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**DIRECT  
CLADDING**

**PRODUCT DATA SHEET & HEALTH & SAFETY INFORMATION**

This document provides all the descriptions, handling and Health and Safety information for each product sold on the Direct Cladding website, in the order they appear on each colour product page.  
(Everything you need all in one place.)

IF IN DOUBT or if you have any additional queries  
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**To go straight to a specific product  
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● **CLADDING SHEETS  
& PROFILES**



● **COLOURED SILICONES**



● **SILICONES**



● **ADHESIVES**



## PRODUCT DATA SHEET



### PROPERTIES

- > Fire rated to UL94 - V-0
- > High chemical resistance
- > Effective wall protection
- > Cost effective and easy to install

### FORMS

- > Sheet 



### PRODUCT DESCRIPTION

#### Sheets & Profiles

U-PVC is a fire rated material, with high chemical resistance providing effective, reliable joining.

U-PVC also has a wide operating temperature range (0°C - 60°C), forming a cost effective material that is easy to install.



### THIS DOCUMENT CONTAINS:

#### MATERIAL INFORMATION

- TECHNICAL PROPERTIES
- CHEMICAL PROPERTIES

#### HEALTH & SAFETY

- SAFETY PROPERTIES

## MATERIAL INFORMATION

 TECHNICAL PROPERTIES

Physical Properties	Test	Unit	Result
1. Specific gravity	ISO 1183	g/cm <sup>3</sup>	1.45
2. Water absorption	ISO 62	%	0.2
3. Maximum service temp. Upper temp limit (no stronger mechanical stress involved)	-	°C	60
4. Long Term	-	°C	60
5. Lower temp limit	-	°C	0

Mechanical Properties	Test	Unit	Result
1. Tensile strength at yield	ISO 527	MPa	>45
2. Elongation at yield	ISO 527	%	-
3. Tensile strength at break	ISO 527	MPa	-
4. Elongation at break	ISO 527	%	>25
5. Impact strength	ISO 179	kJ/m <sup>2</sup>	no break
6. Notch impact strength	ISO 179	kJ/m <sup>2</sup>	-
7. Ball indentation / Rockwell hardness	ISO 2039-1	MPa	-
8. Shore-D	DIN 53505	-	80
9. Flexural strength	ISO 178	MPa	-
10. Modulus of elasticity	ISO 527	MPa	2500

Thermal Properties	Test Method	Unit	Result
1. Vicat-softening point VST/B/50	ISO 306	°C	79
2. Heat deflection temperature HDT/B HDT/A	ISO 75	°C	-
3. Coefficient of linear thermal expansion	DIN 53752	k <sup>-1</sup> *10 <sup>-4</sup>	0.7
4. Thermal conductivity at 20 °C	DIN 52612	W / (m*K)	0.2

Electrical Properties	Test Method	Unit	Result
1. Volume resistivity	VDE 0303	Ω x m	-
2. Surface resistivity	-	Ω	1013
3. Dielectric constant at 1MHz	-	-	-
4. Dielectric loss factor at 1 MHz	DIN 53483	-	-
5. Dielectric strength	VDE 0303	kV/mm	21
6. Tracking resistance	IEC 60112	-	-

Additional Data	Test Method	Unit	Result
1. Bondability	-	-	-
2. Food compliance	EU	-	+
3. Flammability	UL 94	-	V-0

KEY    + Yes    ° Limited    - No data

All the above information is for guide purposes only. The data has been taken from standard test results provided by our manufacturers.

## MATERIAL INFORMATION

### CHEMICAL PROPERTIES

Agent	Conc %	Working	Temp
		20°C	60°C
Acetic Acid	100	+	-
Acetone	100	-	-
Ammonia	Conc.	+	o
Ammonium Chloride	-	+	+
Amyl Alcohol	-	+	o
Benzene	-	-	-
Bleaching Solution	12,5 Cl	+	-
Boric Acid	100	+	o
Brake Fluid	-	+	+
Butyl Acetate	-	-	-
Calcium Chloride	-	+	+
Carbon disulphide	100	-	-
Carbon Tetrachloride	-	-	-
Chlorine, gas	100	o	-
Chlorobenzene	100	-	-
Chloroform	-	-	-
Citric Acid	10	+	+
Cresol	-	-	-
Cyclohexanone	100	-	-
Cyclohexene	100	+	o
Diesel Fuel	-	+	-
Diethylene oxide, THF	-	-	-
Ethyl Acetate	100	-	-
Ethyl Alcohol	96	+	o
Ethylene Chloride	100	-	-
Formic Acid	10	+	o
Frost Protection Agent	Petrol	+	+
Fuel, Aromatic Free	-	+	+
Glycerine	100	+	+
Glycol	100	+	+
Heating Oil	-	+	+
Heptane	100	+	+
Hydrochloric Acid	Conc.	+	+

Agent	Conc %	Working	Temp
Hydrofluoric Acid	100	+	o
Hydrogen Peroxide	100	+	+
Hydrogen Sulphide	Conc.	+	+
Isopropyl Alcohol	-	+	-
Mercurochrome	-	o	-
Methyl Alcohol	-	+	+/o
Methyl Ethyl Ketone	12,5 CL	-	-
Methylene Chloride	100	-	-
Nitric Acid	-	+	+
Nitrobenzene	-	-	-
Oxalic Acid	-	+	+
Ozone, Gas	100	+	+
Paraffin Oil	-	+	o
Perchlorethylene	100	-	-
Petroleum	100	+	+
Petroleum, Aromatic Free	-	+	+
Phenol, Aqu	10	o	-
Phosphoric Acid	-	+	+
Potassium Hydroxide Liquor	100	+	+
Propyl Alcohol	100	+	o
Pyridine	-	-	-
Silicone Oil	-	+	+
Sodium Carbonate. aqu	100	+	+
Sodium Chloride, aqu	96	+	+
Sodium Hydroxide Liquor	100	o	o
Sodium Hydroxide Liquor	10	o	o
Sodium Hydrogen Sulphite Petrol	+	+	
Sodium Nitrate, aqu	-	+	+
Sodium Thiosulfate	100	+	+
Sulphuric Acid	100	+	+/o
Tetrahydrofuran	-	-	-
Toluene	100	-	-
Trichlorethylene	Conc.	-	-
Xylene	-	-	-

KEY + Yes   o Limited   - No data

All the above information is for guide purposes only. The data has been taken from standard test results provided by our manufacturers.

## HEALTH & SAFETY

### SAFETY PROPERTIES

#### **Substance / preparation and company detail**

U-PVC is also known as Rigid Polyvinyl Chloride

It's Chemical / Material Name is Polyvinyl Chloride Homopolymer.

It's NFPA (National Fire Protection Association) Ratings are:

Health = 1, meaning handling may cause minor irritation or residual injury if Installation and Safety Guides are not followed.

Fire = 0, meaning it presents no hazard beyond that of ordinary combustible materials and will not burn easily.

Reactivity = 0, meaning the material is stable and does not react with water under normal conditions.

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#### **Composition / indications to components**

Calcium-Zinc stabilised PVC profiles. Pigments and additives used to enhance specific properties are encapsulated in the polymer resin matrix. No solvents. No plasticisers. No cadmium, lead, or other heavy metals used.

#### **Possible dangers**

No particular hazards known.

Effects of a Single Overexposure.

**Swallowing:** Non-relevant.

**Skin absorption:** Non-relevant.

**Inhalation:** Non-relevant.

**Skin contact:** Exposure is not expected to cause adverse health effects.

**Eye contact:** Non-relevant.

**Effects of a Repeated Overexposure:** None currently known.

**Medical Conditions Aggravated by Overexposure:** None currently known.

**Other Effects of Overexposure:** None currently known.

#### **First-aid measures**

In general handling the material will not cause accidents.

**Inhalation.**

If exposed to combustion fumes in high concentration - Bring victim to fresh air. Seek medical attention.

**Ingestion.**

Non-harmful. If irritation caused, seek medical advice.

**Skin Contact.**

Burns resulting from accidental contact with molten material must be flushed immediately with cold water.

Do not remove the polymer from the skin. Seek medical attention.

**Skin Absorption.**

Non-harmful.

**Eye Contact.**

## HEALTH & SAFETY

### SAFETY PROPERTIES cont.

#### **Fire-fighting measures**

**Extinguisher type:** Water spray or CO2.

(CO2 is less recommended due to lack of cooling capacity).

**Special firefighting procedures:** Personnel without suitable respiratory apparatus should leave the affected area.

**Special protective equipment for fire fighters:** Positive-pressure self-contained breathing apparatus, protective clothing, gas mask approved for acid vapours.

**Unusual fire and explosion hazards:** U- PVC is a self-extinguishing fire retardant material, which being exposed to open fire and high temperatures decomposes, emitting large quantities of HCl, (Hydrogen Chloride Gas) which tends to extinguish the flames.

U-PVC does not continue to burn after ignition without an external fire source.

#### **In the event of extreme fire:**

HCl has a strong acidic odour that causes sensory alert at low concentrations.

HCl odour threshold = 0.77 ppm, you should leave the area immediately on becoming aware of the odour.

Exposure to high concentrations of HCl will cause irritation of the respiratory passages and requires bringing a victim to fresh air and seeking medical attention.

Soot emitted when PVC is forced to burn may obscure visibility.

#### **Measures in case of unintended release**

No special precautions and no personal protective equipment needed. Collect mechanically for disposal.

#### **Handling and storage**

**General handling precautions:** Avoid contact with eyes.

**Ventilation:** General (mechanical) room ventilation is expected to be satisfactory where this product is stored and handled.

No explosion hazard. In the event of fire, cool and overlap product with water.

Static electricity discharge sparks possible during handling. Avoid contact or vicinity of flammable materials.

When opening truck or rail car for unloading, ventilate before entering.

Store in a cool shady area. No special technical protective measures required.

