat stripping and cutting of the dry film will give rise to dust and/or hazardous fumes. Wet sanding/flattening should be used wherever possible. If exposure cannot be avoided by the provision of local exhaust ventilation during such operations, suitable respiratory protective equipment, such as an approved half face organic vapour/particulate respirator is required. Use respirators in accordance with AS 1715 and AS 1716. Caution: Persons with a history of asthma, atopic conditions, hay fever, recurrent acute bronchitis, interstitial pulmonary fibrosis, occupational chest disease or impaired lung function should be advised against risking exposure to isocyanates. Persons with these types of ailments should not be employed in any process in which this product is used. Persons with proven isocyanate sensitivity must not be further exposed to isocyanates.

THERMAL PROTECTION: Not applicable.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1 PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE:	Colourless liquid.
ODOUR:	Slight sweetish odour.
ODOUR THRESHOLD:	No data available.
pH:	No data available.
MELTING/FREEZING POINT:	No data available.
INITIAL BOILING POINT:	No data available.
BOILING RANGE (°C):	No data available.
FLASHPOINT (°C):	Typically > 120°C (Closed Cup)
EVAPORATION RATE:	No data available.
FLAMMABILITY LIMITS (%):	No data available.
VAPOUR PRESSURE:	No data available.
VAPOUR DENSITY:	No data available.
DENSITY (g/mL @ 15°C):	Typically 1.09.
SOLUBILITY IN WATER(g/L):	Insoluble in water.
PARTITION COEFFICIENT:	No data available for n-octanol/water.
AUTO-IGNITION TEMP (°C):	No data available.
DECOMPOSITION TEMP (°C):	No data available.
VISCOSITY (cSt @ 100°C):	No data available.
VISCOSITY (cSt @ 40°C):	No data available.

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SECTION 10 – STABILITY AND REACTIVITY

- 10.1 REACTIVITY:** The product does not pose any further reactivity hazards other than those listed in the following sub-sections.
- 10.2 CHEMICAL STABILITY:** Stable under recommended storage and handling conditions (see section 7).
- 10.3 POSSIBILITY OF HAZARDOUS REACTIONS:** Keep away from the following materials to prevent strong exothermic reactions: Oxidising agents, strong alkalis, strong acids, amines, alcohols and water. Please Note: Uncontrolled exothermic reactions may occur with amines and alcohols. The product reacts slowly with water, resulting in the production of carbon dioxide. In closed containers, pressure build up could lead to distortion, expansion, and in extreme cases, bursting of the container. Hazardous polymerisation does not occur.
- 10.4 CONDITIONS TO AVOID:** Observe the usual precautionary measures for handling chemicals. Do not heat the container or leave the container open when not in use. Avoid heat, open flames, sparks. Do not use mechanical cutting tools on used containers. Avoid the materials as discussed in the Hazardous Reactions Section above.
- 10.5 INCOMPATIBLE MATERIALS:** Strong oxidising agents including strong acids, as well as strongly alkaline materials, amines, alcohols and water.
- 10.6 HAZARDOUS DECOMPOSITION PRODUCTS:** Hazardous decomposition products are not expected to form during normal storage requirements. See Section 5.2 for Hazardous Combustion products.

SECTION 11 – TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

The product is a mixture and test data is not available for the product as a whole. The manufacture nominates the following acute toxicity data:

Bona SuperSport HD Hardener:

Inhalation - Dusts & Mists Acute Toxicity Estimate: 3 mg/L

Hexane, 1,6-diisocyanato-, homopolymer, polyethylene glycol mono-methyl ether blocked:

Oral - LD₅₀ (Rat): > 2,000 mg/kg

Inhalation - Dusts & Mists Acute Toxicity Estimate: 1.5 mg/L

1,3-Dioxolan-2-one, 4-methyl- (Propylene carbonate):

Oral - LD₅₀ (Rat): > 5,000 mg/kg

Dermal - LD₅₀ (Rabbit): > 3,000 mg/kg

Hexane, 1,6-diisocyanato-, homopolymer (as oligomers of Hexamethylene diisocyanate):

Oral - LD₅₀ (Rat, Female): 5,000 mg/kg

Dermal - LD₅₀ (Rabbit): > 2,000 mg/kg

Dermal - LD₅₀ (Rat): > 2,000 mg/kg

Inhalation Dusts and Mists - LC₅₀ (Rat, 1 hr) - 18,500 mg/m³

Inhalation - Vapours Acute Toxicity Estimate: 4.625 mg/L

11.2 SWALLOWED:

Ingestion of this product may cause irritation or in severe cases burns to the mouth and gastrointestinal tract. If the product is ingested, the person should be observed to ensure there is no aspiration into the lungs if the person has vomited or if stomach irrigation is deemed necessary. Ingestion of significant quantities may lead to irritation to the stomach and the person may feel nauseous. During normal usage, ingestion should not be a means of exposure.

