

nuplex Material Safety Data Sheet**POLYPLEX SURFBOARD FINISH**

Infosafe No. 1HKBG **Version** 1.2 **ISSUED** April **Status** ISSUED
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NUPLEXIN

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name

POLYPLEX SURFBOARD FINISH

Product Code

C200064

Company Name

NUPLEX COMPOSITES a division of Nuplex Industries (Aust) Pty Ltd (ABN 25 000 045 572)

Address

49 - 61 Stephen Road, BOTANY NSW 2019

New Zealand: NUPLEX COMPOSITES a division of Nuplex Industries Limited, Level 3 Millennium Centre, 602C Great South Road Ellerslie 1051

NEW ZEALAND

Emergency Tel.

Australia: 1800 022 037 (24H)

New Zealand: 0800 154 666 (24H)

Telephone/Fax Number

Telephone: Australia: +61 (02) 9839 4000(BH); New Zealand: +64 (09) 583 6500(BH) Fax number: Australia: +61 (02) 9674 6225; New Zealand: +64 (09) 525 3709

Email

compliance@nuplex.com.au

Recommended Use

Composite fabrications

2. HAZARDS IDENTIFICATION

Hazard Classification

Classified as Hazardous according to criteria of National Occupational Health and Safety Commission (NOHSC), Australia.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Risk Phrase(s)

R10 Flammable.

R20 Harmful by inhalation.

R36/38 Irritating to eyes and skin.

Safety Phrase(s)

S16 Keep away from sources of ignition - No smoking.

S23 Do not breathe gas/fumes/vapour/spray

S33 Take precautionary measures against static discharges.

S53 Avoid exposure - obtain special instructions before use.

S61 Avoid release to the environment. Refer to special instructions/safety data sheets.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization

Liquid

Ingredients

Name	CAS	Proportion
Styrene	100-42-5	30-60 %
Ingredients determined not to be hazardous		Balance

4. FIRST AID MEASURES

Inhalation

If inhaled, remove affected person from contaminated area. Apply artificial respiration if not breathing. Seek medical attention.

Ingestion

Do not induce vomiting. Wash out mouth thoroughly with water. Seek immediate medical attention.

Skin

Remove all contaminated clothing immediately. Wash affected area thoroughly with soap and water. Wash contaminated clothing before reuse or discard. Seek medical attention.

Eye

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Continue flushing for several minutes until all contaminants are washed out completely. Seek medical attention.

First Aid Facilities

Eyewash and normal washroom facilities.

Advice to Doctor

Treat symptomatically.

Other Information

For advice in an emergency, contact a Poisons Information Centre or a doctor at once. (131 126)

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide, dry chemical or foam. Alcohol resistant foam is preferred. If not available normal foam can be used.

Hazards from Combustion Products

Under fire conditions this product may emit toxic and/or irritating fumes, smoke and gases including carbon monoxide, carbon dioxide and oxides of nitrogen.

Specific Hazards

Flammable liquid. Vapour/air mixtures may ignite explosively. Flashback along the vapour trail may occur. Heat may cause polymerisation with explosive violence. Runoff to sewer may create fire or explosion hazard.

Hazchem Code

•3Y

Precautions in connection with Fire

Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed containers. Fight fire from safe location. This product should be prevented from entering drains and watercourses.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures

Wear appropriate personal protective equipment and clothing to prevent exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unprotected personnel. If possible contain the spill. Place inert absorbent, non-combustible material onto spillage. Use clean non-sparking tools to collect the material and place into suitable labelled containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Flammable liquid. Exposure without protection must be prevented. Avoid exposure, contact with skin and eyes. Wear overalls, impervious gloves and safety glasses. DO NOT store or use in confined spaces. Avoid breathing in spray or mists or vapours. Use in designated areas with adequate ventilation. Use approved flammable liquid storage containers in the work area. Prevent release of vapours and mists into workplace air. Keep containers tightly closed. Take precautionary measures against static discharges. Keep material away from sparks, flames and other ignition sources. Do not empty into drains. Ensure a high level of personal hygiene is maintained when using this product, that is, always wash hands before eating, drinking, smoking or using the toilet facilities.