#### **Limitation of exposure**

**Respiratory protection:** No special protection needed.

**Hand protection / protection gloves:** No special protection needed.

**Eye protection:** No special protection needed.

**Other protective equipment:** No special protection needed.

#### **Physical and chemical characteristics**

**Appearance:** Flat or corrugated plastic profiles.

**Physical State:** Solid.

**Colour:** Clear or coloured.

**Odour:** None.

**Density:** 1.35-1.45 gr/cm3.

**Heat Deflection:** 62-65°C.

**Boiling Point, 760 Hg:** Not relevant.

**Viscosity:** Not relevant.

**Solubility in Water:** <0.1g/100mL at 23°C.

**pH Value:** Not relevant.

**Flash Point:** 391°C ASTM D 1929.

**Auto-ignition Temperature:** 454°C ASTM D 1921.

**Flammability Limit:** None.

**Explosion Limits:** None.

**Evaporation Rate:** Not relevant.

**Percent Volatiles:** Not relevant.

## HEALTH & SAFETY

### SAFETY PROPERTIES cont.

#### **Stability and reactivity**

**Stability:** Stable.

**Reactivity:** Hazardous polymerization: Will not occur Hazardous reactions : None

Excessive heat, or open flame. Temperature above 150°C will decompose raw polymer resin and liberate HCl.

**Incompatible materials**

Oxidizing agents or strong mineral acids can cause reaction.

Thermal decomposition begins above 150°C caused by fire, overheating during improper processing.

**Hazardous decomposition products**

**Burning can produce the following combustion products:**

Carbon monoxide (CO) - is highly toxic if inhaled.

Carbon dioxide (CO<sub>2</sub>) - in sufficient concentrations can act as an asphyxiant.

Hydrogen chloride (HCl) - in high concentrations cause irritation of the respiratory passages, at very high concentrations may cause burns to mucous membranes.

#### **Toxic information**

PVC materials have a very low acute toxicity.

**Acute Toxicological Information.**

**Acute oral toxicity:** None.

**Acute percutaneous toxicity:** None.

**Acute vapour exposure:** None.

**Primary skin irritation:** No irritation.

**Eye irritation:** No irritation.

**Sensitisation:** No information available.

**Chronic effects:** Unknown.

**Carcinogenicity:** None.

No known toxicological effects with normal use.

#### **Ecological information**

Persistence and degradability.

Detailed studies have not been conducted concerning the environmental fate of the product.

According to present knowledge no unfavourable ecological effects are to be expected.

Not generally hazardous to water. Insoluble in water, non-toxic solid.

**Mobility:** No information currently available.

**Persistence and biodegradability:** Biodegradation period - tens of years.

**Bio-accumulative potential:** No information currently available.

#### **Environmental Risks**

No hazard expectation to terrestrial or aquatic flora and fauna.

**Eco-toxicity:** LD50 (rats) > 10 gr/kg. : IC50 (bacterial inhibition) - no data available.

**Aquatic toxicity:** LC50 (daphnia magna) - no data available. LC50 (fathead minnow – fish) - no data available.

#### **Other information**

All available ecological data have been taken into account for the development of the hazard and precautionary information contained in this safety data.

## HEALTH & SAFETY

### SAFETY PROPERTIES cont.

#### **Waste-disposal information**

The product is not considered hazardous under current EPA hazardous waste regulations.

Recycling is the preferred method of disposal.

Alternatively, the product may be disposed of in an approved landfill.

High temperature incineration under controlled conditions due to formation of HCl.

All wastes should be evaluated in conjunction with applicable solid and hazardous waste regulations.

Leaching Procedures (TCLP), and disposed of as appropriate.

This product does not contain any cadmium or other heavy metal pigments or stabilisers.

It is the user's responsibility to dispose of all wastes in accordance with all national and local regulations.

#### **Transport information**

**Additional transportation data:** Not currently regulated under Department of Transportation regulations.

**Labelling:** No labelling is required in accordance with the EEC directives.

**Placarding:** No placarding is required in accordance with the EEC directives.

**Special transport requirements:** None.

**Packaging:** Avoid dark-coloured packaging to prevent heat distortion.

The product is classified as a non-hazardous material in the meaning of transport regulations.

#### **Regulations**

With regards to dust formed as a consequence of mechanical treatments, the appropriate regulations value limits for fine dust must be observed: MAC value (fine dust) – 5mg/m3.

**OSHA Hazard Communication Classification for dusts and combustion fumes:** Irritant, Skin Hazard, and Lung Hazard.

**SARA Title III Classification for dusts and combustion fumes:** Acute Health Hazard; Chronic Health Hazard.

**WHMIS Classification:** Non-hazardous.



CHAT WITH AN EXPERT

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This information corresponds with our current knowledge and indicates our products and possible applications. We cannot give a legally binding guarantee of certain properties or the suitability for a specific application. Existing commercial patents must be observed.

A definitive quality guarantee is given in our general conditions of sales. Unless otherwise stated, these values represent averages taken from injection moulding samples. We reserve the right of technical alterations.





### BENEFITS

- > No staining or discolouring on natural stone
- > Perfect bonding without primer on most substrates
- > Sanitary formulation
- > Wide range of colours
- > Neutral curing
- > Almost odourless

### APPROVALS / STANDARDS

- > EN 15651-1: F-EXT-INT-CC 20LM
- > EN 15651-2: G-CC
- > EN 15651-3: S XS2



### PRODUCT DESCRIPTION

#### Bespoke Colour Match Silicone

Bespoke Colour Match Silicone is a plasticiser free neutral silicone sealant which can be ordered in many colours and cures under influence of humidity to form a durable elastic rubber.

Bespoke Colour Match Silicone is specially developed elastic sealing of natural stone and expansion joints in concrete and brickwork, connection joints, curtain wall constructions, glazing systems, kitchens, bathrooms, showers and industrial applications.



### THIS DOCUMENT CONTAINS:

#### MATERIAL INFORMATION

#### ● TECHNICAL DATA

## MATERIAL INFORMATION

### TECHNICAL DATA

100% Modulus	N/mm	20.40 MPa
Application Rate		130 g/min
Application Temp.		+5°C till +40°C
Base		Neutrale alcoxy
Curing Time	@23°C/50% RH	2mm/day
Density		1.01 g/ml
Elongation at Break		530%
Flow	ISO 7390	<2mm
Frost Resistance during transportation	till -15°C	
Joint Movement		20%
Shore-A Hardness	DIN 53505	15 Shore A
Skin Formation	@23°C/55% RH	15 min
Temperature Resistance	-40°C till +120°C	
Tensile Strength	N/mm2	0.96 MPa

### Surface preparations and finishing

Surfaces must be dry, clean and solid. Clean surfaces before application. Smooth the joint to finish.

### Paintability

This silicone is not paintable. It is recommended to cover the edges of the joint with masking tape in order to prevent that surfaces which remain to be painted will be contaminated with silicone.

### Cleaning

Uncured material and tools can be cleaned. Cured material can only be mechanically removed. Hands should be cleaned afterwards.

### Limitations

Discoloration can occur in dark places and by contact with chemicals.

Not suitable for PE, PP, PC, PMMA, PTFE, neoprene and bituminous substrates.

### Packaging

Cartridge 310ml

### Shelf life

In unopened original packaging between +5°C and +25°C, shelflife till 9 months after production date, stored in a dry place.

### Health & Safety

Data sheet must be read and understood before use of product.

## MATERIAL INFORMATION

### TECHNICAL DATA

#### **Section 1:**

#### **Identification of the substance/mixture and of the company/undertaking**

##### **1.1 Product Identifier**

**Product Name:** Bespoke Colour Match Silicone

**Pure substance/mixture:** QMS003

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

**Recommended use:** Sealant

**Uses advised against:** None known

#### **Section 2:**

#### **Hazards identification**

##### **2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008

Chronic aquatic toxicity

Category 3 - (H412)

##### **2.2 Label elements**

**Signal word:** None

**Hazard statements:** H412 - Harmful to aquatic life with long lasting effects

**EU Specific Hazard Statements:** EUH208 - Contains 2-octyl-2H-isothiazol-3-one [OIT]. May produce an allergic

**Precautionary Statements - EU (§28, 1272/2008)**

P273 - Avoid release to the environment

P501 - Dispose of contents / container to an approved waste disposal plant

**2.3 Other hazards:** Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing

##### **PBT and vPvB assessment**

This mixture contains substances considered to be persistent, bio-accumulating and toxic (PBT). This mixture contains substances considered to be very persistent and very bioaccumulating (vPvB).

#### **Section 3:**

#### **Composition/information on ingredients**

##### **3.1 Substances**

Not applicable

## MATERIAL INFORMATION

 TECHNICAL DATA

## 3.2 Mixtures

Chemical name	EC No.	CAS No.	Weight -%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SLC)	REACH Registration Number
Silica, amorphous	231-545-4	7631-86-9	5 - <10	[B]	-	01-2119379499-16-XXXX
Dodecamethylcyclohexasiloxane [D6]	208-762-8	540-97-6	0.1 - <1	PBT vPvB	-	01-2119517435-42-XXXX
Decamethylcyclopentasiloxane [D5]	208-764-9	541-02-6	0.1 - <1	PBT vPvB	-	01-2119511367-43-XXXX
Octamethylcyclotetrasiloxane [D4]	209-136-7	556-67-2	0.1 - <1	Repr. 2 (H361f) Aquatic Chronic 1 (H410) Flam. Liq. 3 (H226) [G]	-	01-2119529238-36-XXXX
2-octyl-2H-isothiazol-3-one [OIT]	247-761-7	26530-20-1	0.0015 - <0.01	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 2 (H330) Skin Corr. 1B (H314) Eye Dam 1 (H318) Skin Sens. 1A (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	

**Full text of H- and EUH-phrases:** See section 16

Note: ^ indicates not classified, however, the substance is listed in section 3 as it has an OEL

This product contains one or more candidate substance(s) of very high concern

(Regulation (EC) No. 1907/2006 (REACH), (Article 59)

## MATERIAL INFORMATION

 TECHNICAL DATA

Chemical name	Ec No	CAS No	SVHC Candidates
Dodecamethylcyclohexasiloxane [D6]	208-762-8	540-97-6	X
Decamethylcyclopentasiloxane [D5]	208-764-9	541-02-6	X
Octamethylcyclotetrasiloxane [D4]	209-136-7	556-67-2	X

**Section 4:****First aid measures****4.1 Description of first aid measures.**

**General advice:** Show this safety data sheet to the doctor in attendance. If attendance. If medical advice is needed, have product container or label at hand.

**Inhalation:** Remove to fresh air. If symptoms persist, call a doctor.

**Eye contact:** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Consult an ophthalmologist.

**Skin contact:** In the case of skin irritation or allergic reactions, see a doctor. Wash skin with soap and water.

**Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water.

Drink 1 or 2 glasses of water. Do NOT induce vomiting.

