

Safety Data Sheet

according to WHS Regulations

Printing date 25.01.2021

Revision: 25.01.2021

1 Identification

Product Name: SOL-RES 01 HARDENER

Other Means of Identification: Mixture

Recommended Use of the Chemical and Restriction on Use: Hardener

Details of Manufacturer or Importer:

Blue Zone Group
21 Huntingdale Drive,
Thornton, NSW, 2322

Phone Number: 02 4964 3500

Emergency telephone number: National Poisons Information Centre: 13 11 26

2 Hazard(s) Identification

Hazardous Nature:

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)



skull and crossbones

Acute Toxicity (Inhalation) 2 H330 Fatal if inhaled.



health hazard

Respiratory Sensitisation 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Carcinogenicity 2 H351 Suspected of causing cancer.

STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.



Skin Corrosion/Irritation 2 H315 Causes skin irritation.

Serious Eye Damage/Irritation 2A H319 Causes serious eye irritation.

Skin Sensitisation 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

Signal Word Danger

Hazard Statements

H330 Fatal if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H335 May cause respiratory irritation.

H372 Causes damage to organs through prolonged or repeated exposure.

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Precautionary Statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P284	[In case of inadequate ventilation] wear respiratory protection.
P302+P352	IF ON SKIN: Wash with plenty of 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.
P310	Immediately call a POISON CENTER/doctor.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P320	Specific treatment is urgent (see on this label).
P314	Get medical advice/attention if you feel unwell.
P362+P364	Take off contaminated clothing and wash it before reuse.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national regulations.

3 Composition and Information on Ingredients

Chemical Characterization: Mixtures**Description:** Mixture of substances listed below with nonhazardous additions.**Hazardous Components:**

CAS: 26447-40-5	Methylenediphenyl diisocyanate	70 - 90%
	<div> <div> <div></div> <div>Acute Toxicity (Inhalation) 2, H330;</div> </div> <div> <div></div> <div>Respiratory Sensitisation 1, H334;</div> </div> <div> <div></div> <div>Carcinogenicity 2, H351; STOT RE 1, H372;</div> </div> <div> <div></div> <div>Skin Corrosion/Irritation 2, H315;</div> </div> <div> <div></div> <div>Serious Eye Damage/Irritation 2A, H319; Skin Sensitisation 1, H317; STOT SE 3, H335</div> </div> </div>	
CAS: 9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester	10 - 30%
	<div> <div> <div></div> <div>Acute Toxicity (Inhalation) 2, H330;</div> </div> <div> <div></div> <div>Respiratory Sensitisation 1, H334;</div> </div> <div> <div></div> <div>Carcinogenicity 2, H351; STOT RE 1, H372;</div> </div> <div> <div></div> <div>Skin Corrosion/Irritation 2, H315;</div> </div> <div> <div></div> <div>Serious Eye Damage/Irritation 2A, H319; Skin Sensitisation 1, H317; STOT SE 3, H335</div> </div> </div>	

4 First Aid Measures

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek immediate medical attention if breathing problems develop.

Skin Contact:

In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if symptoms occur.

Eye Contact:

In case of eye contact, hold eyelids open and rinse with water for at least 15 minutes. Seek medical attention.

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Ingestion:

If swallowed, do not induce vomiting. Do not give anything by mouth to an unconscious person. Seek immediate medical attention.

Symptoms Caused by Exposure:

Inhalation: Fatal if inhaled. May cause respiratory irritation, coughing and tightness in the chest. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin Contact: Causes skin irritation. May cause an allergic skin reaction.

Eye Contact: Causes serious eye irritation. May cause redness and lachrymation.

Ingestion: May cause irritation and redness to mouth and throat.

5 Fire Fighting Measures

Suitable Extinguishing Media:

Alcohol-resistant foam, dry chemical powder or carbon dioxide. Do not use water spray.

Specific Hazards Arising from the Chemical:

Hazardous combustion products include toxic fumes.