Conditions for Safe Storage

Store in the shade, in a well-ventilated area preferably below 30°C and well away from sources of ignition. This product should be stored away from foodstuffs, strong oxidising agents and other incompatible materials. Handle and store in accordance with applicable local and national regulations for flammable liquids. The product has a limited storage life due to inhibitor depletion and should be used within six months of delivery. Rapid polymerisation resulting in violent rupture of closed containers and possible fire from flammable vapours may be initiated by high temperatures or certain contaminants. Oxidising agents (e.g. organic peroxides), strong acids (e.g. sulphuric acid), ferrous salts present in rust, and some metal halides promote polymerisation. Alkalis reduce the inhibitor concentration and increase the risk of spontaneous polymerisation. Contamination of the product with these substances should be avoided. Exposure to UV radiation (including from light fittings), can initiate slow polymerisation that may continue in a sealed container. For information on the design of the storeroom, reference should be made to Australian Standard AS1940 - The storage and handling of flammable and combustible liquids. Reference should also be made to all applicable local and national regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**National
Exposure
Standards**

Substance	Regulations	Exposure Duration	Exposure Limit	Units	Notes
	Safe Work Australia	TWA	50	ppm	
	Safe Work	TWA	213	mg/m3	

Styrene	Australia				
	Safe Work Australia	STEL	100	ppm	
	Safe Work Australia	STEL	426	mg/m3	

Biological Limit Values

Name: (styrene)

Determinant: Mandelic acid plus phenylglyoxylic acid

Specimen: Creatinine in urine.

Value: 400 mg/g

Sampling time: end of shift.

Source: American Conference of Industrial Hygienists (ACGIH)

Engineering Controls

This substance is hazardous and should be used with a local exhaust ventilation system, drawing vapours away from workers' breathing zone. If the engineering controls are not sufficient to maintain concentrations of vapours/mists below the exposure standards, suitable respiratory protection must be worn. Refer to relevant regulations for further information concerning ventilation requirements.

Refer to AS 1940 - The 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.

Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements.

Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye Protection

Safety glasses with side shields, chemical goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices should conform to relevant regulations. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

Hand Protection

Wear gloves of impervious material such as laminated film. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations.

Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Body Protection

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form

Liquid

Appearance

Clear/hazy viscous liquid

Odour

Characteristic styrene

Melting Point

Not available

Boiling Point

145°C (styrene) May polymerise below boiling point.

Solubility in Water

Insoluble

Solubility in Organic Solvents

Soluble in acetone, glycol ethers, toluene.

Specific Gravity

0.95 - 1.15

pH Value

Not applicable

Vapour Pressure

0.6 kPa (20°C) (styrene)

Vapour Density (Air=1)

3.6 (styrene)

Evaporation Rate

0.49 (n-Butyl acetate=1) (styrene)

Colour

May be tinted

Flash Point

31°C (styrene) (Tag Closed Cup)

Flammability

Flammable liquid.

Auto-Ignition Temperature

490°C (styrene)

Flammable Limits - Lower

1.1% (styrene)

Flammable Limits - Upper

6.1% (styrene)

10. STABILITY AND REACTIVITY

Chemical Stability

Stable under normal conditions of storage and handling. Unstable at elevated temperatures.

Conditions to Avoid

Heat and other sources of ignition, contaminants. Store at temperatures not exceeding 38° C.

Incompatible Materials

Contact with copper and copper alloys. Alkylation catalysts and strong acids (H₂SO₄, H₃PO₄, BF₃, AlCl₃), halogens and hydrogen halides. Oxidising agents.

Hazardous Decomposition Products

Thermal decomposition may result in the release of toxic and/or irritating fumes, smoke and gases including carbon monoxide, carbon dioxide and oxides of nitrogen.

Hazardous Polymerization

May occur in the presence of polymerisation accelerators. Heat may cause polymerisation with explosive violence.

11. TOXICOLOGICAL INFORMATION

Toxicology Information

Styrene:

LD50 (Dermal, Rabbit): >5,010 mg/kg

LC50 (Inhalation, Rat): 11.8 mg/L/4H

Inhalation

Harmful if inhaled. Inhalation of product vapours can cause irritation of the nose, throat and respiratory system.