SAFETY DATA SHEET

SECTION 11 – TOXICOLOGICAL INFORMATION Continued

11.3 SKIN CORROSION/ IRRITATION:

The product is rated as May cause an allergic skin reaction. Isocyanates may have a mild hardening action on the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis. Correct handling procedures incorporating appropriate protective clothing and gloves should minimise the potential for this to occur. People previously sensitised to isocyanates should not be exposed further to these types of materials. People with pre-existing skin conditions such as dermatitis should take care so as not to exacerbate the condition.

11.4 SERIOUS EYE DAMAGE/ IRRITATION:

The product is rated as causes serious eye irritation due to the presence of the 1,3-Dioxolan-2-one, 4-methyl- (propylene carbonate) component. Symptoms may include localised burning, redness and tearing. The manufacturer nominates that the damage caused by this component is generally considered to be reversible. Correct handling procedures incorporating appropriate eye protection should minimise the risk of eye irritation.

11.5 RESPIRATORY OR SKIN SENSITISATION:

The product is rated as May cause an allergic skin reaction. The Guinea Pig and Mouse Skin Sensitisation Tests for the isocyanate components nominated them as sensitising. The product may have a mild hardening action on the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis. Correct handling procedures incorporating appropriate protective clothing and gloves should minimise the potential for this to occur. People previously sensitised to chemicals should not be exposed further to these types of materials. People with pre-existing skin conditions such as dermatitis should take care so as not to exacerbate the condition. This product is not rated as a respiratory tract sensitiser. However, as the product contains isocyanate components precautions should be taken as isocyanates may cause acute irritation or sensitisation of the respiratory system. This may lead to an asthmatic condition, wheezing and chest tightness. Sensitised persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the Occupation Exposure Level. Repeated exposure may lead to permanent respiratory disability.

11.6 GERM CELL MUTAGENICITY:

This product is not expected to be mutagenic based on the available data and the known hazards of the components.

11.7 CARCINOGENICITY:

This product is not expected to be carcinogenic based on the available data and the known hazards of the components.

11.8 REPRODUCTIVE TOXICITY:

This product is not expected to be a reproductive hazard based on the available data and the known hazards of the components.

11.9 SPECIFIC TARGET ORGAN TOXICITY (STOT) - SINGLE EXPOSURE:

The product is rated as Harmful if inhaled and May cause respiratory irritation. If the product is used in a confined space or in an environment where the Occupational Exposure Standard is exceeded then based upon the properties of the isocyanate component and considering toxicological data on similar preparations, this product may cause acute irritation and/or sensitisation of the respiratory system, leading to an asthmatic condition, wheezing and tightness of the chest. Symptoms may include an intense burning sensation in the nose, throat and respiratory tract, headache, dizziness, fatigue, muscular weakness, drowsiness, coughing or difficulty breathing. This product is not expected to cause organ damage from a single exposure, based on the available data and the known hazards of the components.

11.10 SPECIFIC TARGET ORGAN TOXICITY (STOT) -

REPEATED EXPOSURE: This product is not expected to cause damage to organs through prolonged or repeated exposure based on the available data and the known hazards of the components at normal usage levels.

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SECTION 11 – TOXICOLOGICAL INFORMATION Continued

11.11 ASPIRATION HAZARD: Due to the blend of ingredients present, the manufacturer recommends that if swallowed, do NOT induce vomiting. As the product contains isocyanates, aspiration into the lungs may be an issue if vomiting has occurred after ingestion or if stomach irrigation is deemed necessary. As a precaution, if vomiting has occurred after ingestion, the patient should be monitored for adverse effects.

11.12 OTHER INFORMATION: Persons with a history of asthma, atopic conditions, hay fever, recurrent acute bronchitis, interstitial pulmonary fibrosis, occupational chest disease or impaired lung function should be advised against risking exposure to isocyanates. People with these types of ailments should not be exposed to the product or tasks that may potentially release isocyanate vapours, such as sanding, grinding, cutting, and heat stripping of coated material. A person with proven isocyanate sensitivity should not be exposed to isocyanates. Once a person has been exposed to isocyanates they may subsequently show asthmatic symptoms when exposed to concentrations well below the Exposure Standard.

SECTION 12 – ECOLOGICAL INFORMATION

12.1 ECOTOXICITY: There is no data available for the product as a whole. The following data has been provided for the components:

Hexane, 1,6-diisocyanato-, homopolymer, polyethylene glycol mono-methyl ether blocked:

EC₅₀ (Daphnia, 48hr): > 100 mg/L.