**4.2 Most important symptoms and effects, both acute and delayed**

**Symptoms:** None known.

**4.3 Indication of any immediate medical attention and special treatment needed**

**Note to doctors:** Treat symptomatically.

**Section 5:****Fire fighting measures****5.1 Extinguishing media**

**Suitable extinguishing media:** Water, carbon dioxide (CO<sub>2</sub>), dry chemical, alcohol-resistant foam.

**Unsuitable extinguishing media:** Full water jet.

**5.2 Special hazards arising from the substance or mixture**

**Specific hazards arising from the chemical:** Hazardous combustion products.

**Unsuitable extinguishing media:** Silicone oxides. Silicone dioxide. Thermal decomposition can lead to release of irritating and toxic gases and vapours.

**5.3 Advice for firefighters**

**Specific protective equipment and precautions for fire-fighters:** Wear self contained breathing apparatus for fire fighting if necessary.

## MATERIAL INFORMATION

### TECHNICAL DATA

#### **Section 6:**

##### **Accidental release measures**

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

**Personal precautions:** Do not get in eyes, on skin, or on clothing. Use personal protective equipment as required.

Ensure adequate ventilation.

**For emergency responders:** Use personal protection recommended in Section 8.

###### **6.2 Environmental precautions**

**Environmental precautions:** Prevent product from entering drains. Do not allow to enter into soil/subsoil.

See Section 12 for additional Ecological Information.

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

**Methods for containment:** Do not scatter spilled material with high pressure water streams.

**Methods for cleaning up:** Take up mechanically, placing in appropriate containers for disposal.

**Prevention of secondary hazards:** Clean contaminated objects and areas thoroughly observing environmental regulations.

###### **6.4 Reference to other sections:**

See section 8 for more information

See section 13 for more information

#### **Section 7:**

##### **Handling and storage**

###### **7.1 Precautions for safe handling**

**Advice on safe handling:** Ensure adequate ventilation.

**General hygiene considerations:** Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Take off all contaminated clothing and wash it before reuse.

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

**Storage Conditions:** Protect from moisture. Keep away from food, drink and animal feeding stuffs.

**Recommended storage temperature:** Keep at temperatures between 10°C and 35°C.

###### **7.3 Specific end use(s):**

Sealant.

##### **Risk Management Methods (RMM):**

The information required is contained in this safety data sheet.

##### **Other information:**

Observe technical data sheet.

## MATERIAL INFORMATION

 TECHNICAL DATA

## Section 8:

## Exposure controls/personal protection

## Control parameters

**Exposure Limits:** Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing.

Chemical name	European Union	United Kingdom
Silica, amorphous 7631-86-9	TWA: 0.1 mg/m <sup>3</sup>	TWA: 6 mg/m <sup>3</sup> TWA: 2.4 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup> STEL: 18 mg/m <sup>3</sup> STEL: 7.2 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup> TWA: 200 ppm
Methyl alcohol 67-56-1	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> *	TWA 266 mg/m <sup>3</sup> STEL: 250 ppm STEL: 333 mg/m <sup>3</sup> Sk*

Chemical name	European Union	Ireland	United Kingdom
Methyl alcohol 67-56-1	-	15 mg/L (urine - methanol end of shift)	-

## Derived No Effect Level (DNEL):

No information available.

## Derived No Effect Level (DNEL)

## Dodecamethylcyclohexasiloxane [D6] (540-97-6)

Type	Worker / Long term / Systemic health effects
Exposure route	Inhalation
Derived No Effect Level (DNEL)	11 mg/m <sup>3</sup>

Type	Worker / Long term / Local health effects
Exposure route	Inhalation
Derived No Effect Level (DNEL)	1.22 mg/m <sup>3</sup>

Type	Worker / Short term / Local health effects
Exposure route	Inhalation
Derived No Effect Level (DNEL)	6.1 mg/m <sup>3</sup>

## MATERIAL INFORMATION

 TECHNICAL DATA

## Section 8:

## Continued

**Decamethylcyclopentasiloxane [D5] (541-02-6)**

Type	Worker / Short term / Systemic health effects
Exposure route	Inhalation
Derived No Effect Level (DNEL)	9.7 mg/m <sup>3</sup>
Type	Worker / Short term / Local health effects
Exposure route	Inhalation
Derived No Effect Level (DNEL)	24.2 mg/m <sup>3</sup>
Type	Worker / Long term / Systemic health effects
Exposure route	Inhalation
Derived No Effect Level (DNEL)	97.3 mg/m <sup>3</sup>
Type	Worker / Long term / Local health effects
Exposure route	Inhalation
Derived No Effect Level (DNEL)	24.2 mg/m <sup>3</sup>

**Octamethylcyclotetrasiloxane [D4] (556-67-2)**

Type	Worker / Long term / Systemic health effects
Exposure route	Inhalation
Derived No Effect Level (DNEL)	73 mg/m <sup>3</sup>

**Derived No Effect Level (DNEL)****Dodecamethylcyclohexasiloxane [D6] (540-97-6)**

Type	Consumer / Long term / Systemic health effects
Exposure route	Inhalation
Derived No Effect Level (DNEL)	2.7 mg/m <sup>3</sup>
Type	Consumer / Long term / Local health effects
Exposure route	Inhalation
Derived No Effect Level (DNEL)	0.3 mg/m <sup>3</sup>
Type	Consumer / Short term / Local health effects
Exposure route	Inhalation
Derived No Effect Level (DNEL)	1.5 mg/m <sup>3</sup>

## MATERIAL INFORMATION

 TECHNICAL DATA

## Section 8:

## Continued

Type	Consumer / Long term / Systemic health effects
Exposure route	Oral
Derived No Effect Level (DNEL)	1.7 mg/kg bw/d

Type	Consumer / Short term / Systemic health effects
Exposure route	Oral
Derived No Effect Level (DNEL)	1.7 mg/kg bw/d

**Decamethylcyclopentasiloxane [D5] (541-02-6)**

Type	Consumer / Short term / Systemic health effects
Exposure route	Inhalation
Derived No Effect Level (DNEL)	17.3 mg/m <sup>3</sup>

Type	Consumer / Short term / Systemic health effects
Exposure route	Oral
Derived No Effect Level (DNEL)	5 mg/kg bw/d

Type	Consumer / Short term / Local health effects
Exposure route	Inhalation
Derived No Effect Level (DNEL)	4.3 mg/m <sup>3</sup>

Type	Consumer / Long term / Systemic health effects
Exposure route	Inhalation
Derived No Effect Level (DNEL)	17.3 mg/m <sup>3</sup>

Type	Consumer / Long term / Systemic health effects
Exposure route	Oral
Derived No Effect Level (DNEL)	5 mg/kg bw/d

Type	Consumer / Long term / Local health effects
Exposure route	Inhalation
Derived No Effect Level (DNEL)	4.3 mg/m <sup>3</sup>

**Octamethylcyclotetrasiloxane [D4] (556-67-2)**

Type	Consumer / Long term / Systemic health effects
Exposure route	Inhalation
Derived No Effect Level (DNEL)	13 mg/m <sup>3</sup>

## MATERIAL INFORMATION

 TECHNICAL DATA

## Section 8:

## Continued

Type	Consumer / Long term / Systemic health effects
Exposure route	Oral
Derived No Effect Level (DNEL)	3.7 mg/kg bw/d

## Predicted No Effect Concentration (PNEC):

No information available

## Predicted No Effect Concentration (PNEC)

## Dodecamethylcyclohexasiloxane [D6] (540-97-6)

Environmental compartment	Predicted No Effect Concentration (PNEC)
Sewage treatment plan	>1 mg/l
Freshwater sediment	13 mg/kg dry weight
Marine sediment	1.3 mg/kg dry weight
Soil	3.77 mg/kg dry weight
Sewage treatment plan	>10 mg/l

## Decamethylcyclopentasiloxane [D5] (541-02-6)

Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	>0.0012 mg/l
Marine water	>0.00012 mg/l
Freshwater sediment	2.4 mg/kg
Soil	1.1 mg/kg
Sewage treatment plan	>10 mg/l

## Octamethylcyclotetrasiloxane [D4] (556-67-2)

Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	>0.0015 mg/l
Marine water	>0.00015 mg/l
Freshwater sediment	3 mg/kg
Marine sediment	0.3 mg/kg
Sewage treatment plan	0.54 mg/kg
Soil	10 mg/l

## MATERIAL INFORMATION

 TECHNICAL DATA
**Section 8: Continued****Accidental release measures****8.2 Exposure controls**

**Engineering Controls:** Ensure adequate ventilation, especially in confined areas

**Personal protective equipment**

**Eye/face protection:** Wear safety glasses with side shields (or goggles). Eye protection must conform to standard EN 166

**Hand protection:** Wear suitable gloves. Ensure that the breakthrough time of the glove material is not exceeded.

Refer to glove supplier for information on breakthrough time for specific gloves. The breakthrough time for the mentioned glove material is in general greater than 480 min. Glove thickness > 0.7mm. Recommended Use: Neoprene™ Nitrile rubber. Butyl rubber. Gloves must conform to standard EN 374.

**Skin and body protection:** None under normal use conditions.

**Respiratory protection:** In case of inadequate ventilation, wear respiratory protection. Wear a respirator conforming to EN 140 with Type A/P2 filter or better. Ensure adequate ventilation, especially in confined areas.