Ingestion

Ingestion of this product may irritate the gastric tract causing nausea and vomiting.

Skin

Irritating to skin. Skin contact will cause redness, itching and swelling. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis.

Eye

Irritating to eyes. On eye contact this product will cause tearing, stinging, blurred vision, and redness.

Chronic Effects

Prolonged or repeated skin contact may cause defatting leading to drying and cracking of skin and dermatitis.

Carcinogenicity

Styrene is listed as a Group 2B: Possibly carcinogenic to humans according to International Agency for Research on Cancer (IARC).

12. ECOLOGICAL INFORMATION

Ecotoxicity

No ecological data available for this material.

Persistence / Degradability

Slow but nearly complete biodegradation. Not expected to persist in the environment. (styrene)

Mobility

Low mobility (styrene)

KOC: 2.42 - 2.96 (estimated)

Bioaccumulative Potential

Styrene:

Moderate potential to bioaccumulate. Partition Coefficient: n-octanol/water: 2.95,

Bioconcentration Factor (BCF): 0.83 - 1.13

Environmental Protection

Do not discharge this material into waterways, drains and sewers.

Acute Toxicity - Fish

Styrene:

LC50 (fathead minnow): 10 mg/L/96H

Acute Toxicity - Daphnia

Styrene:

EC50 (Daphnia magna): 4.7 mg/L/48H

Acute Toxicity - Algae

Styrene:

EC50 (Green algae): 0.72 mg/L/96H

13. DISPOSAL CONSIDERATIONS

Disposal Considerations

Dispose of waste according to applicable local and national regulations. Labels should not be removed from containers until they have been cleaned. Do not cut, puncture or weld on or near containers. Empty containers may contain flammable residues. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers. Advise flammable nature.

14. TRANSPORT INFORMATION

Transport Information

This material is a Class 3 - Flammable Liquid according to The Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)
Class 3 - Flammable Liquids are incompatible in a placard load with any of the following:
Class 1: Explosives
Division 2.1: Flammable gases (Division 2.1 and Class 3 are incompatible in transport if both are in tanks or other receptacles with a capacity individually exceeding 500 L.)
Division 2.3: Toxic gases
Division 4.2: Spontaneously combustible substances
Division 5.1: Oxidising substances Division 5.2: Organic peroxides
Class 6 Toxic or Infectious Substances (where the flammable liquid is nitromethane)
Class 7: Radioactive materials unless specifically exempted

U.N. Number

1866

Proper Shipping Name

RESIN SOLUTION

DG Class

3

Packing Group

III

Hazchem Code

•3Y

IERG Number

14

UN Number (Air Transport, ICAO)

1866

IATA/ICAO Proper Shipping Name

RESIN SOLUTION

IATA/ICAO Hazard Class

3

IATA/ICAO Packing Group

III

IATA/ICAO Symbol

Flammable liquid.

IMDG UN No

1866

IMDG Proper Shipping Name

RESIN SOLUTION

IMDG Hazard Class

3

IMDG Pack. Group

III

IMDG Marine Pollutant

No

IMDG EMS

F-E,S-E

15. REGULATORY INFORMATION

Regulatory Information

Classified as Hazardous according to criteria of National Occupational Health and Safety Commission (NOHSC), Australia.

Classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

Poisons Schedule

S5

Hazard Category

Harmful, Irritant, Flammable

Australia (AICS)

All components of this product are listed on the Inventory

16. OTHER INFORMATION

Date of preparation or last revision of MSDS

SDS amendment: January 2013

1. Identification of the Material and Supplier

SDS Reviewed: April 2012, Supersedes: May 2007

Contact Person/Point

IMPORTANT ADVICE: This MSDS summarizes 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 should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact the supplier listed in section 1 of the SDS. 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.

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the maximum extent permitted by law all liability whatsoever and howsoever arising for all loss and/or damage including but not limited to for personal injury, sickness and death, damage to real property and chattels and direct and indirect consequential loss and loss of profits.

Technical Contact Numbers

For further information ask for: For specialist advice in emergencies: 1800 022 037

End of MSDS

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