IC₅₀ (Algae, 72hr): > 100 mg/L.

LC₅₀ (Fish, 96hr): 28.3 mg/L.

1,3-Dioxolan-2-one, 4-methyl- (Propylene carbonate):

EC₅₀ (Daphnia, 48hr): > 500 mg/L.

EC₅₀ (Aquatic Plants, 72hr): > 500 mg/L.

LC₅₀ (Fish - Leuciscus Idus, 96hr): 5,300 mg/L.

Hexane, 1,6-diisocyanato-, homopolymer (as oligomers of Hexamethylene diisocyanate):

EC₅₀ (Daphnia, 48hr): > 100 mg/L.

EC₅₀ (Algae, 72hr): > 1000 mg/L.

LC₅₀ (Fish, 96hr): >100 mg/L.

Based upon calculated values, the overall product is rated as Harmful to aquatic life with long lasting effects.

12.2 PERSISTENCE & DEGRADABILITY:

No persistence or biodegradability data is available for the product. The manufacturer nominates that the isocyanate components will not be readily biodegradable, while the Propylene carbonate component is readily biodegradable.

12.3 BIOACCUMULATIVE POTENTIAL:

There is no bioaccumulation data available for the product. The manufacturer nominates that the Propylene carbonate component has a low potential for bioaccumulation with a Log Pow of -0.41. The Hexane, 1,6-diisocyanato-, homopolymer component has a low potential for bioaccumulation with a Log Pow of 5.54 and a BCF of 367.7.

12.4 MOBILITY IN SOIL:

No mobility data is available for the product.

12.5 OTHER ADVERSE EFFECTS:

Do not allow product to enter drains, surface water, sewers or watercourses - inform local authorities if this occurs. The product is not miscible with water. According to the manufacturer, the product does not contain any substances that are assessed to be a PBT or a vPvB.

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SECTION 13 – DISPOSAL CONSIDERATIONS

13.1 DISPOSAL METHODS:

PRODUCT:

Spilled product that cannot be recovered should be absorbed and then shovelled into a suitable waste container, such as a plastic drum and then be treated as a solid waste. Please read and follow the instructions in Section 6 - Accidental Release Measures when dealing with spilled product to neutralise the isocyanate component and alleviate the potential for overpressure in the waste container. Follow Government regulations for disposal of such waste. All unused, waste or spilled product should be clearly labelled and must be taken for recycling or disposal by suitably licensed contractors in accordance with Government regulations. For small quantities, do not pour leftover product down the drain. Unwanted material should be brushed out on newspaper, allowed to dry and then disposed of via normal domestic or industrial waste collection.

CONTAINERS:

Empty containers may contain residual material. Containers should be completely drained and then stored in a well-ventilated area until reconditioned or disposed of. Empty containers should be clearly labelled and must be taken for recycling or disposal by suitably licensed contractors in accordance with Government regulations. Empty containers should be recycled wherever possible rather than being sent to landfill or incinerated. If being sent to landfill, any residual product must be allowed to dry/cure before disposal. As containers will contain isocyanate residue, they should not be cut by a grinder, drilled or exposed to heat, flames or other sources of ignition.

SECTION 14 – TRANSPORT INFORMATION

This product is not regulated for land, sea or air transportation.

14.1 LAND (ADG Code):

UN NUMBER:	Not applicable
UN PROPER SHIPPING NAME:	Not applicable
TRANSPORT HAZARD CLASS(ES):	Not applicable
PACKAGING GROUP:	Not applicable
ENVIRONMENTAL HAZARDS:	Not applicable
SPECIAL PRECAUTIONS FOR USER:	Not applicable
HAZCHEM CODE:	Not applicable

14.2 SEA (IMDG):

UN NUMBER:	Not applicable
UN PROPER SHIPPING NAME:	Not applicable
TRANSPORT HAZARD CLASS(ES):	Not applicable
PACKAGING GROUP:	Not applicable
ENVIRONMENTAL HAZARDS:	Not applicable
SPECIAL PRECAUTIONS FOR USER:	Not applicable

14.3 AIR (IATA):

UN NUMBER:	Not applicable
UN PROPER SHIPPING NAME:	Not applicable
TRANSPORT HAZARD CLASS(ES):	Not applicable
PACKAGING GROUP:	Not applicable
ENVIRONMENTAL HAZARDS:	Not applicable
SPECIAL PRECAUTIONS FOR USER:	Not applicable

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SECTION 15 – REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS:

APPLICABLE REGULATIONS:

SUSMP:	Not scheduled, for professional use only.
AIIC:	All ingredients are on the AIIC List.
MONTREAL PROTOCOL:	Not applicable.
STOCKHOLM CONVENTION:	Not applicable.
ROTTERDAM CONVENTION:	Not applicable.
BASEL CONVENTION:	Not applicable.
INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS (MARPOL):	Not applicable.