**Recommended filter type:** Organic gases and vapours filter conforming to EN 14387. White. Brown.

**Environmental exposure control:** Do not allow uncontrolled discharge of product into the environment.

**Section 9:****Physical and chemical properties****9.1 Information on basic physical and chemical properties**

<b>Physical state</b>	Solid	
<b>Appearance</b>	Paste	
<b>Colour</b>	Multiple colours	
<b>Odour</b>	Characteristic	
<b>Odour threshold</b>	No information available	
<b>Property</b>	<b>Values</b>	<b>Remarks · Method</b>
<b>Melting point / freezing point</b>	No data available	None known
<b>Initial boiling point and boiling range</b>	No data available	None known
<b>Flammability</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability or explosive limits</b>	No data available	
<b>Lower flammability or explosive limits</b>	No data available	
<b>Flash point</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>		None known
<b>pH</b>	No data available	None known. Insoluble in water
<b>pH (as aqueous solution)</b>	No data available	None known

## MATERIAL INFORMATION

 TECHNICAL DATA

**Section 9:**  
**Physical and chemical properties**

Kinematic viscosity	>20.5	None known
Dynamic viscosity	No data available	
Water solubility	Insoluble in water	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapour pressure	No data available	None known
Relative density	No data available	None known
Bulk Density	No data available	
Liquid Density	1.02	
Relative vapour density	No data available	None known
Particle characteristics		
Particle size	No data available	
Particle size distribution	No data available	

## 9.2 Other information

Solid content (%)	No information available
VOC content	No data available

## Information with regards to physical hazard classes

Not applicable

## Other safety characteristics

No information available

**Section 10:**  
**Stability and reactivity**

## 10.1 Reactivity

Product cures with moisture

## 10.2 Chemical stability

## Stability

Stable under normal conditions

## Explosion data

## Sensitivity to mechanical

None

## Sensitivity to static discharge

None

## MATERIAL INFORMATION

### TECHNICAL DATA

#### **Section 10:**

##### **Continued**

###### **10.3 Possibility of hazardous reactions**

**Possibility of hazardous reactions:** None under normal processing.

###### **10.4 Conditions to avoid**

**Conditions to avoid:** Product cure with moisture. Exposure to air or moisture over prolonged periods. Do not freeze.

Keep away from open flames, hot surfaces and sources of ignition.

###### **10.5 Incompatible materials**

**Incompatible materials:** Strong oxidising agents.

###### **10.6 Hazardous decomposition products**

**Hazardous decomposition products:** Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing.

#### **Section 11:**

##### **Toxicological information**

###### **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

###### **Information on likely routes of exposure**

###### **Product Information**

**Inhalation:** Based on the available data, the classification criteria are not met.

**Eye contact:** Based on the available data, the classification criteria are not met.

**Skin contact:** May cause sensitisation in susceptible persons.

**Ingestion:** Based on the available data, the classification criteria are not met.

###### **Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms:** No information available.

###### **Acute toxicity**

**Numerical measures of toxicity**

## MATERIAL INFORMATION

 TECHNICAL DATA

## Section 11:

## Continued

## Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Silica, amorphous	= 7900 mg/kg (Rattus)	>5000 mg/kg (Oryctolaguscuniculus)	>2.2 mg/L (Rattus) 1 h
Dodecamethylcyclohexasiloxane [D6]	>50 g/kg (Rattus)	>2000 mg/kg (Rat)	-
Decamethylcyclopent	>24134 mg/kg (Rattus)	16 mL/kg (Oryctolaguscuniculus)	= 8.67 mg/L (Rat) 4 h
Octamethylcyclotetrasiloxane [D4]	LD50 > 4800 mg/kg (Rattus) OECD 401	LD50 > 2400 mg/kg (Rattus) OECD 402	= 36 g/m <sup>3</sup> (Rattus) 4 h

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation:**

Based on available data, the classification criteria are not met.

**2-octyl-2H-isothiazol-3-one [OIT] (26530-20-1)**

Method	Species	Exposure route	Results
OECD Test No. 404: Acute Dermal Irritation/Corrosion Rabbit	Dermal	Corrosive	Corrosive

**Serious eye damage/eye irritation**

Based on available data, the classification criteria are not met.

**Respiratory or skin sensitisation**

No classification is proposed, based on conclusive negative data. OECD Test No 406: Skin Sensitisation. No Sensitisation responses were observed. May cause sensitisation in susceptible persons.

**2-octyl-2H-isothiazol-3-one [OIT] (26530-20-1)**

Method	Species	Exposure route	Results
OECD Test No. 429: Skin Sensitisation: Local Lymph Node Assay	Rabbit	Mouse	Sensitising

**Germ cell mutagenicity**

Based on available data, the classification criteria are not met.

**Carcinogenicity**

Based on available data, the classification criteria are not met.

**Reproductive toxicity**

Based on available data, the classification criteria are not met.

## MATERIAL INFORMATION

 TECHNICAL DATA

## Section 11:

## Continued

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins

Chemical name	European Union
Octamethylcyclotetrasiloxane	Repr. 2

**STOT - single exposure:** Based on available data, the classification criteria are not met.

**STOT - repeated exposure:** Based on available data, the classification criteria are not met.

**Aspiration hazard:** Based on available data, the classification criteria are not met.

## 11.2 Information on other hazards

**Endocrine disrupting properties:** No information available.

**Other adverse effects:** No information available.

**Section 12:**  
**Ecological information**

## 12.1 Toxicity

**Ecotoxicity:** Harmful to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustaceae	M-Factor	M-Factor (long-term)
Silica, amorphous 7631-86-9	EC50: =440mg/L (72h, Pseudokirch neriella subcapitata)	LC50: =5000 mg/L (96h, Brachydaniorerio)	-	EC50: =7600 mg/L (48h, Ceriodaphniadubia)	-	-
Dodecamethylcyclohe xasiloxane [D6] 540-97-6	-	90 d NOEC ≥14 μg/L, Oncorhynch usmykiss	-	NOEC ≥4.6 μg/L, (21d) OECD 211	-	-
Octamethylcyclotetra siloxane [D4] 556-67-2	-	LC50: >1000mg/L (96h, Lepomismacrochirus) LC50: >500mg/L (96h, Brachydaniorerio)	-	EC50: =25.2 mg/L (24h, Daphnia Magna)	-	10
2-octyl-2H-isothiazol- 3-one [OIT] 26530-20-1	EC50(72h) = 0.084 mg/L (Scenedesmu ssubspicatus) (OECD 201)	LC50 (96h) = 0.036 mg/L (Oncorhyn chusmykiss) (OECD 203)	-	EC50 (48h) =0.42 mg/L OECD 202)	100	100

## MATERIAL INFORMATION

 TECHNICAL DATA

## Section 12:

## Continued

## 12.2 Persistence and degradability

Persistence and degradability: No information available

## Silica, amorphous (7631-86-9)

Method	Exposure time	Value	Results
-	-	-	The methods for determining biodegradability are not applicable to inorganic substances

## Dodecamethylcyclohexasiloxane [D6] (540-97-6)

OECD Test No. 301B: Ready			
Biodegradability: CO <sub>2</sub>	28 days	4.5%	Not readily biodegradable
Evolution Test (TG 301 B)			

## Dodecamethylcyclohexasiloxane [D6] (540-97-6)

OECD 310	28 days	0.14%	Not readily biodegradable
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## Octamethylcyclotetrasiloxane [D4] (556-67-2)

## 2-octyl-2H-isothiazol-3-one [OIT] (26530-20-1)

OECD Test No. 309: Aerobic	-	Half-life 0.6-1.4 d	Not readily biodegradable
Mineralisation in Surface Water			
- Simulation Biodegradation Test			

## 12.3 Bioaccumulative potential

## Bioaccumulation

## Component Information

Chemical name	Partition coefficient
Decamethylcyclopentasiloxane [D5]	8.02
2-octyl-2H-isothiazol-3-one [OIT]	2.92
Dodecamethylcyclohexasiloxane [D6]	8.87
Octamethylcyclotetrasiloxane [D4]	6.49

## 12.4 Mobility in soil

Mobility in soil: No information available

## MATERIAL INFORMATION

 TECHNICAL DATA

## Section 12:

## Continued

## 12.5 Results of PBT vPvB assessment

## PBT and vPvB assessment

Chemical name	Partition coefficient
Silica, amorphous	The substance is not PBT / vPvB PBT assessment does not apply
Dodecamethylcyclohexasiloxane [D6]	PBT / vPvB substance
Decamethylcyclopentasiloxane [D5]	PBT / vPvB substance
Octamethylcyclotetrasiloxane [D4]	PBT & vPvB
2-octyl-2H-isothiazol-3-one [OIT]	The substance is not PBT / vPvB

## 12.6 Endocrine disrupting properties

Endocrine disrupting properties: No information available

## Component Information

## Octamethylcyclotetrasiloxane [D4] (556-67-2)

Method	Results	Species
Endocrine disrupting properties in accordance with the criteria set out Commission Delegated Regulation (EU) 2017/2100(3) or Commission Regulation (EU) 2018/605(4)	Negative	-

## 12.7 Other adverse effects

No information available

**Section 13:**  
**Disposal considerations**

## 13.1 Waste treatment methods

Waste from residues/unused products: Dispose of contents/container in accordance with local, regional, national and international regulations as applicable.

Contaminated packaging: Handle contaminated packages in the same way as the product itself.

European Waste Catalogue: 08 04 09\* waste adhesives and sealants containing organic solvents or other dangerous substances.

Other information: Waste codes should be assigned by the user based on the application for which the product was used.

## MATERIAL INFORMATION

 TECHNICAL DATA

**Section 14:**  
**Transport information**
**Land transport (ADR/RID)**

14.1	UN Number or ID number	Not regulated
14.2	Proper Shipping Name	Not regulated
14.3	Transport hazard class(es)	Not regulated
14.4	Packing Group	Not regulated
14.5	Environmental hazards	Not applicable
14.6	Special Provisions	None

**IMDG**

14.1	UN Number or ID number	Not regulated
14.2	Proper Shipping Name	Not regulated
14.3	Transport hazard class(es)	Not regulated
14.4	Packing Group	Not regulated
14.5	Marine pollutant	NP
14.6	Special Provisions	None
14.7	Maritime transport in bulk according to IMO instruments	Not applicable

**Air transport (ICAO-TI / IATA-DGR)**

14.1	UN Number or ID number	Not regulated
14.2	Proper Shipping Name	Not regulated
14.3	Transport hazard class(es)	Not regulated
14.4	Packing Group	Not regulated
14.5	Environmental hazards	Not applicable
14.6	Special Provisions	None

## MATERIAL INFORMATION

 TECHNICAL DATA
**Section 15:****Regulatory Information**

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

## European Union

Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)

**SVHC: Substances of Very High Concern for Authorisation:** This product contains one or more candidate substance(s) of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 59).

Chemical name	CAS No.
Dodecamethylcyclohexasiloxane [D6]	540-97-6
Decamethylcyclopentasiloxane [D5]	541-02-6
Octamethylcyclotetrasiloxane [D4]	556-67-2

**EU-REACH (1907/2006) - Annex XVII - Substances subject to Restriction**

This product does not contain substances subject to authorisation

(Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

Chemical name	CAS No.	Restricted substance per REACH Annex XVII
Decamethylcyclopentasiloxane [D5]	541-02-6	70.
Octamethylcyclotetrasiloxane [D4]	556-67-2	70.   75.