Product is not flammable but may burn or decompose in a fire.

Closed containers may explode when exposed to extreme heat. Containers close to fire should be removed if safe to do so. Use water spray to cool fire exposed containers.

Minimise firefighting run off from entering drains or water courses.

Special Protective Equipment and Precautions for Fire Fighters:

When fighting a major fire wear self-contained breathing apparatus and protective equipment.

6 Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures:

Wear approved respiratory protection, chemical resistant gloves, protective clothing and safety boots.

Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation.

Do not touch or walk through spilled material.

Environmental Precautions:

In the event of a major spill, prevent spillage from entering drains or water courses.

Methods and Materials for Containment and Cleaning Up:

Stop leak if safe to do so and absorb spill with sand, earth, vermiculite or some other absorbent material.

Collect the spilled material and place into a suitable container for disposal.

7 Handling and Storage

Precautions for Safe Handling:

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours.

Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

Conditions for Safe Storage:

Store in a cool, dry and well ventilated area. Keep in original container tightly closed when not in use. Protect from direct sunlight, high humidity, heat, sparks, open flames and hot surfaces. Keep away from water, alcohols, amines, acids and bases.

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8 Exposure Controls and Personal Protection

Exposure Standards:**CAS: 26447-40-5 Methylenediphenyl diisocyanate**

NES STEL: 0.07 mg/m³
TWA: 0.02 mg/m³
Sen, as -NCO

CAS: 9016-87-9 Isocyanic acid, polymethylenepolyphenylene ester

NES STEL: 0.07 mg/m³
TWA: 0.02 mg/m³
Sen, as -NCO

Engineering Controls:

Total enclosure with good general ventilation is recommended when isocyanates are used.

If total enclosure is not possible, local exhaust ventilation is recommended when vapours can be released in excess of established airborne exposure limits. Where local exhaust ventilation is installed, exhaust vapours should not be vented to the exterior in such a manner as to create a hazard.

Respiratory Protection:

When vapours approach the exposure standards then the use of a half-face organic vapour respirator with dust/mist filter is recommended.

When vapours exceed the exposure standards, the use of an positive pressure demand self-contained or airline breathing apparatus is recommended. Filter capacity and respirator type depends on exposure levels. If entering spaces where the airborne concentration of a contaminant is unknown then the use of a self-contained breathing apparatus (SCBA) with positive pressure air supply is recommended.

See Australian Standards AS/NZS 1715 and 1716 for more information.

Skin Protection:

PVC, PVA, nitrile, neoprene, rubber or vinyl gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information.

When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered.

Occupational protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard AS/NZS 4501 for more information.

Eye and Face Protection:

Eye and face protectors for protection against splashing materials or liquids. See Australian/New Zealand Standard AS/NZS 1337 for more information.

9 Physical and Chemical Properties

Appearance:**Form:**

Liquid

Colour:

Brown

Odour:

Characteristic

Odour Threshold:

No information available

pH-Value:

No information available

Melting point/freezing point:

No information available

Initial Boiling Point/Boiling Range:

No information available

Flash Point:

> 200 °C

Flammability:

Product is not flammable

Auto-ignition Temperature:

No information available

Decomposition Temperature:

No information available

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Explosion Limits:**Lower:**

No information available

Upper:

No information available

Vapour Pressure:

No information available

Relative Density:

1.24

Vapour Density:

No information available

Evaporation Rate:

No information available

Solubility in Water:

Reacts with water

Partition Coefficient (n-octanol/water): No information available**Viscosity:**

Non viscous

10 Stability and Reactivity

Possibility of Hazardous Reactions: Hazardous polymerisation will not occur.**Chemical Stability:** Stable at ambient temperature and under normal conditions of storage and use.**Conditions to Avoid:** Heat, sparks, open flames, hot surfaces, direct sunlight and high humidity.**Incompatible Materials:** Water, alcohols, amines, acids and bases.**Hazardous Decomposition Products:** Hazardous combustion products include toxic fumes.

