

DeepSeal 50

Safety Data Sheet

1. IDENTIFICATION

Supplier: Know-How Concrete Technologies
ABN: 15 086 008 068
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Telephone: (07) 3274 1000
National Poisons Information Centre (For Emergency): (+61) 131 126 (24 hours)
Fax: (07) 3274 1006
Web Page: www.knowhowconcrete.com.au

Product Name: DeepSeal 50
Other Names: Dimethyl Benzene, Xylenes (Mixed Isomers)
Chemical Family: Aromatic Hydrocarbon Solvent
Recommended Use: Industrial Solvent, coatings ingredient, thinner component

2. HAZARDS IDENTIFICATION

Health Hazard Classification: This product is classified as hazardous under SafeWork Australia.
Hazard Category: XN: Harmful.
Risk Phrases: R 10: Flammable.
 R 20/21: Harmful by inhalation and in contact with skin.
 R 37/38: Irritating to respiratory system and skin.
 R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in aquatic environment.
Safety Phrases: S 1: Keep out of reach of children.
 S 16: Keep away from sources of ignition.
 S 23: do not breathe gas, fumes, vapour or spray.
 S 24/25: Avoid contact with skin and eyes.
 S 29: Do not empty into drains.
 S 36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
 S 38 In case of insufficient ventilation, wear suitable respiratory equipment.
 S 60: This material and its container must be disposed of as hazardous waste.

Dangerous Goods Classification: 3

Poison Schedule: 6

Pictogram:



Pictogram Description: Flammable

3. COMPOSITION: Information on Ingredients

Chemical Ingredient	CAS No.	Proportion (%v/v)
Xylene	1330-20-7	50 < 70
Contains: Ethylbenzene	100-41-4	Up to 30
Solvent naphtha (petroleum) light aromatic	6472-95-6	5 < 15
Alkyl Silicone Resin with Methoxy Groups	CAS-ON_AICS	2 < 12
Trinethoxy	34396-03-7	< 2
Di-n-Butyl Tin Dilurate	77-58-7	<1%
Methanol (released by hydrolysis)	67-56-1	<1%

4. FIRST AID MEASURES

For advice, contact Poisons Information Centre (Phone Australia: 131 126) or a doctor.

Ingestion

If swallowed, DO NOT induce vomiting. Keep at rest. Wash out mouth with water. Seek immediate medical attention.

Eye Contact

If in eyes, hold eyelids apart and Flush eyes continuously with running water until advised to stop by the poisons information centre or doctor, or for at least 15 minutes. If irritation develops seek medical attention.

Skin Contact

Flush area with large amounts of water and wash area with soap if available. Remove contaminated clothing, including shoes, and launder before reuse. Seek medical attention for skin irritations

Inhalation

Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Seek immediate medical attention.

First Aid Facilities

Eye wash fountains and general washing facility should be easily accessible in the immediate work area.

Medical Attention

Treat according to symptoms. Avoid gastric lavage; risk of aspiration of product to the lungs with the potential to cause chemical pneumonitis. Poisons Information Centre in each Australian State Capital city can provide additional assistance for scheduled poisons.

5. FIRE FIGHTING MEASURES

Shut off product that may 'Fuel' a fire if safe to do so. Allow trained personnel to attend a fire in progress, providing firefighters with this Material Safety Data Sheet. Prevent extinguishing media from escaping to drains and waterways.

Suitable extinguishing media

Dry chemical or foam. Alcohol resistant foam is preferred, if not available normal foam can be used.

Hazardous from combustion products

Under fire conditions this product may emit Carbon monoxide, carbon dioxide, other organic compounds solid, liquid and gas

Precautions for fire fighters and special protective equipment

Full protective clothing to prevent exposure to vapours of fumes and self-contained breathing apparatus operated in positive pressure mode. Water spray may be used to cool down heat-exposed containers.

Specific Hazards

Flammable liquid and vapour. Vapour / air mixtures may ignite explosively. Flashback along the vapour trail may occur. Runoff to sewer may create fire or explosion.

Hazchem Code

3Y

6. ACCIDENTAL RELEASE MEASURES**Emergency Procedures**

Prevent fluid from escaping to drains and waterways. Contain leaking packaging in a containment drum. Prevent vapours from building up in confined areas. Ensure that drain valves are closed at all times. Clean up and report spills immediately.

Methods and materials for containment**Major Land Spill**

- Eliminate sources of ignition.
- Warn occupants of downwind areas of possible fire and explosion hazard.
- Prevent liquid from entering sewers, watercourses, or low-lying areas.
- Keep the public away from the area.
- Shut off the source of the spill if possible and safe to do so.
- Advise authorities if substance has entered a watercourse or sewer or has contaminated soil or vegetation
- Take measures to minimise the effect on the ground water.