**Substance subject to authorisation per REACH Annex XIV:** This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV).

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009:** Not applicable.

**Persistent Organic Pollutants:** Not applicable.

## National Regulations

**15.2 Chemical safety assessment**

Chemical Safety Assessments have been carried out by the Reach registrants for substances registered at >10 tpa.

Chemical Safety Assessment has been carried out for this mixture.

**Section 16:****Other information**

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3:

H226 - Flammable liquid and vapour

H301 - Toxic if swallowed

H311 - Toxic in contact with skin

H314 - Causes severe skin burns and eye damage

H317 - May cause an allergic skin reaction

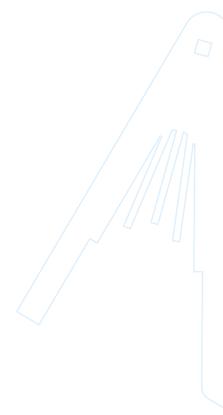
H318 - Causes serious eye damage

H330 - Fatal if inhaled

H361f - Suspected of damaging fertility

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects



## MATERIAL INFORMATION

### TECHNICAL DATA

#### Section 16:

#### Continued

##### Legend

TWA	TWA (time-weighted average)
STEL	STEL (Short Term Exposure Limit)
Ceiling	Ceiling Limit Value
*	Skin designation
SVHC	Substance(s) of Very High Concern
PBT	Persistent, Bioaccumulative, and Toxic (PBT) Chemical
vPvB	Very Persistent and very Bioaccumulative (vPvB) Chemicals
STOT	RE Specific target organ toxicity - Repeated exposure
STOT	SE Specific target organ toxicity - Single exposure
EWC	European Waste Catalogue
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG	International Maritime Dangerous Goods (IMDG)
IATA	International Air Transport Association (IATA)
RID	Regulations concerning the International Transport of Dangerous Goods by Rail

##### Key literature references and sources for data:

No information available

Prepared By: Product Safety & Regulatory Affairs

Revision date: 06-August-2023

##### Indication of changes

Revision note: Not applicable

Training Advice: No information available

Further information: No information available

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

##### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



CHAT WITH AN EXPERT

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This information corresponds with our current knowledge and indicates our products and possible applications. We cannot give a legally binding guarantee of certain properties or the suitability for a specific application. Existing commercial patents must be observed. A definitive quality guarantee is given in our general conditions of sales. Unless otherwise stated, these values represent averages taken from injection moulding samples. We reserve the right of technical alterations.





## BENEFITS

- > Excellent bond to most substrates
- > High movement capability  $\pm 25\%$
- > Weather, ageing and mould resistant
- > Highest sanitary class - XS1
- > Excellent for glazing
- > Low elastic modulus
- > Household chemistry resistant
- > Compatible for sealing surfaces in contact with food

## ADHERING

- > Concrete
- > Masonry
- > Bricks
- > Wood
- > Aluminium (lacquered, anodized, painted)
- > PVC
- > Glass
- > Ceramics



## PRODUCT DESCRIPTION

### Tradeseal CM Silicone White & Clear

Tradeseal CM Silicone is a multipurpose neutral sanitary silicone designed for superior performance. The product offers low modulus, high elasticity and exceptional movement capability. When exposed to atmospheric moisture, it reacts to form a flexible rubber, ensuring long lasting durability in various conditions. Additionally the sealant is fortified with a potent fungicide, providing excellent mould resistance, making it perfect for use in areas that come in to contact with food.



## THIS DOCUMENT CONTAINS:

### MATERIAL INFORMATION

### TECHNICAL PROPERTIES

## MATERIAL INFORMATION

 TECHNICAL DATA

Base:	Oxime	Density:	1.01 g/ml
Tack free time:	2 - 4 minutes	Skin forming time:	5 - 10 minutes
Curing rate:	3 mm/24 hours	Loss of volume:	< 10%
Resistance to flow:	0 mm	Application temp:	5°C - 40°C
Service temp:	-40°C to +140°C	Movement capability:	±25%
Elastic recovery:	> 85 % Shore	A hardness:	18 (approx)
E-modulus 100%:	0.25 N/mm <sup>2</sup>	Tensile strength:	0.35 N/mm <sup>2</sup>
Elongation at break:	> 250 %		

**Technical classifications and certificates**

Sealant for facade for interior and exterior application, suitable for use in cold climates

EN 15651-1:2012: Type F-INT-EXT-CC: CLASS 25LM

Sealant used for sealing glazing applications, suitable for use in cold climates

EN 15651-2:2012: Type G-CC: CLASS 25LM

Sealant used for sanitary joints

EN 15651-3:2012: Type S CLASS XS1

Classified as a material intended to come into contact with food

EN 1186, Regulation (EU) 10/2011

**Application instructions**

Application temperature between +5°C and +40°C. Surfaces must be clean, dry and free of any contaminants liable to impair adhesion. Non-porous surfaces should be cleaned with solvent and a lint free cloth. Excess solvent should be removed before evaporation with a clean cloth.

Cut off the threaded end of the cartridge and screw on the application nozzle for directing sealant. Cut the threaded end in a way where a suitable opening for application is produced. Place the cartridge together with the applicator in the gun and fill the installation nozzle with sealant, by repeatedly pressing the gun trigger.

Apply sealant in the joint by repeatedly and evenly pressing on gun trigger and smoothly dragging the nozzle along the joint. After application, smooth the surface with a suitable tool (e.g., spatula) and remove excess material. If necessary, the adjacent surfaces of the joint should be protected to avoid staining. Usually, masking tape is used for this. Protective masking tapes should be removed before the sealant's skin is formed.

In wider and movable joints, backer rod should be used as a back-up material, to ensure the correct thickness and shape of sealant joint and to avoid three-sided adhesion.

Ensure adequate ventilation in all joint locations. During the curing process, make sure that no impurities can settle on the surface and that the joint surface is not affected by mechanical load.

## MATERIAL INFORMATION

### TECHNICAL DATA cont.

#### **Cleaning**

Uncured sealant can be cleaned with solvents like white spirit, acetone or cleaning wipes.

#### **Packaging**

300ml cartridge, 24 per box.

#### **Storage and shelf life**

Guaranteed shelf life of 12 months from the date of manufacture when stored in original unopened packaging, in a dry place protected from direct sunlight at temperatures between +5°C and +30°C.

#### **Limitations**

Do not use on bituminous surfaces or on building materials which might bleed oils, plasticisers or solvents (e.g. natural rubber, chloroprene, EPDM)

There is no adhesion to low surface energy plastics such as polyethylene, polypropylene, PTFE, Teflon, etc.

Due to the wide range of possible substrates, we recommend a preliminary compatibility and adherence test, if necessary, prime surfaces to improve adhesion.

Due to the wide range of influencers, customers should always test the product first.

Ensure sufficient ventilation during application and wear necessary personal protective equipment.

Ensure employees using this product have read and understood the material safety datasheet.

The information in this datasheet is only valid for Tradeseal CM Silicone in White and Clear colours.



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A definitive quality guarantee is given in our general conditions of sales. Unless otherwise stated, these values represent averages taken from injection moulding samples. We reserve the right of technical alterations.





### BENEFITS

- > Shelf life: 18 months
- > Curing time: 24 hours (initial cure: 30 minutes)
- > Permanently flexible
- > Wet room environments
- > Paintable
- > Non-corrosive towards metals
- > UV, moisture and mould resistant

### APPROVALS / STANDARDS

- > CE Marked to EN15651-1: 2012, Type F EXT-INT-CC 25HM
- > EN15651-3:2012, Type S XS2
- > EN15651-4:2012, Type PW-EXT-INT-CC 25HM, Emicode EC1 Plus



### PRODUCT DESCRIPTION

Sealant with Adhesive

Based on Hybrid Polymer Technology

Premierbond HT is a premium quality, professional and universal sealant/adhesive based on hybrid MS polymer technology. With high tack properties, Premierbond HT has initial bond strength double that of most other grab adhesives and bonds to vertical applications.

Premierbond HT is water, frost and heat resistant from temps. of -40°C to +90°C. Suitable for interior and exterior use.



### THIS DOCUMENT CONTAINS:

### MATERIAL INFORMATION

#### ● TECHNICAL DATA

## MATERIAL INFORMATION

### TECHNICAL DATA

#### Product information

100% Modulus	1.35 Mpa (N/mm <sup>2</sup> )
Application Rate	@3mm/4 bar (150g/min)
Application Temp.	From +5°C to +40°C
Base	Hybrid
Curing Time	24 hours (23°C / 55%RH)
Density	1.53 g/ml
Elongation at Break	300%
Flow	<2mm (ISO 7390)
Frost Resistance During Transportation	Up to -15°C
Shore-A Hardness	DIN 53505 (60 Shore A)
Skin Formation	10 minutes (23°C / 55% RH)
Temp. Resistance	From -40°C to +90°C

#### Surface preparations and finishing

Surfaces must be clean, dry and free from dust, grease and other loose material. At least one of the surfaces has to be porous in order for adhesives to cure. Adhesion tests prior to application are recommended.

Tools should be wiped clean with a paper towel and can be washed in water whilst the adhesive is still un-cured.

#### Paintability

This product is paintable with most paints. A comparability test before application is recommended.

Not paintable with alkyd paints.

#### Cleaning

Tools to be cleaned after use with water.

Cured material can only be mechanically removed.

#### Limitations

Not suitable for PE, PP, PCm PMMA, PTFE, soft plastics, neoprene and bituminous substrates.

Do not use in permanently damp/wet conditions. In damp, cold or humid conditions, curing time may be significantly extended. Do not use on mirrors.

#### Health & Safety

Contains Trimethoxyvinylsilane & N-(3-(trimethoxysilyl)propyl)ethylenediamene & 1,2-Ethanediamine, N-[3-(dimethoxymethylsilyl) propyl]- & Diocetyltinbis(acetylacetone). May produce allergic reaction. Safety data sheet available on request.

