

Siloxane Clear *Deodorised*

Clear waterproof coating for concrete, brick, natural stone & other masonry surfaces.

DESCRIPTION:

SILOXANE CLEAR is an oligomeric siloxane, when applied to concrete, brick and natural stone facades, provides a waterproof finish without changing the outward appearance. Impregnation with SILOXANE CLEAR reduces the ingress of water, preventing water-related problems: e.g. reinforcement corrosion, binder loss and biological promoted decay due to moss.

SILOXANE CLEAR, unlike Silicone, is suitable for use in high pH conditions e.g. new concrete, lime mortars and lime based building bricks/blocks.

The product does not affect the vapour diffusion, allowing the façade to breathe. Historical examination of completed projects suggests that when applied correctly, a SILOXANE CLEAR treated façade is still water repellent after 10 years service.

APPLICATIONS:

- External waterproofing of block and brick, fibrous sheet and porous tile facades.
- Prevention of moss growth and dirt retention on pavers, walls and roofs.
- Reduction of sandstone decay due to salts and low pH precipitation.
- Elimination of white salt spotting.
- Treatment of rising damp in old homes.
- Protection of reinforced concrete against steel corrosion by chloride diffusion.

Siloxane Clear is available in 20 and 10 litre drums.

SPECIFICATIONS:

Product

Oligomeric iso-octyl silane, in a mineral spirit base, 6 % active.

Coverage

Varies widely, dependant on absorption characteristics. E.g. from 3 m²/lit for concrete to ½ m²/lit. for highly porous material. A trial area of 1-2 m² will assist in determining application rate.

A wall treated with Siloxane Clear will not allow moisture to penetrate, reducing evidence of salts and the growth of moss and mildew.

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Example of two bricks, one coated with Siloxane Clear (top) water is seen to be beading on the surface. The other brick not coated is absorbing water.

Application

Using a low-pressure spray (hand pump pressure pot) or brush to achieve total saturation with a minimum of 2 coats applied sequentially (wet on wet) 3mm penetration minimum.

SURFACE PREPARATION

Hairline cracks need not be filled however cracks wider than 0.3mm should be sealed. Repair damaged expansion joints, and faulty junctions

Clean dirty surfaces and remove algae or moss before impregnation (treat with suitable fungicide).

Cleaned surfaces are easy to impregnate because absorbency is increased resulting in maximum penetration of treatment. Allow surfaces to dry before applying SILOXANE CLEAR treatment.

Any salt and effervescence should be removed using diluted acid.

APPLICATION PROCEDURES

To ensure that sufficient impregnate enters the surface, SILOXANE CLEAR should be applied by spraying or flooding. Larger areas are best treated using

low-pressure airless spraying.
Smaller areas can be treated by brush applying SILOXANE CLEAR – adhering to the application rate.
When spraying, the distance between the nozzle and the wall should be 5-10cm. SILOXANE CLEAR is applied until no more is absorbed and the solution runs down 40-50cm. The spraying nozzle is then slowly moved on, horizontally. With this method care should be taken that the substrate is evenly wet during application. Siloxane Clear can also be used to seal porous natural stone without leaving an unnatural glossy finish.

Protection During Use

Protect overspray and splashes from windows, doors, vehicles and vegetation

Since dry, impregnated surfaces look the same as unimpregnated ones, it is advisable to thoroughly treat a specified area of the surface twice, without interruption.

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Siloxane Concentrate Version: 2.5 (AUS) Date of print: 25.11.2005 Date of last alteration: 29.07.2004

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NOT CLASSIFIED AS HAZARDOUS ACCORDING TO THE CRITERIA OF NOHSC

1 Identification of the substance/preparation and company

1.1 Name of substance/preparation

Commercial product name: **SILOXANE CONCENTRATE**

1.2 Use of substance / preparation: Industrial.

Modifying agent for: Building materials

2 Composition/information on ingredients

2.1 Chemical characterization (preparation):

Chemical characteristics

alkylsilicone resin with alkoxy groups + filler(s) + auxiliary product(s)

2.2 Hazardous ingredients:

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3 Hazards identification

3.0

This chemical is not classified as Hazardous according to the criteria of NOHSC. This chemical is not classified as a Dangerous Good.

3.1 Classification:

R-Phrase Description

R10 Flammable.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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3.2 Further hazards to man and environment:

Inhalation of aerosol spray may damage health.

Product hydrolysed with the formation of methanol (CAS no. 67-56-1). Methanol is toxic if inhaled, swallowed or comes into contact with the skin (T, R23/24/25),

leads to irreversible damage if inhaled, comes into contact with the skin or is swallowed (T, 39/23/24/25) and is highly flammable (F, R11).

