

MATERIAL SAFETY DATA SHEET INFORMATION

For further information: Please refer to the Material Safety Data Sheet following

Issue: February 13

PRODUCT: NanoProtect SC-96

Other Names: None

Uses: Construction materials

| | |
|-------------------------------|------|
| UN No.: | N/R |
| Dangerous Goods Class: | N/R |
| Subsidiary Risk: | None |
| Packing Group: | N/R |
| Hazchem Code: | N/R |
| Poisons Schedule: | N/R |

| | |
|----------------------------|--|
| Hazardous Nature: | This product is not hazardous according to Australian Safety and Compensation Council criteria. |
| Exposure Standards: | TWA: No data available for this type of product; STEL: No data available for this type of product; Peak Limitation (if any): No data available for this type of product; Skin Sensitiser (if any): No data available for this type of product. Refer to Section 8 for further information and definitions. |

Physical Characteristics (Typical) Section 9 of the MSDS

| | |
|---|--|
| Appearance | Clear, viscous liquid |
| Boiling Point/Range (°C): | > 100 |
| Flash Point (°C): | Not applicable |
| Specific Gravity/Density (g/ml @ 15°C): | ~1.05 |
| pH: | 7.0 - 8.0 |
| Chemical Stability: | This product is stable at room temperature and pressure. |
| Reactivity: | None known |

Product Ingredients Section 3 of the MSDS

| <u>Ingredient</u> | <u>CAS Number</u> | <u>Proportion</u> |
|---------------------------------|-------------------|-------------------|
| Acrylate block copolymer resin | various | > 50 |
| Water | 7732-18-5 | < 30 |
| Ethylene Glycol Monobutyl Ether | 111-76-2 | < 2.0 |

For further ingredients information, please refer to the full MSDS

Risk Phrases Section 2 of the MSDS

Not hazardous: intentionally left blank

DEFINITIONS

| | |
|----------------------|--|
| Dangerous Goods | Products that are regulated for transport by Road and Rail under the national guide are Dangerous Goods. Products can be classed as Dangerous Goods if they have a flash point below 60.5°C, a pH below 3 or above 11, are explosives or toxic. These goods will be allocated a UN No., Packing Group, Hazchem Code, and possibly a subsidiary risk. |
| Hazardous Substances | Hazardous Substances are those products that are intrinsically hazardous by nature, rather than by misuse. These include mutagens, teratogens, carcinogens, products that are toxic (but not sufficiently toxic to be classed as Dangerous Goods or carry a subsidiary risk), and products that pose environmental risks. |
| Poisons | Poisons are products that are regulated by the dose or exposure, often having physical and chemical effects at certain concentrations particular to the nature of the product. For example, in small doses, some products are harmless, but with increased concentration or exposure these products can be extremely harmful. The classification indicates First Aid, etc. |

1. IDENTIFICATION

Product Name: NanoProtect SC-96
Other Names: None
Chemical Family: Liquid Glaze
Molecular Formula: Not Applicable
Recommended Use: Construction materials
Supplier: Shieldcoat Pty Ltd
ABN: 79 090 620 410
Address: 2/1075 Beaudesert Road, Archerfield Qld 4108
Telephone: +61 7 3274 6911
Fax: +61 7 3274 6414
Emergency Phone: **0414 539 703**
All other inquiries: +61 7 3274 6911

2. HAZARDS IDENTIFICATION

Hazard Classification

This product is not hazardous according to Australian Safety and Compensation Council criteria.

Hazard Category

This section is intentionally left blank.

Risk Phrases

Not hazardous: intentionally left blank

Safety Phrases

Not hazardous: intentionally left blank

Dangerous Goods Classification

N/R

Poisons Schedule

N/R

3. COMPOSITION: Information on Ingredients

| Chemical Ingredient | CAS Number | Proportion (% v/v) |
|---------------------------------|------------|--------------------|
| Acrylate block copolymer resin | various | > 50 |
| Water | 7732-18-5 | < 30 |
| Ethylene Glycol Monobutyl Ether | 111-76-2 | < 2.0 |
| Mould inhibitor | various | < 0.1 |
| Surfactants | various | < 2.0 |

4. FIRST AID MEASURES

For advice, contact Poisons Information Centre (Phone Australia: 13 1126) or a doctor.

Ingestion

If swallowed, DO NOT induce vomiting. Keep at rest. Seek immediate medical attention.

Eye Contact

Flush eyes with large amounts of water until irritation subsides. Seek immediate 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 affective victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest. Seek immediate medical attention.

First Aid Facilities

Provide eye baths and safety showers.

Medical Attention

Treat according to symptoms.

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 fire fighters with this Material Safety Data Sheet. Prevent extinguishing media from escaping to drains and waterways.

Suitable Extinguishing Media

Product will not burn.

Hazards from combustion products

None: product will not burn.

Precautions for fire fighters and special protective equipment

None: product will not burn.

Hazchem Code

N/R

6. ACCIDENTAL RELEASE MEASURES**Emergency Procedures**

Prevent product from escaping to drains and waterways. Contain leaking packaging in a containment drum. Prevent vapours or dusts 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, where present.
- Prevent product 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.
- Contain the spilled product using the resources in the spill kit.
- 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, where present.
- Notify the port or 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”.

7. HANDLING AND STORAGE

Precautions for Safe Handling

There are no specific safety requirements for handling this product. Standard industrial hygiene and safety practice is recommended when using this product.