## MATERIAL INFORMATION

### TECHNICAL DATA

#### **Section 1:**

##### **Identification of the substance/mixture and of the company/undertaking**

###### **1.1 Product identifier**

**Trade name:** Premierbond HT

**Article number:** QMS003

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

**Recommended use:** Adhesives and/or sealants

**Uses advised against:** Not to be used in protection of toys or childcare articles

#### **Section 2:**

##### **Hazards identification**

###### **2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272 /2008

The product is not classified according to the CLP regulation

###### **2.2 Label elements**

**Signal word:** None

**Hazard statements:** Not Classified

**EU Specific Hazard Statements:** EUH208 - Contains N-(3-(trimethoxysilyl)propyl)ethylenediamine & 1,2-Ethanediamine, N-[3-(dimethoxymethylsilyl)propyl]- & Diocetyltinbis(acetylacetone).

May produce an allergic reaction EUH210 - Safety data sheet available on request.

###### **2.3 Other hazards:** Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing.

May be harmful in contact with skin.

##### **PBT and vPvB assessment**

This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT).

#### **Section 3:**

##### **Composition/information on ingredients**

###### **3.1 Substances**

Not applicable

###### **3.2 Chemical characterisation**

Not applicable

**Mixture description:** Mixture of substances listed below with non-hazardous additions

## MATERIAL INFORMATION

 TECHNICAL DATA

## 3.2 Mixtures

Chemical name	EC No.	CAS No.	Weight -%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SLC)	REACH Registration Number
Trimethoxyvinylsilane	220-449-8	2768-02-7	1- <2.5	Skin Sens. 1b (H317) Acute Tox. 4 (H332) Flam. Liq. 3 (H226)	-	01-2119513215-52-XXXX
Titanium dioxide	236-675-5	13463-67-7	0.1 - <1	Carc. 2 (H351i)	-	01-2119489379-17-XXXX
N-(3-(trimethoxysilyl)propyl)ethylenediamine	217-164-6	1760-24-3	0.1 - <1	Eye Dam. 1 (H318) Skin Sens. 1 (H317) Acute Tox. 4 (H332) STOT SE 3 (H335)	-	01-2119970215-39-XXXX
Diocetyltinbis(acetylacetone)	483-270-6	54068-28-9	0.1 - <1	STOT SE 2 (H371) Skin Sens. 1 (H317)	Skin Sens. 1::	01-0000020199-67-XXXX
1,2-Ethanediamine, N-[3-(dimethoxymethylsilyl)propyl]-	221-336-6	3069-29-2	0.1 - <1	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1A (H317)	-	01-2119963926-21-XXXX

**Full text of H- and EUH-phrases:** See section 16

Note: ^ indicates not classified, however, the substance is listed in section 3 as it has an OEL

This product does not contain candidate substances of very high concern at a concentration >=0.1%

(Regulation (EC) No. 1907/2006 (REACH), Article 59)

## MATERIAL INFORMATION

### TECHNICAL DATA

#### **Section 4:**

##### **First aid measures**

###### **4.1 Description of first aid measures.**

**General advice:** If medical advice is needed, have product container or label to hand. Show this safety data sheet to the doctor in attendance.

**Inhalation:** Remove to fresh air. If symptoms persist, call a doctor.

**Eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 mins. Remove contact lenses, if present and easy to do. Continue rinsing.

**Skin contact:** In the case of skin irritation or allergic reactions, see a doctor. Wash skin with soap and water.

**Ingestion:** Call a doctor immediately. If swallowed, rinse mouth with water (only if the person is conscious). Small amounts of toxic methanol are released by hydrolysis.

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

**Symptoms:** None known.

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

**Note to doctors:** Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing. Treat symptomatically.

#### **Section 5:**

##### **Fire fighting measures**

###### **5.1 Extinguishing media**

**Suitable extinguishing media:** Water, carbon dioxide (CO<sub>2</sub>), dry chemical, alcohol-resistant foam.

**Unsuitable extinguishing media:** Full water jet.

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

**Specific hazards arising from the chemical:** Hazardous combustion products.

**Unsuitable extinguishing media:** Silicone oxides. Silicone dioxide. Thermal decomposition can lead to release of irritating and toxic gases and vapours.

###### **5.3 Advice for firefighters**

**Specific protective equipment and precautions for fire-fighters:** Wear self contained breathing apparatus for fire fighting if necessary.

## MATERIAL INFORMATION

### TECHNICAL DATA

#### **Section 6:**

##### **Accidental release measures**

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

**Personal precautions:** Use personal protective equipment as required. Ensure adequate ventilation.

Do not get in eyes, on skin, or on clothing.

**For emergency responders:** Use personal protection recommended in Section 8.

###### **6.2 Environmental precautions**

**Environmental precautions:** Prevent product from entering drains. Do not allow to enter into soil/subsoil.

See Section 12 for additional Ecological Information.

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

**Methods for containment:** Do not scatter spilled material with high pressure water streams.

**Methods for cleaning up:** Take up mechanically, placing in appropriate containers for disposal.

**Prevention of secondary hazards:** Clean contaminated objects and areas thoroughly observing environmental regulations.

###### **6.4 Reference to other sections:**

See section 8 for more information

See section 13 for more information

#### **Section 7:**

##### **Handling and storage**

###### **7.1 Precautions for safe handling**

**Advice on safe handling:** Ensure adequate ventilation. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

**General hygiene considerations:** Do not eat, drink or smoke when using this product. Wash hands before breaks and after work.

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

**Storage Conditions:** Protect from moisture. Keep at temperatures between 5°C and 35°C.

Keep away from food, drink and animal feeding stuffs.

###### **7.3 Specific end use(s):**

Ashesives and/or sealants.

##### **Risk Management Methods (RMM):**

The information required is contained in this safety data sheet.

##### **Other information:**

Observe technical data sheet.

## MATERIAL INFORMATION

 TECHNICAL DATA

## Section 8:

## Exposure controls/personal protection

## Control parameters

**Exposure Limits:** Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing.

Chemical name	European Union	Ireland	United Kingdom
Diisononyl phthalate	-	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>
28553-12-0		STEL: 15 mg/m <sup>3</sup>	STEL: 15 mg/m <sup>3</sup>
Methyl alcohol	TWA: 200 ppm	TWA: 200 ppm	TWA: 200 ppm
67-56-1	TWA: 260 mg/m <sup>3</sup> *	TWA: 260 mg/m <sup>3</sup> STEL: 600 ppm STEL: 780 mg/m <sup>3</sup> Sk*	TWA: 266 mg/m <sup>3</sup> STEL: 250 ppm STEL: 333 mg/m <sup>3</sup> Sk*

Chemical name	European Union	Ireland	United Kingdom
Methyl alcohol	-	15mg/L (urine - methanol end of shift)	-
28553-12-0			

## Derived No Effect Level (DNEL):

No information available.

## Derived No Effect Level (DNEL)

## Trimethoxyvinylsilane (2768-02-7)

Type	Worker / Long term / Systemic health effects
Exposure route	Inhalation
Derived No Effect Level (DNEL)	27.6 mg/m <sup>3</sup>

Type	Worker / Systemic health effects / Long term
Exposure route	Dermal
Derived No Effect Level (DNEL)	3.9 mg/kg bw/d

## Titanium dioxide (13463-02-7)

Type	Worker / Long term / Local health effects
Exposure route	Inhalation
Derived No Effect Level (DNEL)	10 mg/m <sup>3</sup>

## N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3)

Type	Worker / Long term / Local health effects
Exposure route	Inhalation
Derived No Effect Level (DNEL)	35.5 mg/m <sup>3</sup>

## MATERIAL INFORMATION

 TECHNICAL DATA

## Section 8:

## Continued

Type	Worker / Systemic health effects / Long term
Exposure route	Dermal
Derived No Effect Level (DNEL)	5 mg/kg bw/d

**Diocetyltinbis(acetylacetone) (54068-28-9)**

Type	Long term / Systemic health effects / Worker
Exposure route	Dermal
Derived No Effect Level (DNEL)	0.07 mg/kg bw/d

Type	Long term / Systemic health effects / Worker
Exposure route	Inhalation
Derived No Effect Level (DNEL)	84 mg/m <sup>3</sup>

Type	Short term / Systemic health effects / Worker
Exposure route	Inhalation
Derived No Effect Level (DNEL)	84 mg/m <sup>3</sup>

Type	Long term / Short term / Local health effects / Worker
Exposure route	Inhalation
Derived No Effect Level (DNEL)	0.091 mg/m <sup>3</sup>

**1,2-Ethanediamine, N-3-(dimethoxymethylsilyl)propyl]- (3069-29-2)**

Type	Worker / Long term / Systemic health effects
Exposure route	Inhalation
Derived No Effect Level (DNEL)	12 mg/m <sup>3</sup>

Type	Worker / Long term / Systemic health effects
Exposure route	Dermal
Derived No Effect Level (DNEL)	1.7 mg/kg bw/d

**Derived No Effect Level (DNEL)****Trimethoxyvinylsilane (2768-02-7)**

Type	Consumer / Systemic health effects / Long term
Exposure route	Inhalation
Derived No Effect Level (DNEL)	18.9 mg/m <sup>3</sup>

Type	Consumer / Systemic health effects / Long term
Exposure route	Dermal
Derived No Effect Level (DNEL)	7.8 mg/kg bw/d

## MATERIAL INFORMATION

 TECHNICAL DATA

## Section 8:

## Continued

Type	Consumer / Systemic health effects / Long term
Exposure route	Oral
Derived No Effect Level (DNEL)	0.3 mg/kg bw/d

**Titanium dioxide (13463-02-7)**

Type	Consumer / Long term / Systemic health effects
Exposure route	Oral
Derived No Effect Level (DNEL)	700 mg/kg bw/d

**N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3)**

Type	Consumer / Systemic health effects / Long term
Exposure route	Oral
Derived No Effect Level (DNEL)	2.5 mg/kg bw/d

Type	Consumer / Systemic health effects / Long term
Exposure route	Inhalation
Derived No Effect Level (DNEL)	8.7 mg/m <sup>3</sup>

Type	Consumer / Systemic health effects / Long term
Exposure route	Dermal
Derived No Effect Level (DNEL)	2.5 mg/kg bw/d

**1,2-Ethanediamine, N-3-(dimethoxymethylsilyl)propyl]- (3069-29-2)**

Type	Consumer / Systemic health effects / Long term
Exposure route	Inhalation
Derived No Effect Level (DNEL)	2.9 mg/m <sup>3</sup>

Type	Consumer / Systemic health effects / Long term
Exposure route	Dermal
Derived No Effect Level (DNEL)	0.83 mg/kg bw/d