OTHER REGULATORY INFORMATION:

GHS CLASSIFICATION HAZARD CLASS & CATEGORY AND HAZARD STATEMENT:

Sensitisation - Skin Category 1;	H317 - May cause an allergic skin reaction.
Eye Damage/Irritation Category 2A;	H319 - Causes serious eye irritation.
Acute Toxicity - Inhalation Category 4;	H332 - Harmful if inhaled.
Specific Target Organ Toxicity (Single Exposure) Category 3;	H335 - May cause respiratory irritation.
Chronic Aquatic Toxicity Category 3;	H412 - Harmful to aquatic life with long lasting effects.

SECTION 16 – ANY OTHER RELEVANT INFORMATION

SDS INFORMATION:

Date of SDS Preparation: 1st June 2021

Revision: 0.0

REVISION CHANGES: Initial preparation of SDS.

ACRONYMS:

SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
CAS Number	Chemical Abstracts Service Registry Number
EINECS	European Inventory of Existing Commercial Chemical Substances
UN Number	United Nations Number
OSHA	Occupational Safety and Health Administration
ACGIH	American Conference of Governmental Industrial Hygienists
HSE-WEL	Health and Safety Executive - Workplace Exposure Limit
EH40	EH40/2005 Workplace Exposure Limits
IMDG	International Maritime Dangerous Goods
IATA	International Air Transport Association
IUCLID	International Uniform Chemical Information Database
RTECS	Registry of Toxic Effects of Chemical Substances
%W/W	Percent weight for weight
OECD	Organisation for Economic Co-Operation and Development
ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail
HAZCHEM Code	Emergency action code of numbers and letters which gives information to emergency services
NOHSC	National Occupational Health and Safety Commission
AICIS	Australian Industrial Chemicals Introduction Scheme
IMAP	Inventory Multi-Tiered Assessment and Prioritisation
AIIC	Australian Inventory of Industrial Chemicals
TWA	Time-Weighted Average
STEL	Short Term Exposure Limit
HSNO	Hazardous Substances and New Organisms Act 1996
GHS	Globally Harmonised System of Classification and Labelling of Chemicals

SAFETY DATA SHEET

SECTION 16 – ANY OTHER RELEVANT INFORMATION Continued

ACRONYMS (Continued):

WHS	Work Health and Safety
PPE	Personal Protective Equipment
LD ₅₀	Median Lethal Dose
LC ₅₀	Median Lethal Concentration
EC ₅₀	Effective Concentration of a substance that causes 50% of the maximum response after exposure for a nominated time
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
ECHA	European Chemicals Agency
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
HCIS	Hazardous Chemical Information System
PBT	Persistent, Bioaccumulative and Toxic
vPvP	Very Persistent and Very Bioaccumulative

LITERATURE REFERENCES AND SOURCES OF DATA:

AS4081-1993: The Storage, Handling and Transport of Liquid and Liquefied Polyfunctional Isocyanates
OECD Guidelines for Testing of Chemicals
Annex I: OECD Test Guidelines for Studies Included in SIDS
Manual for the Assessment of Chemicals Chapter 2 Data Gathering
International Toxicity Testing Guidelines
Hazardous Chemical Information System (HCIS) - Guidance Material for Hazard Classifications
Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.
Model Work Health and Safety Regulations.
Model Work Health and Safety Regulations - Transitional Principles
Workplace Exposure Standards for Airborne Contaminants
Australian Dangerous Goods Code 7th Edition
Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004)]
Guidance on the Classification of Hazardous Chemicals under the WHS Regulations
Assigning a Hazardous Substance to a Group Standard
User Guide to the HSNO Thresholds and Classifications
Summary User Guide to the HSNO Thresholds and Classifications of Hazardous Substances
Correlation between GHS and New Zealand HSNO Hazard Classes and Categories
HSNO Control Regulations
Record of Group Standard Assignment
Labelling of Hazardous Substances Hazard and Precautionary Information
Thresholds and Classifications Under the Hazardous Substances and New Organisms Act 1996
Workplace Exposure Standards and Biological Exposure Indices

All information contained in this Safety Data Sheet and the health, safety and environmental information are considered to be accurate to the best of our knowledge as of the issue date specified above. The information presented here within, is based upon the product information supplied by the manufacturer. However, no warranty or representation, expressed or implied, is made as to the accuracy or completeness of the data and information contained in this data sheet.

Health and safety precautions and environmental advice noted in this data sheet may not be accurate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The Company accepts no responsibility for any injury, loss or damage, resulting from abnormal use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material.