Conditions for Safe Storage

There are no specific safety requirements for storing this product. Consider checking containers for leaks periodically and protect the packaging from physical damage (store out of direct sunlight, away from high traffic areas, etc.).

Incompatible Materials

None known

8. EXPOSURE CONTROLS: PERSONAL PROTECTION

National Exposure Standards

The time weighted average concentration (TWA) for this product is: No data available for this type of product, which means the highest allowable exposure concentration in an eight-hour day for a five-day working week. The short term exposure limit (STEL) is: No data available for this type of product, which is the maximum allowable exposure concentration at any time. Replacing a TWA or STEL value for some products is a Peak Limitation value (Peak): None applies in this case. In addition to the exposure concentrations may be a subsidiary caution in such cases where the product is a skin sensitizer, represented as (Sk), where none applies in this case.

Biological Limit Values (BLV)

No data available for this type of product

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 equipment.

Personal Protective Equipment

Respiratory Protection: Where concentrations in air may approach or 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: Always use safety glasses or a face shield when handling this product.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

| Property | Unit of measurement | Typical Value |
|--------------------------|-------------------------|-----------------------|
| Appearance | None | Clear, viscous liquid |
| Boiling Point/Range | °C | > 100 |
| Flash Point | °C | Not applicable |
| SG/Density (@ 15°C) | g/ml; kgm ⁻³ | ~1.05 |
| Vapour Pressure @ 20°C | kPa | No data available |
| Vapour Density @ 20°C | g/ml; kgm ⁻³ | No data available |
| Autoignition Temperature | °C | Not applicable |

| Property | Unit of measurement | Typical Value |
|--------------------------|---------------------|----------------|
| Explosive Limits in Air | % vol/vol | Not applicable |
| Viscosity @ 20°C | cPs, mPas | > 400 |
| Percent volatiles | % vol/vol | 40% |
| Acidity/alkalinity as pH | None | 7.0 - 8.0 |
| Solubility in Water | g/l | Water soluble |
| Other solvents | - | None |

The values listed are indicative of this product's physical and chemical properties. For a full product specification, please consult the Technical Data Sheet.

10. STABILITY AND REACTIVITY

Chemical stability

This product is stable at room temperature and pressure.

Conditions to avoid

None known

Hazardous decomposition products

None known

Hazardous reactions

None known

Hazardous polymerisation

Will not occur

11. TOXICOLOGICAL INFORMATION

Acute Effects

Ingestion

Ingestion will result in discomfort on swallowing. No narcotic effects are expected.

Eye Contact

This product will cause discomfort to the eye and surrounding tissue. These effects will subside with appropriate First Aid.

Skin Contact

This product is unlikely have any effect on the skin, however, individuals with pre-existing skin conditions may experience some sensitivity.

Inhalation

Inhalation of this product is unlikely and no vapours are present in the formula.

Chronic Effects

None known

Other Health Effects Information

None known

Toxicological Information

Oral LD₅₀: No data available

Dermal LD₅₀: No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic Toxicity:

Fish Toxicity LC₅₀: No data available
 Daphnia Magna EC₅₀: No data available
 Blue-green algae: No data available
 Green algae: No data available

Persistence/Biodegradability:

This product is expected to persist.

Mobility:

This product is unlikely to be very mobile.

13. 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 product residue that may be harmful. Ensure that empty packaging is managed in accordance with Dangerous Goods regulations.

Special Precautions

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 incinerated in a regulated facility. In the absence of a designated industrial incinerator, this product should be treated and disposed through chemical waste treatment, or considered for use in solvent recycling.

14. TRANSPORT INFORMATION

| Road and Rail Transport | | Marine Transport | | Air Transport | |
|-------------------------|-------------------|----------------------|-------------------|----------------------|-------------------|
| UN No. | N/R | UN No. | N/R | UN No. | N/R |
| Proper Shipping Name | Roof tile coating | Proper Shipping Name | Roof tile coating | Proper Shipping Name | Roof tile coating |
| DG Class | N/R | DG Class | N/R | DG Class | N/R |
| Sub. Risk | None | Sub. Risk | None | Sub. Risk | None |
| Packing Group | N/R | Packing Group | N/R | Packing Group | N/R |
| Hazchem | N/R | Hazchem | N/R | Hazchem | N/R |

Dangerous Goods Segregation

This product is not classified as Dangerous Goods for Transport by Road and Rail.

15. REGULATORY INFORMATION

Country/Region: Australia

Inventory: AICS

Status: Listed

Poisons Schedule: N/R

16. OTHER INFORMATION

Reasons for Issue: Upgraded MSDS. New information in all sections.

Abbreviations:

AICS: Australian Inventory of Chemical Substances

CAS Number: Chemical Abstracts Number

IARC: International Agency for Research on Cancer

ASCC: Australian Safety and Compensation Council

References:

- Supplier Material Safety Data Sheets
- *Sax's Dangerous Properties of Industrial Materials*, Richard J Lewis Snr., pub. Canada (2000)

The information sourced for the preparation of this document was correct and complete at the time of writing to the best of the writer's knowledge. The document represents the commitment to the company's responsibilities surrounding the supply of this product, undertaken in good faith. This document should be taken as a safety guide for the product and its recommended uses, but is in no way an absolute authority. Please consult the relevant legislation and regulations governing the use and storage of this type of product. For further information, please contact Shieldcoat Pty Ltd.