4 First-aid measures

4.1 General information:

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4.2 After inhalation:

Move to fresh air, keep the victim laying down and restful. If breathing has stopped, give artificial respiration. Administer oxygen in case of breathing difficulties.

Seek medical advice and clearly identify substance.

4.3 After contact with the skin:

Wash with plenty of water or soap and water; immediately remove all contaminated clothing. In cases of sickness seek medical advice (show label if possible).

4.4 After contact with the eyes:

Rinse immediately with plenty of water for 10-15 minutes and seek medical advice.

4.5 After swallowing:

Drink plenty of water in small portions and induce vomiting. Seek medical advice immediately and produce the label or packaging.

Please note: In Australia the SUSDP now generally recommends "NOT TO INDUCE VOMITTING", as the risk of aspiration into the lungs is considered a greater risk (SUSDP Aug 2001).

4.6 Advice for the physician:

In case of contact with water material splits off (also in gastrointestinal tract) methanol in larger amounts; therefore consider poisoning on methanol and also observe known period of latency of several days!

In case of contact with water material splits off (also in gastrointestinal tract) methanol in larger amounts; therefore consider poisoning on methanol and also observe known period of latency of several days!

5 Fire-fighting measures

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5.1 Suitable extinguishing media:

water mist, extinguishing powder, alcohol-resistant foam, carbon dioxide, sand.

5.2 Extinguishing media which must not be used for safety reasons:

water spray, water jet .

5.3 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases:

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5.4 Special protective equipment for fire fighting:

Use respiratory protection independent of recirculated air.

6 Accidental release measures

6.1 Personal precautions:

Wear personal protection equipment (see section 8). Keep unprotected persons away. Avoid contact with eyes and skin. Avoid inhaling mists and vapors. If material is released indicate risk of slipping.

6.2 Environmental precautions:

Prevent material from entering surface waters, drains or sewers and open soil. Contain any fluid that runs out using suitable material (e.g. earth). Retain contaminated water/extinguishing water.

Dispose of in prescribed marked containers.

6.3 Methods for cleaning up:

Do not flush away with water. For small amounts: Absorb with a liquid binding material such as diatomaceous earth and dispose of according to local/state/federal regulations. Contain larger amounts and pump up into suitable containers. Clean any slippery coating that remains using a detergent / soap solution or another biodegradable cleaner. Exhaust vapors.

6.4 Further information:

Eliminate all sources of ignition.

7 Handling and storage

7.1 Handling

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Precautions for safe handling:

Ensure adequate ventilation. Keep away from incompatible substances in accordance with section 10.2.

Spilled substance increases risk of slipping.

Precautions against fire and explosion:

Product can separate methanol. Vapors may form in closed rooms with air mixtures, leading to explosion in the presence of sources of ignition, even in empty, uncleaned vessels. Keep away from sources of ignition and do not smoke. Take precautionary measures against electrostatic charging. Cool endangered containers with water.

7.2 Storage**Conditions for storage rooms and vessels:**

Make sure there is no possibility of entering the ground.

Advice for storage of incompatible materials:

not applicable

Further information for storage:

Protect against moisture. Store in original container only. Keep container tightly closed and store in a cool, well ventilated place.

8 Exposure controls and personal protection equipment**8.1 Exposure limits****Safety Data Sheet (91/155/EEC)****SILOXANE CONCENTRATE**

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Maximum airborne concentrations at the workplace**CAS No. Material Type mg/m³ ppm Dust fract. Fibre/m³**

67-56-1 Methanol TLV_GB 266,0 200,0

8.2 Exposure limited and controlled**8.2.1 Exposure in the work place limited and controlled****General protection and hygiene measures:**

Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols. Do not eat, drink or smoke when handling.

Personal protection equipment**Respiratory protection:**

In case of long or strong exposure: gas mask filter ABEK.

Hand protection:

Protective gloves made of butyl rubber. Gloves suitable for up to 60 minutes' use.

Eye protection:

tight fitting protective goggles .

Skin protection:

protective clothing .

8.2.2 Exposure to the environment limited and controlled:

Prevent material from entering surface waters, drains or sewers and open soil.

8.3 Further information for system design and engineering measures:

Observe information in section 7.