7. ACCIDENTAL RELEASE MEASURES (Continued)

- Contain the spilled liquid with sand or earth
- Recover by pumping – use explosion proof pump or hand pump – or with a suitable absorbent material
- Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.
- See “First Aid Measures” and “Stability and Reactivity”.

Major Water Spill

- Eliminate any sources of ignition.
- Warn occupants and shipping in downwind areas of possible fire and explosion hazard.
- Notify the port of relevant authority and keep the public away from the area.
- Shut off the source of the spill if possible and safe to do so.
- Confine the spill if possible.
- Remove the product from the surface by skimming or with suitable absorbent material.
- Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.
- See “First Aid Measures” and “Stability and Reactivity”.

8. HANDLING AND STORAGE**Precautions for safe handling**

This product is flammable. Do not open near open flame, sources of heat or ignition. No smoking. Keep container closed. Handle containers with care. Open slowly to control possible pressure release. Material will accumulate static charge. Use grounding leads to avoid discharge (electrical spark).

Conditions for safe storage

Store in a cool, dry place away from direct sunlight. Do not pressurise, cut, heat or weld containers- residual vapours are combustible. This product will fuel a fire in progress. Have appropriate fire extinguishers

Incompatible materials

Natural rubbers, neoprene, butyl and, or nitrile rubbers.

9. EXPOSURE CONTROLS : PERSONAL PROTECTION**National Exposure Standards**

Ethyl Benzene - Time weighted average concentration (TWA) for this product is: 350 mg/m³ (80 ppm). Short-term exposure limit (STEL) is: 543 mg/m³ (125 ppm)

Xylene - Time weighted average concentration (TWA) for this product is: 350 mg/m³ (80 ppm). Short-term exposure limit (STEL) is: 655 mg/m³ (150 ppm)

Solvent Naphtha (Petroleum), light aromatic- Time weighted average concentration (TWA) for this product is: 5 mg/m³.

Methanol – Time weighted average concentration (TWA) for this product is: 262mg/ m³ (200ppm). Short-term exposure limit (STEL) is: 382mg/ m³ (250ppm)

Biological Limit Values

Xylene - BEI: Biological Exposure Index – 1.5 g/g creatinine at end of shift.

Ethylbenzene - BEI: Biological Exposure Index – 0.7g/g creatinine at end of shift.

Engineering Controls: Ventilation

The use of local exhaust ventilation is recommended to control process emissions near the source. Laboratory samples should be handled in a fume hood. Provide mechanical ventilation of confined spaces. Use explosion – proof ventilation equipment. Refer to AS1940 – Storage and handling of flammable and combustible liquids and AS/NZS 60079.10.1:2009 Explosive atmospheres – classification of areas- explosive gas atmospheres, for further information concerning ventilation requirements.

Personal Protective Equipment

Respiratory Protection: Where concentrations in air may exceed the limits described in the National Exposure Standards, it is recommended to use a half-face filter mask to protect from overexposure by inhalation.

A type “A” filter material is considered suitable for this product.

Eye Protection: Safety glasses with side shields, full face shield or chemical goggles as appropriate should be used when handling this product.

Skin/Body Protection: Always wear long sleeves and long trousers or coveralls, and enclosed footwear or safety boots when handling this product. It is recommended that chemical resistant gloves (e.g. PVC) be worn when handling this product.

10. PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Value
Form	Liquid
Appearance	Clear, colourless liquid
Odour	Aromatic Hydrocarbon odour
Boiling Point/Range	137°C - 143°C (xylene)
Flash Point	27°C (as for Xylene)
Vapour Density @ 15°C	0.88g/ml
Vapour Pressure @ 38°C	0.8 – 1.2kPa
Explosive Limits (LEL-UEL)	1.0% – 7.1%
Vapour Density @ 20°C	3.7kpa
Auto ignition Temperature	432 - 530°C
Viscosity @ 20°C	< 9mm ² /s
Percent Volatiles	100%
Solubility with Water	0.120 Kg / m ³
Specific Gravity	0.91-0.93
Evaporation Rate	0.7 (xylene)
Flammable Limits –Lower	1.1% as for xylene 5.5% as for methanol
Flammable Limits – Upper	7.7% as for xylene 44% as for methanol

The values listed are indicative of the products physical and chemical properties. For a full product specification, please consult the Product Data Sheet.

11. STABILITY AND REACTIVITY

Chemical stability

Stable under normal conditions of Storage and Handling.

Conditions to avoid

Sources of heat and ignition, open flames. Precautions against static electricity discharges.

Hazardous decomposition products

Carbon monoxide, carbon dioxide and organic complexes on incomplete burning or oxidation.

Hazardous reactions

Mixing with strong oxidising agents causes violent reactions.

Hazardous Polymerisation

Will not occur.

