

Material Safety Data Sheet

SECTION 1 - IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Chemical Nature: Polyaspartic resin.
Trade Name: CONPELL PA100 Resin
Product Use: Resin component for two-part polyaspartic coating.
Product Code: CPPA100
Creation Date: May 2022
This version issued: May 2022 and is valid for 5 years from this date.
Poisons Information Centre: Phone 13 1126 from anywhere in Australia

SUPPLIER CONTACT INFORMATION:

Name: CONPELL Pty. Ltd.
Address: Unti 4/2 Elderslie Road, Yatala.
Telephone: 61.1300 966 118
Website: www.conpell.com
Email: info@conpell.com
Emergency: 0433 400 220 (24 hours, 7 days a week)

SECTION 2 - HAZARDS IDENTIFICATION

Statement of Hazardous Nature

GHS Classification:
 Sensitization of the skin, Category 1 (H317)
 Chronically hazardous to the aquatic environment, Category 3 (H412)

GHS-Labeling

Warning
 Hazardous components which must be listed on the label
 bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl)methane

Hazard statements:

H317 May cause an allergic skin reaction.
 H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P312 Call a POISON CENTER or doctor/ physician if you feel unwell.
 P370 Advice for fire-fighters
 P378 Suitable extinguishing media: Carbon dioxide (CO2), Foam, extinguishing powder. In cases of larger fires, water spray should be used. Don't use high volume water jet.
 P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
 P501 Dispose of contents/ container to an approved waste disposal plant.
 . Seal and label product waste and contaminated empty containers and provide for suitable disposal under observation of the national official regulations.

HAZARDOUS according to the criteria of NOHSC NON-DANGEROUS GOODS

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS No	Conc, %	TWA (mg/m ³)	STEL (mg/m ³)
bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl)methane	136210-32-7	10-30%	not set	not set

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tetraethyl N, N'-(methylenedicyclohexane -4,1-diyl)bis-DL-aspartate	136210-30.5	30-60%	not set	not set
Other ingredients said to be not hazardous or below Concentration cutoff levels		to 100	not set	not set

CLASSIFICATION OF HAZARDOUS INGREDIENTS

Concentration [wt.-%]: ca. 5 EC-No.: 210-819-7

CAS-No.: 623-91-6

GHS Classification: Acute Tox. 4 Oral H302 Skin Irrit. 2 H315 Skin Sens. 1 H317 STOT SE 3 H335

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5-day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equaled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

SECTION 4 - FIRST AID MEASURES

General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned, or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

Inhalation: No first aid measures normally required. However, if inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.

Skin Contact: Quickly and gently blot away excess liquid. Wash gently and thoroughly with warm water (use non-abrasive soap if necessary) for 10-20 minutes or until product is removed. Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands and belts) and completely decontaminate them before reuse or discard. If irritation persists, repeat flushing and seek medical attention.

Eye Contact: Quickly and gently blot material from eyes. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

Ingestion: If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poisons Information Centre, or call a doctor.

SECTION 5 - FIRE FIGHTING MEASURES

Fire and Explosion Hazards: The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

Extinguishing Media: In case of fire, use carbon dioxide, dry chemical, foam, dry sand.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade.

Flash point: Not flammable.

Upper Flammability Limit: No data.

Lower Flammability Limit: No data.

Autoignition temperature: No data.

Flammability Class: No data.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

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Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. Wear full protective clothing including eye/face protection. All skin areas should be covered. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include neoprene, butyl rubber. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned below (section 8). Otherwise, not normally necessary.

Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

SECTION 7 - HANDLING AND STORAGE

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Make sure that containers of this product are kept tightly closed. Keep containers dry and away from water. Keep containers of this product in a cool (15-30°C) well ventilated area. Protect this product from light. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Some liquid preparations settle or separate on standing and may require stirring before use. Check packaging - there may be further storage instructions on the label.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

SWA Exposure Limits	TWA (mg/m ³)	STEL (mg/m ³)
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Exposure limits have not been established by SWA for any of the significant ingredients in this product.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

Ventilation: This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

Eye Protection: Protective glasses or goggles should be worn when this product is being used. Failure to protect your eyes may cause them harm. Emergency eye wash facilities are also recommended in an area close to where this product is being used.

Skin Protection: If you believe you may have a sensitisation to this product or any of its declared ingredients, you should prevent skin contact by wearing impervious gloves, clothes and, preferably, apron. Make sure that all skin areas are covered. See below for suitable material types.

Protective Material Types: We suggest that protective clothing be made from the following materials: neoprene, butyl rubber.

Respirator: Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above. Otherwise, not normally necessary.

Eyebaths or eyewash stations and safety deluge showers should, if practical, be provided near to where this product is being handled commercially.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES:

Physical Description & colour:	Clear homogeneous liquid.
Odour:	Characteristic odour.
Boiling Point:	100°C @ 100kPa
Freezing/Melting Point:	About 0°C
Volatiles:	No data.