Type	Consumer / Systemic health effects / Long term
Exposure route	Oral
Derived No Effect Level (DNEL)	0.83 mg/kg bw/d

## MATERIAL INFORMATION

### TECHNICAL DATA

#### Section 8:

#### Continued

##### **Predicted No Effect Concentration (PNEC):**

No information available

##### **Predicted No Effect Concentration (PNEC)**

##### **Trimethoxyvinylsilane (2768-02-7)**

Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.34 mg/l
Marine Water	0.034 mg/l
Microorganisms in sewage treatment	110 mg/l

##### **Titanium dioxide (13463-02-7)**

Environmental compartment	Predicted No Effect Concentration (PNEC)
Marine water	0.0184 mg/l
Freshwater sediment	1000 mg/kg
Freshwater	0.184 mg/l
Marine sediment	100 mg/kg
Soil	100 mg/kg
Microorganisms in sewage treatment	100 mg/l
Freshwater - intermittent	0.193 mg/l

##### **N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3)**

Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.062 mg/l
Marine water	0.0062 mg/l
Sewage treatment plant	25 mg/l

##### **Dioctyltinbis(acetylacetone) (54068-28-9)**

Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	26 µg/l
Marine water	2.6 µg/l
Freshwater - intermittent	1 mg/l
Sewage treatment plant	260 µg/l
Freshwater sediment	0.155 mg/kg dry weight
Marine sediment	0.0155 mg/kg dry weight
Soil	0.0158 mg/kg dry weight

## MATERIAL INFORMATION

 TECHNICAL DATA

## Section 8: Continued

**N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3)**

Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.062 mg/l
Marine water	0.006 mg/l
Sewage treatment plant	25 mg/l
Freshwater sediment	0.24 mg/kg dry weight
Marine sediment	0.01 mg/kg dry weight
Soil	0.024 mg/kg dry weight

**8.2 Exposure controls**

**Engineering Controls:** Ensure adequate ventilation, especially in confined areas

**Personal protective equipment**

**Eye/face protection:** Wear safety glasses with side shields (or goggles). Eye protection must conform to standard EN 166

**Hand protection:** Wear suitable gloves. Ensure that the breakthrough time of the glove material is not exceeded.

Refer to glove supplier for information on breakthrough time for specific gloves. The breakthrough time for the mentioned glove material is in general greater than 480 min. Glove thickness > 0.7mm. Recommended Use: Neoprene™ Nitrile rubber. Butyl rubber. Gloves must conform to standard EN 374.

**Skin and body protection:** None under normal use conditions.

**Respiratory protection:** In case of inadequate ventilation, wear respiratory protection. Wear a respirator conforming to EN 140 with Type A/P2 filter or better. Ensure adequate ventilation, especially in confined areas.

**Recommended filter type:** Organic gases and vapours filter conforming to EN 14387. White. Brown.

**Environmental exposure control:** Do not allow uncontrolled discharge of product into the environment.

## MATERIAL INFORMATION

 TECHNICAL DATA

## Section 9:

## Physical and chemical properties

## 9.1 Information on basic physical and chemical properties

Physical state	Solid	
Appearance	Paste	
Colour	Multiple colours	
Odour	Characteristic	
Odour threshold	No information available	
Property	Values	Remarks • Method
pH	Not applicable	
Melting point / freezing point	No data available	
Boiling point / boiling range	No data available	
Flash point	> 60 °C	
Evaporation rate	No data available	
Flammability (solid, gas)	Not applicable for liquids	
Flammability Limit in Air		
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapour pressure	No data available	
Vapour density	No data available	
Relative density	No data available	
Water solubility	Product cures with moisture	
Solubility(ies)	No data available	
Partition coefficient	No data available	
Autoignition temperature	No data available	
Decomposition temperature	No data available	
Kinematic viscosity	> 21 mm <sup>2</sup> /s	
Dynamic viscosity	No data available	
Explosive properties	No data available	
Oxidising properties	No data available	

## 9.2 Other information

Solid content (%)	No information available
VOC Content (%)	.? g/L / .? %
Density	1.58 g/cm <sup>3</sup>

## MATERIAL INFORMATION

### TECHNICAL DATA

#### **Section 10:** **Stability and reactivity**

##### **10.1 Reactivity**

Product cures with moisture

##### **10.2 Chemical stability**

**Stability:** Stable under normal conditions

##### **Explosion data**

**Sensitivity to mechanical:** None

**Sensitivity to static discharge:** None

**10.3 Possibility of hazardous reactions:** None under normal processing.

##### **10.4 Conditions to avoid**

**Conditions to avoid:** Product cure with moisture. Exposure to air or moisture over prolonged periods. Do not freeze. Keep away from open flames, hot surfaces and sources of ignition.

**10.5 Incompatible materials:** None known based on information supplied.

##### **10.6 Hazardous decomposition products**

**Hazardous decomposition products:** Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing.

#### **Section 11:** **Toxicological information**

##### **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

##### **Information on likely routes of exposure**

##### **Product Information**

**Inhalation:** Based on the available data, the classification criteria are not met.

**Eye contact:** Based on the available data, the classification criteria are not met.

**Skin contact:** May cause sensitisation in susceptible persons.

**Ingestion:** Based on the available data, the classification criteria are not met.

##### **Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms:** No information available.

**Acute toxicity:** The following values are calculated based on chapter 3.1 of the GHS document

<b>ATEmix (dermal)</b>	3,552.50 mg/kg
<b>ATEmix (inhalation-vapour)</b>	699.5098 mg/l

## MATERIAL INFORMATION

 TECHNICAL DATA

## Section 11:

## Continued

## Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Trimethoxyvinylsilane 2768-02-7	LD50 = 7120 -7236 mg/kg (Rattus) OECD 401	3360 µL/kg (Oryctolaguscuniculus)	LC50 (4hr) 16.8 mg/l (Rattus) OECD TG 403
Titanium dioxide 13463-67-7	>10000f mg/kg (Rattus)	LD50 > 10000 mg/kg	>5 mg/l
N-(3-(trimethoxysilyl)propyl)ethylenediamine 1760-24-3	= 2295 mg/kg (Rattus)	>2000 mg/kg (Rattus)	LC50 4H (Aerosol) 1.5 - 2.44 mg/L air
Diocetyltinbis(acetylacetone) 54068-28-9	LD50 = 2500 mg/kg (Rattus)	LD50 >2000 mg/kg (Rattus)	-
1,2-Ethanediamine, N-[3-(dimethoxymethylsilyl)propyl]- 3069-29-2	= 200 - 2000 mg/kg (Rattus) (OECD 401)	>5000 mg/kg (Oryctolaguscuniculus)	-

## Delayed and immediate effects as well as chronic effects from short and long-term exposure

## Skin corrosion/irritation:

Based on available data, the classification criteria are not met.

## Serious eye damage/eye irritation:

Based on available data, the classification criteria are not met.

## Respiratory or skin sensitisation:

OECD Test No. 406: Skin Sensitisation. No sensitisation responses were observed.

No classification is proposed, based on conclusive negative data. May cause sensitisation in susceptible persons.

Method	Species	Exposure route	Results
OECD Test No. 406: Skin Sensitisation	Guinea pig	Dermal	No sensitisation responses were observed
OECD Test No. 406: Skin Sensitisation	Guinea pig	Dermal	No sensitisation responses were observed

## Germ cell mutagenicity

Based on available data, the classification criteria are not met.

## Carcinogenicity

Based on available data, the classification criteria are not met.

## MATERIAL INFORMATION

 TECHNICAL DATA

## Section 11:

## Continued

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins

Chemical name	European Union
Titanium dioxide 13463-67-7	Carc. 2

**STOT - single exposure:** Based on available data, the classification criteria are not met.

**STOT - repeated exposure:** Based on available data, the classification criteria are not met.

**Aspiration hazard:** Based on available data, the classification criteria are not met.

## 11.2 Information on other hazards

**Endocrine disrupting properties:** No information available.

**Other adverse effects:** No information available.

## Section 12:

## Ecological information

## 12.1 Toxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustaceae	M-Factor	M-Factor (long-term)
Trimethoxyvinylsilane 2768-02-7	EC 50 (72h) > 95 mg/l (Desmod esmussubspicatus) EU Method C.3	LC50 (96h) = 191 mg/l (oncorhynch usmykiss)	-	EC50 (48hr) 168.7 mg/l (Daphnia magna)	-	-
Titanium Dioxide 13463-67-7	LC50 (96h) >10000 mg/l (Cyprinodonvarie gatus)	-	-	-	-	-
N-(3-(trimethoxysilyl) propyl)ethylenediamine 1760-24-3	-	LC50 (96h) = 597 mg/l (Daniorerio) Semi-static	-	EC50 (48h) = 81 mg/l Daphnia magna static	-	-
Diocetyltinbis(acetylacet onate) 54068-28-9	-	LC50 (96h) = 86 mg/l (Static)	-	EC50 (48h) = 58.6 mg/l (Daphnia magna)	-	-

## MATERIAL INFORMATION

 TECHNICAL DATA

## Section 12:

## Continued

## 12.2 Persistence and degradability

Persistence and degradability: No information available

## Predicted No Effect Concentration (PNEC)

Trimethoxyvinylsilane (2768-02-7)

Method	Exposure time	Value	Results
OECD Test No. 301F: Ready Biogradability: Manometric Respirometry Test (TG 301)	28 days	BOD	51% Not really biodegradable

## 12.3 Bioaccumulative potential

Bioaccumulation: There is no data for this product

## Component Information

Chemical name	Partition coefficient	Bioconcentration factor (BCF)
Trimethoxyvinylsilane 2768-02-7	1.1	-
N-(3-(trimethoxysilyl)propyl)ethylenediamine 1760-24-3	-0.3	-

## 12.4 Mobility in soil

Mobility in soil: No information available

## 12.5 Results of PBT and vPvB assessment

Chemical name	Partition coefficient
Trimethoxyvinylsilane 2768-02-7	The substance is not PBT / vPvB
Titanium Dioxide 13463-67-7	The substance is not PBT / vPvB - PBT assessment does not apply
N-(3-(trimethoxysilyl)propyl)ethylenediamine 1760-24-3	The substance is not PBT / vPvB
Diocetyltinbis(acetylacetone) 54068-28-9	The substance is not PBT / vPvB
1,2-Ethanediamine, N-[3-(dimethoxymethyl silyl)propyl]-3069-29-2	The substance is not PBT / vPvB