9 Physical and chemical properties**9.1 General information**

Physical state / form.....: liquid

Colour.....: opaque

Odour.....: slight

9.2 Important information about the protection of health, safety and the environment Method (67/548/EEC):

Melting point / melting range.....: not determined

Boiling point / boiling range.....: 190 °C at 1013 hPa

Flash point.....: approx. 38 °C (ISO 2719)

Sustained combustibility.....: 110 °C (ISO 2719)

Ignition temperature: 280 °C (DIN 51794)

Lower explosion limit (LEL).....: not determined

Upper explosion limit (UEL).....: not determined

Vapor pressure.....: 50 hPa at 20 °C

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Vapor pressure.....: 120 hPa at 50 °C

Density.....: 1,05 g/cm³ at 25 °C (DIN 51757)

Water solubility / miscibility.....: virtually insoluble

pH-Value.....: not applicable

Viscosity (dynamic).....: 15 - 19 mPa*s (DIN 51562)

9.3 Other information

Re 9.2 solubility in water: Hydrolytic decomposition occurs. Explosion limits for released methanol: 5.5 - 44%(V). Re 9.2 pH Value: Product displays neutral

reaction.

10 Stability and reactivity

10.0 General information:

If stored and handled in accordance with standard industrial practices no hazardous reactions are known.

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10.1 Conditions to avoid:

moisture

10.2 Materials to avoid:

Reacts with: water and acids . Reaction causes the formation of: methanol.

10.3 Hazardous decomposition products:

Under the effect of humidity, water and protic agents: methanol. The following applies for the silicone content of the substance: Measurements have shown the formation of small amounts of formaldehyde at temperatures above about 150 °C (302 °F) through oxidation.

11 Toxicological information

11.0 General information:

Product not investigated.

11.1 Toxicological tests

Further information:

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11.3 Further toxicological information:

Product(s) of hydrolysis: Attention! Product may hydrolyse in gastro-intestinal tract and produce methanol. According to literature methanol (67-56-1) irritates mucuous membranes, has skin drying and narcotic effects up to coma or death. Absorption by the skin is possible. Possibility of damage to heart, kidneys, liver and optic nerves (blindness) over a period of time.

12 Ecological information

12.1 Ecotoxicity

Classification based on ingredients: Harmful to aquatic organisms. May have long-term damaging effects in in-shore waters.

12.2 Mobility

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12.3 Persistence and degradability

Biodegradation / further information:

The product of hydrolysis (methanol) is highly biodegradable. Silicone content: Biologically not degradable.

Further information:

By hydrolysis: Methanol and silanol- and/or siloxanol-compounds. Silicone content: Elimination by adsorption in activated sludge.

12.4 Bio-accumulation potential

Further information:

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12.5 Other harmful effects

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12.6 Further ecological information

General information:

According to our present knowledge no further data known.

13 Disposal considerations

13.1 Material

Recommendation:

Dispose of according to regulations by incineration in a special waste incinerator. Observe local/state/federal regulations.

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13.2 Uncleaned packaging

Recommendation:

Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/state/federal regulations.

14 Transport information

14.1 Land transport GGVSE/ADR and RID

Road ADR:

Valuation.....: Not regulated for transport

Comment.....: Not regulated in Class 3 - ADR/RID 2.2.3.1.1 NOTE

1 - Substance does
not sustain combustion!

Railway RID:

Valuation.....: Not regulated for transport

Comment.....: Not regulated in Class 3 - ADR/RID 2.2.3.1.1 NOTE

1 - Substance does
not sustain combustion!

14.2 Inland navigation GGVBinSch/ADNR

14.3 Transport by sea GGVSee/IMDG-Code

Valuation.....: Not regulated for transport

Comment.....: Not regulated in Class 3 - IMDG 2.3.1.3 -

Substance does not sustain combustion!

14.4 Air transport ICAO-TI/IATA-DGR

Valuation.....: Not regulated for transport

Comment.....: Not regulated in Class 3 - IATA 3.3.1.3 / ICAO

3.1.3 - Substance does not sustain combustion!

14.5 Transport/further information

Postal and courier service:

German postal dispatch.....: permitted

Informing dept. ref. to heading 14. Transport information:

Department MW-G (Gefahrgut-Service), Telefax: +49/(0) 8677/83-5589, Telephone:
+49/(0) 8677/83-4950

15 Regulatory information

15.0 This product has a flash point at approx. 38°C due to the <1% Methanol that is released by the product, but the overall product does not support combustion when heated up to 110°C.

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Other national and local measures relating to the workplace, pollution control, environmental protection and waste control.

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16 Other information

16.1 Material

The above information describes exclusively the safety requirements of the product(s) and is based on our present-day knowledge. It does not represent a guarantee for the properties of the product(s) described in terms of the legal warranty regulations. Properties of the product are to be found in the respective product leaflet.

16.2 Further information:

Commas appearing in numerical data denote a decimal point. Vertical lines in the left-hand margin indicate changes compared with the previous version.

n.a. = not applicable n.s. = not subject to

Details of international registration status

Listed on the following inventories:

HSNO
IECSC
TSCA
PICCS
EINECS
ECL
DSL
AICS