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Vapour Pressure:	No data.
Vapour Density:	No data.
Specific Gravity:	No data.
Water Solubility:	Insoluble.
pH:	No data
Volatility:	No data.
Odour Threshold:	No data.
Evaporation Rate:	No data.
Coeff Oil/water Distribution:	No data
Viscosity:	Approximately 500 cps
Autoignition temp:	No data.

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

Conditions to Avoid: Keep containers tightly closed. Containers should be kept dry. Keep containers and surrounding areas well ventilated. Protect this product from light.

Incompatibilities: oxidising agents.

Fire Decomposition: Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. May form hydrogen chloride gas, other compounds of chlorine. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

Polymerisation: Polymerisation reactions are unlikely; they are not expected to occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute toxicity, oral

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate LD50 rat: > 2.000 mg/kg

Method: Directive 67/548/EEC, Annex V, B.1. Toxicological studies of a comparable product.

Acute toxicity, dermal

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate LD50 rat: > 2.000 mg/kg

Toxicological studies of a comparable product.

Acute toxicity, inhalation

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate LC50 rat, male/female: > 4,224 mg/l, 4 h

Test atmosphere: dust/mist Method: OECD Test Guideline 403

Toxicological studies of a comparable product.

Assessment: The substance or mixture has no acute inhalation toxicity

Primary skin irritation

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate Species: rabbit

Result: slight irritant Classification: No skin irritation

Method: OECD Test Guideline 404 Toxicological studies of a comparable product.

Primary mucosae irritation

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate Species: rabbit

Result: slight irritant Classification: No eye irritation

Method: OECD Test Guideline 405 Toxicological studies of a comparable product.

Effect on the respiratory tract:

Result: slight irritant

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Toxicological studies of a comparable product.

Sensitisation

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate Skin sensitisation according to Magnusson/Kligmann (maximizing test): Species: Guinea pig

Result: positive

Classification: May cause sensitization by skin contact (Sub cat. 1B) Method: OECD Test Guideline 406

Toxicological studies of a comparable product. Respiratory sensitization

Toxicological studies on the product are not yet available.

Subacute, subchronic and prolonged toxicity

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate NOAEL: 1.000 mg/kg

Application Route: Subacute oral toxicity Species: rat

Dose Levels: 0 - 40 - 200 - 1.000 mg/kg Method: OECD Test Guideline 407 Toxicological studies of a comparable product.

Carcinogenicity

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate Toxicological studies on the product are not yet available.

Reproductive toxicity/Fertility

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate NOAEL (parents, generally toxicity): 200 mg/kg

NOAEL (parents, fertility): 1.000 mg/kg NOAEL (offspring): 1.000 mg/kg

Test type: Two-generation study Species: rat, male/female Application Route: Oral

Dose Levels: 0 - 40 - 200 - 1000 mg/kg Method: OECD Test Guideline 416 Toxicological studies of a comparable product.

Reproductive toxicity/Teratogenicity

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate NOAEL (teratogenicity): 1.000 mg/kg

NOAEL (maternal): 1.000 mg/kg

NOAEL (developmental toxicity): 1.000 mg/kg

Species: rat, female

Application Route: Oral

Dose Levels: 0 - 100 - 300 - 1000 mg/kg

Method: OECD Test Guideline 414

Studies of a comparable product.

Genotoxicity in vitro

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate

Test type: Salmonella/microsome test (Ames test)

Result: No indication of mutagenic effects.

Method: OECD Test Guideline 471

Toxicological studies of a comparable product.

Test type: Chromosome aberration test in vitro

Result: negative

Method: OECD Test Guideline 473

Toxicological studies of a comparable product.

Genotoxicity in vivo

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate

Test type: Micronucleus test

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Species: Mouse

Result: negative

Method: OECD Test Guideline 474

Toxicological studies of a comparable product.

STOT evaluation – one-time exposure

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate

Based on available data, the classification criteria are not met.

STOT evaluation – repeated exposure

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate

Based on available data, the classification criteria are not met.

Aspiration toxicity

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate

Based on available data, the classification criteria are not met.

CMR Assessment

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate

Carcinogenicity: Based on available data, the classification criteria are not met.

Mutagenicity: In vitro and in vivo tests did not show mutagenic effects. On the basis of this data, the substance is not classified as mutagenic.

Teratogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity/Fertility: Based on available data, the classification criteria are not met.

Toxicology Assessment

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate

Acute effects: Based on available data, the classification criteria are not met.

Sensitization: May cause sensitization by skin contact.

Repeated dose toxicity: Based on available data, the classification criteria are not met.

SECTION 12 - ECOLOGICAL INFORMATION

Do not allow to escape into waterways, wastewater or soil.

Acute Fish toxicity

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate LC50 66 mg/l

Species: Danio rerio (zebra fish) Exposure duration: 96 h

Method: OECD Test Guideline 203

Ecotoxicological reports on a comparable product

Acute toxicity for daphnia

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate

EC50 88,6 mg/l

Species: Daphnia magna (Water flea)

Exposure duration: 48 h

Method: Proposal from the German UBA May 1984

Studies of a comparable product.

