

# SAFETY DATA SHEET

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Compilation date: 01/12/2016

Revision No: 2

## Section 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Product name:** StarGard polysilazane coating.

**Product code:** Polysilazane

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Use of substance / mixture:** Protective Coating

### 1.3. Details of the supplier of the safety data sheet

**Company name:** Supagard limited  
19 Gavinton street  
Muirend  
Glasgow  
G44 3EF

**Tel:** +44 1416335933

**Email:** [james.smyth@supagard.com](mailto:james.smyth@supagard.com)

**1.4. Emergency telephone number**+44 1416335933

**Emergency tel:** +1-904-540-8532

## Section 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification under CHIP:** -: R10; Xn: R22; Xi: R36/37/38

**Classification under CLP:** STOT SE 3: H335; Acute Tox 4: H302; Eye Irrit. 2: H319; Flam. Liq. 3: H226; Skin Irrit. 2:H315

**Most important adverse effects:** Flammable. Harmful if swallowed. Irritating to eyes, respiratory system and skin.

### 2.2. Label elements

#### Label elements under CLP:

**Hazard statements:** H226: Flammable liquid and vapour.

H302: Harmful if swallowed.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

**Signal words:** Warning

**Hazard pictograms:** GHS02: Flame

GHS07: Exclamation mark



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**Precautionary statements:** P280: Wear eye protection.  
P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor.  
P303+361+353: IF ON SKIN (or hair): Remove immediately all contaminated clothing.  
Rinse skin with water/shower.  
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P370+378: In case of fire: Use CO2 for extinction.

## Label elements under CHIP:

**Hazard symbols:** Harmful.



**Risk phrases:** R10: Flammable.  
R22: Harmful if swallowed.  
R36/37/38: Irritating to eyes, respiratory system and skin.

## 2.3. Other hazards

**Other hazards:** In use, may form flammable / explosive vapour-air mixture.

**PBT:** This product is not identified as a PBT substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous ingredients:

DODECAMETHYL CYCLOHEXASILOXANE

EINECS	CAS	CHIP Classification	CLP Classification	Percent
208-764-9	540-97-6	Xi: R36/37/38		30-50%
PROPRIETRY INGREDIENT				
-		Xn: R22	-	30-50%

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TETRAPROPYL ORTHOSILICATE

211-659-0

682-01-9

Xi: R36/38

Skin Irrit. 2: H315; Eye Irrit. 2: H319;  
STOT SE 3: H335

10-30%

## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water.

**Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor.

**Ingestion:** Wash out mouth with water. Consult a doctor.

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

### 4.2. Most important symptoms and effects, both acute and delayed

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

### 4.3. Indication of any immediate medical attention and special treatment needed

**Immediate / special treatment:** Eye bathing equipment should be available on the premises.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Alcohol resistant foam. Water spray. Carbon dioxide. Dry chemical powder. Use water spray to cool containers.

### 5.2. Special hazards arising from the substance or mixture

**Exposure hazards:** Flammable. In combustion emits toxic fumes. Forms explosive air-vapour mixture.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## Section 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions:** Refer to section 8 of SDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the

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contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid. Eliminate all sources of ignition.

## 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.

## 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Do not use equipment in clean-up procedure which may produce sparks.

## 6.4. Reference to other sections

**Reference to other sections:** Refer to section 8 of SDS.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air. Smoking is forbidden. Use non-sparking tools.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Store in cool, well ventilated area. Keep container tightly closed. Keep away from sources of ignition. Prevent the build up of electrostatic charge in the immediate area. Ensure lighting and electrical equipment are not a source of ignition.

**Suitable packaging:** Not applicable.

### 7.3. Specific end use(s)

**Specific end use(s):** No data available.

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

**Workplace exposure limits:** No data available.

### 8.1. DNEL/PNEC Values

**DNEL / PNEC** No data available.

### 8.2. Exposure controls

**Engineering measures:** Ensure there is sufficient ventilation of the area. Ensure lighting and electrical equipment are not a source of ignition.

**Respiratory protection:** Self-contained breathing apparatus must be available in case of emergency.

**Hand protection:** Protective gloves.

**Eye protection:** Safety glasses. Ensure eye bath is to hand.

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**Skin protection:** Protective clothing.

## Section 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**State:** Liquid

**Colour:** Colourless

**Odour:** Pungent

**Evaporation rate:** Slow

**Oxidising:** Non-oxidising (by EC criteria)

**Solubility in water:** Insoluble

**Also soluble in:** Most organic solvents.

**Viscosity:** Non-viscous

**Kinematic viscosity:** 10

**Viscosity test method:** Kinematic viscosity in 10<sup>-6</sup> m<sup>2</sup>/s at 40°C (ISO 3104/3105)

**Boiling point/range°C:** 245

**Flash point°C:** 55 - 60

**pH:** 11

### 9.2. Other information

**Other information:** Flash point of mixture determined by Pensky-Martens Closed cup (ISO 3679; ISO 3680)

## Section 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity:** Stable under recommended transport or storage conditions.

### 10.2. Chemical stability

**Chemical stability:** Stable under normal conditions. Stable at room temperature.

### 10.3. Possibility of hazardous reactions

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions.  
Decomposition may occur on exposure to conditions or materials listed below.

### 10.4. Conditions to avoid

**Conditions to avoid:** Heat. Hot surfaces. Sources of ignition. Flames.

### 10.5. Incompatible materials

**Materials to avoid:** Strong oxidising agents. Strong acids.

### 10.6. Hazardous decomposition products

**Haz. decomp. products:** In combustion emits fumes of SiO<sub>2</sub>

## Section 11: Toxicological information

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## 11.1. Information on toxicological effects

### Relevant effects for mixture:

Effect	Route	Basis
Acute toxicity (harmful)	ING	Hazardous: calculated
Irritation	OPT INH DRM	Hazardous: calculated

### Symptoms / routes of exposure

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

## Section 12: Ecological information

### 12.1. Toxicity

**Ecotoxicity values:** No data available.

### 12.2. Persistence and degradability

**Persistence and degradability:** Biodegradable.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential:** No bioaccumulation potential.

### 12.4. Mobility in soil

**Mobility:** Readily absorbed into soil.

### 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT substance.

### 12.6. Other adverse effects

**Other adverse effects:** Negligible ecotoxicity.

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal operations:** Transfer to a suitable container and arrange for collection by specialised disposal company.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

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## Section 14: Transport information

### 14.1. UN number

UN number: UN1993

### 14.2. UN proper shipping name

Shipping name: FLAMMABLE LIQUID, N.O.S.  
(DODECAMETHYL CYCLOHEXASILOXANE; TETRAPROPYL ORTHOSILICATE)

### 14.3. Transport hazard class(es)

Transport class: 3

### 14.4. Packing group

Packing group: III

### 14.5. Environmental hazards

Environmentally hazardous: No

Marine pollutant: No

### 14.6. Special precautions for user

Special precautions: No special precautions. Tunnel code: /E

Transport category: 3

## Section 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

### 15.2. Chemical Safety Assessment

## Section 16: Other information

### Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

\* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and 3: H226: Flammable liquid and vapour.  
H302: Harmful if swallowed.  
H315: Causes skin irritation.  
H319: Causes serious eye irritation.  
H335: May cause respiratory irritation.  
R10: Flammable.  
R22: Harmful if swallowed.  
R36/37/38: Irritating to eyes, respiratory system and skin.  
R36/38: Irritating to eyes and skin.

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**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.