12. ECOLOGICAL INFORMATION

Eco toxicity

Aquatic Toxicity

Fish Toxicity (rainbow trout, goldfish, and bluegill): LC₅₀ (96hr): No data available

Daphnia Magna EC₅₀ (24 hr): No data available

Blue-green algae (Toxicity threshold 7-8 days): LO_{EC}: >200000 µg/L

Persistence/ degradability

Readily biodegradable. Oxidises rapidly by photo –chemical reactions in air.

Mobility

If product enters soil, it will be highly mobile and may contaminate groundwater. Prevent this material entering waterways, drains and sewers

13. TOXICOLOGICAL INFORMATION

Acute Effects

Ingestion

If swallowed, may cause lung damage on vomiting. Will cause central nervous system depression. May cause discomfort on swallowing. Vapours will cause drowsiness and dizziness and ingestion may result in headaches and nausea.

Eye Contact

Eye contact with this product will cause redness and swelling with a burning sensation and blurred vision.

Skin Contact

Harmful in contact with skin. Symptoms include burning sensation, redness, swelling and possible blistering.

Inhalation

Harmful by inhalation. Vapours will cause dizziness and drowsiness. There is the possibility of organ damage over prolonged use or exposure. Central Nervous System depression includes nausea, headaches, dizziness and possibly loss consciousness.

Chronic Effects

This product may contain up to 30% of ethyl benzene. IARC has evaluated ethyl benzene and classified it as a 'possible human carcinogen' (Group 2B) based on sufficient evidence for cancer in exposed humans. This product may contain 0.1 to 1% naphthalene. IARC evaluated naphthalene and concluded that there was sufficient evidence for carcinogenicity in experimental animals, but inadequate evidence for cancer in exposed humans. Accordingly, IARC classified naphthalene as a possible human carcinogen (Group 2B)

Other Health Effects Information

Persons with pre-existing liver, kidney, and central nervous system or skin complaints should avoid unnecessary exposure to this product. Every effort to protect eyes, respiratory tract and skin exposure should be taken in these circumstances.

Toxicological Information

Oral LD₅₀: Rat: 4300 mg/kg

Dermal TC_{LO}: Rat (Inhal) LC₅₀ 5000ppm/4hr

14. DISPOSAL CONSIDERATIONS

Disposal Methods

Empty packaging should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor. Care should be taken to ensure compliance with national and local authorities. Packaging may still contain fumes and vapours that are flammable and harmful. Ensure that empty packaging is allowed to dry.

Special Precautions for Landfill or Incineration

This product is NOT suitable for disposal by either landfill or via municipal sewers, drains, natural streams or rivers. This product is ashless and can be burned directly in appropriate equipment.

15. TRANSPORTATION INFORMATION

General

This material is a Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail

Road and Rail Transport	
UN No.	1307
Proper Shipping Name	Siloxane In Aromatic Hydrocarbon
DG Class	3
Sub. Risk	None
Pack Group	III
Hazchem	3Y
IERG	14

Dangerous Goods Segregation

This Product is classed as Dangerous Goods Class 3, packing group III. Please consult the Australian Dangerous Goods Code for Transport by Road and Rail information

16. REGULATORY INFORMATION

SUSMP Poisons Schedule number S6 allocated
AICS All ingredients presented on AICS

17. OTHER INFORMATION

Acronyms and Comments

ADG Code Australian Code for the Transport of Dangerous Goods by Road and Rail.
AICS Australian Inventory of Chemical Substances.
CAS Number Chemical abstracts Service Registry Number.
HAZCHEM An emergency action code of numbers and letters which gives information to emergency services.
IERG Dangerous Goods Initial Emergency Response Guide (HB 76:2010 Standards Australia)
Safe Work Australia Safe Work Australia was formerly the Australian Safety and Compensation Council, which included the National Occupational Health and Safety Commission (NOHSC)
SDS Safety Data Sheet
STEL Exposed standard –short term exposure limit, a 15 minute TWA exposure which should not be exceeded at any time during a working day even if the eight-hour TWA average is within the TWA exposure standard. Exposures at the STEL should not be longer than 15 minutes and should not be repeated more than four times per day. There should be at least 60 minutes between successive exposures at the STEL. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.
SUSMP Standard for the Uniform Scheduling of Medicines and Poisons.
TWA Exposed standard – time –weighted average, the average airborne concentration of a particular substance when calculated over a normal eight hour working day, for a five-day working week.
UN Number United Nations Number
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Revision Information New format
Contact Point Regulatory Affairs Manager
Contact Number (07) 3274 1000
Note Safety Data Sheets are updated frequently. Please ensure that you have a current copy.
Disclaimer This SDS summarises at the date of issue our best knowledge of the health and safety hazard information of this product, and in particular how to safely handle and use this product in the workplace. Since Know-How Concrete Technologies cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this SDS in the context of how the user intends to handle and use the product in the workplace. This SDS does not represent a guarantee for the properties of the product(s) described in terms of the legal warranty regulations. If clarification or further information is needed to ensure that and appropriate assessment can be made, the user should contact this company.