11 Toxicological Information

Toxicity:**LD50/LC50 Values Relevant for Classification:****CAS: 26447-40-5 Methylenediphenyl diisocyanate**

Oral	LD50	49 g/kg (rat)
Dermal	LD50	>9400 mg/kg (rabbit)

CAS: 9016-87-9 Isocyanic acid, polymethylenepolyphenylene ester

Oral	LD50	49 mg/kg (rat)
Dermal	LD50	>9,400 mg/kg (rabbit)
Inhalation	L50/4 h	490 mg/m ³ (rat)

Acute Health Effects**Inhalation:**

Fatal if inhaled. May cause respiratory irritation, coughing and tightness in the chest. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin: Causes skin irritation. May cause an allergic skin reaction.**Eye:** Causes serious eye irritation. May cause redness and lachrymation.**Ingestion:** May cause irritation and redness to mouth and throat.**Skin Corrosion / Irritation:** Causes skin irritation.**Serious Eye Damage / Irritation:** Causes serious eye irritation.**Respiratory or Skin Sensitisation:**

May cause an allergic skin reaction.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Germ Cell Mutagenicity: Based on classification principles, the classification criteria are not met.**Carcinogenicity:**

Suspected of causing cancer.

Polymethylene polyphenyl isocyanate is classified by IARC as Group 3 - Not classifiable as to its carcinogenicity to humans.

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Reproductive Toxicity: Based on classification principles, the classification criteria are not met.**Specific Target Organ Toxicity (STOT) - Single Exposure:** May cause respiratory irritation.**Specific Target Organ Toxicity (STOT) - Repeated Exposure:**

Causes damage to organs through prolonged or repeated exposure through inhalation.

Aspiration Hazard: Based on classification principles, the classification criteria are not met.**Chronic Health Effects:** No information available**Existing Conditions Aggravated by Exposure:** No information available

12 Ecological Information

Ecotoxicity: No data available on finished product.**Aquatic toxicity:** No data available on finished product.**Persistence and Degradability:** Not readily biodegradable.**Bioaccumulative Potential:** Bioaccumulation is not expected to occur.**Mobility in Soil:** The product only slowly absorbs into soil.**Other adverse effects:** No information available

13 Disposal Considerations

Disposal Methods and Containers: Dispose according to applicable local and state government regulations.**Special Precautions for Landfill or Incineration:**

Please consult your state Land Waste Management Authority for more information.

14 Transport Information

UN Number Not regulated**Proper Shipping Name** Not regulated**Dangerous Goods Class** Not regulated**Packing Group:** Not regulated

15 Regulatory Information

Australian Inventory of Industrial Chemicals:

All ingredients are listed.

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Poison Schedule:

Poisons Schedule: 6

16 Other Information

Date of Preparation or Last Revision: 25.01.2021**Prepared by:** MSDS.COM.AU Pty Ltdwww.msds.com.au**Abbreviations and acronyms:**

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

IARC: International Agency for Research on Cancer

STEL: Short Term Exposure Limit

TWA: Time Weighted Average

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NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)

Acute Toxicity (Inhalation) 2: Acute toxicity - inhalation – Category 2

Skin Corrosion/Irritation 2: Skin corrosion/irritation – Category 2

Serious Eye Damage/Irritation 2A: Serious eye damage/eye irritation – Category 2A

Respiratory Sensitisation 1: Respiratory sensitisation, Hazard Category 1

Skin Sensitisation 1: Skin sensitisation, Hazard Category 1

Carcinogenicity 2: Carcinogenicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

Data altered compared to the previous version:

Section 4: Symptoms Caused by Exposure; Section 5: Specific Hazards Arising from the Chemical; Section 6: Accidental Release Measures; Section 10: Stability and Reactivity; Section 11: Toxicological Information; Section 12: Ecological Information.

Disclaimer

This SDS is prepared in accord with the Safe Work Australia document “Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - July 2020”

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