Chronic toxicity to daphnia

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate

NOEC (Reproduction) 0,01 mg/l

Species: Daphnia magna (Water flea)

Exposure duration: 21 d

Method: Directive 67/548/EEC, Annex V, C.20.

Studies of a comparable product.

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Acute toxicity for algae

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate

ErC50 113 mg/l

Species: scenedesmus subspicatus

Exposure duration: 72 h

Method: Directive 67/548/EEC, Annex V, C.3.

Ecotoxicological reports on a comparable product

Acute bacterial toxicity

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate

EC50 3.110 mg/l

Species: activated sludge

Exposure duration: 3 h

Method: ISO test method 8192-1986 E

Ecotoxicological reports on a comparable product

Toxicity to soil dwelling organisms

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate

NOEC (mortality) \geq 1.000 mg/kg

Species: Eisenia fetida (earthworms)

Exposure duration: 14 d

Method: OECD Test Guideline 207

Studies of a comparable product.

Toxicity to terrestrial plants

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate

NOEC (seedling emergence) \geq 100 mg/kg

Species: Allium cepa (onion)

Test period: 14 d

Method: OECD Test Guideline 208

Studies of a comparable product.

NOEC (seedling emergence) \geq 100 mg/kg

Species: Avena sativa (oats)

Test period: 14 d

Method: OECD Test Guideline 208

Studies of a comparable product.

NOEC (seedling emergence) \geq 100 mg/kg

Species: Brassica napus (rape)

Test period: 14 d

Method: OECD Test Guideline 208

Studies of a comparable product.

Ecotoxicology Assessment

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate

Acute aquatic toxicity: Harmful to aquatic life.

Chronic aquatic toxicity: Very toxic to aquatic life with long lasting effects.

Impact on Sewage Treatment: Because of the low bacterial toxicity, there is no risk of an adverse effect on the performance of biological waste water treatment plants.

12.2 Persistence and degradability

Biodegradability

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate

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Biodegradation: 13 %, 28 d, i.e. not readily degradable

Method: OECD Test Guideline 301 F

Ecotoxicological reports on a comparable product

Biodegradation: 0 %, 28 d, i.e. not inherently degradable

Method: OECD Test Guideline 302 C

Ecotoxicological studies of the product

Stability in water

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate

Half life: 655 h at 25 °C (pH: 4)

Method: OECD Test Guideline 111

Studies of a comparable product.

Half life: 25,4 h at 25 °C (pH: 7)

Method: OECD Test Guideline 111

Studies of a comparable product.

Half life: 16,8 h at 25 °C (pH: 9)

Method: OECD Test Guideline 111

Studies of a comparable product.

Volatility (Henry's Law constant)

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate

Calculated value = 0,01 Pa*m³/mol

The substance has to be scored as non-volatile from water.

12.3 Bioaccumulative potential

Bioaccumulation

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate

Bioconcentration factor (BCF): 1.872

Species: value calculated

The substance hydrolyzes rapidly in water.

An accumulation in aquatic organisms is not to be expected.

Partition coefficient (n-octanol/water)

log Pow: ca. 5,16 at: 20 °C (value calculated)

12.4 Mobility in soil

Distribution among environmental compartments

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate

Adsorption/Soil

log Koc value: 4,2 - 5,1

Method: EU Method C.19

Studies of a comparable product.

Surface tension

ca. 63,9 mN/m at 20 °C

Method: OECD Test Guideline 115

12.5 Results of PBT and vPvB assessment

No data available.

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12.6 Other adverse effects

No data available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Dispose in accordance with applicable international, national and local laws, ordinances and statutes. For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used.

13.1 Waste treatment methods

After containers have been emptied as thoroughly as possible (e.g. by pouring, scraping or draining until "drip-dry"), they can be sent to an appropriate collection point set up within the framework of the existing take-back scheme of the chemical industry. Containers must be recycled in compliance with national legislation and environmental regulations.

None disposal into waste water.

SECTION 14 - TRANSPORT INFORMATION

UN Number: This product is not classified as a Dangerous Good by ADG, IATA or IMDG/IMSBC criteria. No special transport conditions are necessary unless required by other regulations.

SECTION 15 - REGULATORY INFORMATION

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations.

SECTION 16 - OTHER INFORMATION

This SDS contains only safety-related information. For other data see product literature.

Acronyms:

ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail (7 th edition)
AICS	Australian Inventory of Chemical Substances
SWA	Safe Work Australia, formerly ASCC and NOHSC
CAS number	Chemical Abstracts Service Registry Number
Hazchem Code	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
IARC	International Agency for Research on Cancer
NOS	Not otherwise specified
NTP	National Toxicology Program (USA)
R-Phrase	Risk Phrase
SUSMP	Standard for the Uniform Scheduling of Medicines & Poisons
UN Number	United Nations Number

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS

OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (December 2011)