## 12.6 Other adverse effects

No information available

## MATERIAL INFORMATION

### TECHNICAL DATA

#### **Section 13:**

##### **Disposal considerations**

###### **13.1 Waste treatment methods**

###### **Waste from residues/unused products:**

Uncured product should be disposed of as hazardous waste. Dispose of contents/container in accordance with local, regional, national and international regulations as applicable

###### **Contaminated packaging:**

Handle contaminated packages in the same way as the product itself

###### **European Waste Catalogue:**

08 04 10 waste adhesives and sealants other than mentioned in 08 04 09

###### **Other information:**

Waste codes should be assigned by the user based on the application for which the product was used

#### **Section 14:**

##### **Transport information**

###### **Land transport (ADR/RID)**

14.1 UN Number	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special Provisions	None

###### **IMDG**

14.1 UN Number or ID number	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing Group	Not regulated
14.5 Marine pollutant	NP
14.6 Special Provisions	None
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code	Not applicable

###### **Air transport (ICAO-TI / IATA-DGR)**

14.1 UN Number or ID number	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special Provisions	None

## MATERIAL INFORMATION

### TECHNICAL DATA

#### Section 15:

##### Regulatory information

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

###### European Union:

Take note of directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Check whether measures in accordance with Directive 94/33/EC for the protection of young people at work must be taken

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulation (EC 1907/2006):

###### SVHC: Substances of Very High Concern for Authorisation:

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (Regulation (EC) No. 1907/2006 (REACH), Article 59)

###### EU-REACH (1907/2006) - Annex XVII - Substances subject to Restriction:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	CAS No.
Dodecamethylcyclohexasiloxane [D6]	540-97-6
Decamethylcyclopentasiloxane [D5]	541-02-6
Octamethylcyclotetrasiloxane [D4]	556-67-2

###### EU-REACH (1907/2006) - Annex XVII - Substances subject to Restriction

This product does not contain substances subject to authorisation  
(Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

Chemical name	CAS No.	Restricted substance per REACH Annex XVII
Decamethylcyclopentasiloxane [D5]	541-02-6	70.
Octamethylcyclotetrasiloxane [D4]	556-67-2	70.   75.

**Substance subject to authorisation per REACH Annex XIV:** This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV).

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009:** Not applicable.

**Persistent Organic Pollutants:** Not applicable.

###### National Regulations

###### 15.2 Chemical safety assessment

Chemical Safety Assessments have been carried out by the Reach registrants for substances registered at  $>10$  tpa.  
Chemical Safety Assessment has been carried out for this mixture.

## MATERIAL INFORMATION

### TECHNICAL DATA

#### Section 16:

##### Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3:

H226 - Flammable liquid and vapour

H302 - Harmful if swallowed

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

H332 - Harmful in inhaled

H335 - May cause respiratory irritation

H371 - May cause damage to organs

#### Legend

SVHC: Substances of Very High Concern for Authorisation:

#### Legend

SECTION 8: Exposure controls / personal protection

TWA TWA (time-weighted average)

STEL STEL (Short term exposure limit)

Ceiling Maximum limit value Skin designation

PBT Persistent, Bioaccumulative and Toxic (PBT) Chemicals

STOT RE Specific target organ toxicity - Repeated exposure

STOT RE Specific target organ toxicity - Single exposure

EWC European Waste Catalogue

#### Key literature references and sources for data:

No information available

Prepared by: Product Safety & Regulatory Affairs

Revision date: 09-June-2023

#### Indication of changes

Revision note: Not applicable

Training advice: No information available

Further information: No information available

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

#### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



CHAT WITH AN EXPERT

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This information corresponds with our current knowledge and indicates our products and possible applications. We cannot give a legally binding guarantee of certain properties or the suitability for a specific application. Existing commercial patents must be observed.

A definitive quality guarantee is given in our general conditions of sales. Unless otherwise stated, these values represent averages taken from injection moulding samples. We reserve the right of technical alterations.





### BENEFITS

- > Shelf life: 6 months
- > Curing time: 4-6 hours (initial cure: 20 minutes)
- > Full sheet coverage
- > Less chance of bubbling
- > Doesn't need moisture/temp to cure
- > Tough, long lasting resilient bond



### PRODUCT DESCRIPTION

#### Premierbond 2PT White

Premierbond 2PT is a two-component polyurethane adhesive.

The formulation has been designed to give ease of mixing for notched scraper applications. This filled adhesive has been formulated for the bonding of U-PVC and GRP sheets to most building substrates, including brickwork, plaster, concrete, tiles, block work, etc.



### THIS DOCUMENT CONTAINS:

#### MATERIAL INFORMATION

- TECHNICAL DATA PART A
- TECHNICAL DATA PART B

## MATERIAL INFORMATION

### TECHNICAL DATA

#### Directions of use

Premierbond 2PT is supplied as a 6.5kg pack. The mix ratio is 12:1 by weight. Part A is contained in a bucket and part B in a sealed sachet, inside the bucket. Once mixed, the pot life is 20 minutes at 20°C (Longer at lower temperatures) and so substrate preparation should be complete before mixing.

Add all of the part B to the part A and stir until a uniform colour is achieved, ensuring that the sides are scraped down often during mixing. Mixing is best carried out using a 60mm paddle mixer on a drill. When mixed, apply the adhesive to one surface only.

Apply to sheet with a 6mm notched trowel and apply immediately to the substrate smoothing outwards from the centre. Flat plastered walls can have 4-5mm. Leave to cure for at least 4 to 6 hours before removing the protective film.

Property	Details
Based on:	Part A: Paste approx 3850 poise Part B: Low viscosity liquid
2440 x 1220mm	Part A: 1.70 - 1.73 Part B: 1.21 - 1.23
Chemical resistance	Resistant to water, dilute acids and alkalis and aliphatic oils
Solvents	None
Flammability	N/A
Service temp.	-40°C to +130°C
Application temp.	Minimum +10°C ideally above 15°C Minimum +30°C ideally below 25°C 6 months in unopened containers.
Storage life at 25 °C	Store between 5°C and 25°C

#### Surface preparations and finishing

Surfaces must be clean, dry and free from any contaminants liable to impair adhesion. New build structures should be allowed to dry out for at least 6 weeks prior to application of Premierbond 2PT and should then have a moisture content on the surface and in the core of less than 14%. Very porous or dusty substrates may be sealed with a dilution of PVA. Ensure that the PVA is completely dried out.

All materials should be allowed to acclimatise for at least 24 hours before bonding. The sheet, air temperature, adhesive and substrate should all be close to the final operational temperature of the building prior to application to avoid thermal stresses from expansion of the plastic sheeting.

#### Cleaning

Tools to be cleaned after use with water.

#### Limitations

Premierbond 2PT will not bond to polyolefin plastics, e.g. polypropylene.

#### Health & Safety

May produce an allergic reaction  
Keep out of the reach of children

## MATERIAL INFORMATION

### TECHNICAL DATA PART A

#### **Part A - Section 1: Identification of the substance/mixture and of the company/undertaking**

##### **1.1 Product Identifier**

Trade name: Premierbond 2PT

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

Use of substance / mixture: Component for polyurethane systems

#### **Section 2: Hazards identification**

##### **2.1 Classification of the substance or mixture**

Classification under CLP: This product has no classification under CLP

##### **2.2 Label elements**

This product has no label elements

##### **2.3 Other hazards**

PBT: This product is not identified as a PBT/vPvB substance

#### **Section 3: Composition/information on ingredients**

##### **3.2 Mixtures**

Contains: Hydroxylated polyols and non-reactive additives. Ingredients not listed are classified as non-hazardous or at a concentration below reportable levels.

#### **Section 4: First aid measures**

##### **4.1 Description of first aid measures**

Skin contact: Wash immediately with plenty of soap and water

Eye contact: Bathe the eye with running water for 15 minutes. Seek medical attention if irritation persists

Ingestion: Wash out mouth with water. Do not induce vomiting. Consult a doctor

Inhalation: Move to fresh air. In the event of symptoms seek medical advice

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

Skin contact: There may be mild irritation at the site of contact

Eye contact: There may be irritation and redness

Ingestion: There may be irritation of the throat

Inhalation: No symptoms

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

Immediate / special treatment: Not applicable

## MATERIAL INFORMATION

### TECHNICAL DATA PART A

#### **Section 5: Fire-fighting measures**

##### **5.1 Extinguishing media**

Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers

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

**Exposure hazards:** In combustion emits toxic fumes

##### **5.3 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 TDS for personal protection details. Turn leaking containers leak-side up to prevent the escape of liquid

##### **6.2 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

##### **6.4 Reference to other sections:** Refer to section 8 of the TDS

#### **Section 7: Handling and storage**

##### **7.1 Precautions for safe handling**

**Handling requirements:** Ensure there is sufficient ventilation of the area. Avoid direct contact with the substance. Protect against moisture

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

**Storage conditions:** Keep container tightly closed. Recommended storage temperature: 15-25°C. Protect from frost/do not freeze. Avoid contact with water or humidity

##### **7.3 Specific end use(s):** No data available

#### **Section 8: Exposure controls/personal protection**

##### **8.1 Control parameters**

**Workplace exposure limits:** No data available

**DNEL/PNEC:** No data available

## MATERIAL INFORMATION

### TECHNICAL DATA PART A

#### **Section 8: Continued**

##### **8.2 Exposure controls**

**Respiratory protection:** Respiratory protection not required

**Hand protection:** Protective gloves

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

**Skin protection:** Protective clothing

#### **Section 9: Physical and chemical properties**

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

State	Liquid
Colour	Beige
Odour	Perceptible odour
Evaporation rate	Negligible
Oxidising	Non-oxidising (by EC criteria)
Solubility in water	Insoluble
Viscosity	Highly viscous
Boiling point/range °C	>195°C
Melting point/range °C	No data available
Flammability limits %:	
Lower	No data available
Upper	No data available
Flash point °C	>185°C
Part.coeff. n-octanol/water	No data available
Autoflammability	No data available
Vapour pressure	3 hPa @ 20 Deg C
Relative density	1.72
VOC g/l	No data available

##### **9.2 Other information:** No data available

#### **Section 10: Stability and reactivity**

##### **10.1 Reactivity:** Stable under recommended transport or storage conditions

##### **10.2 Chemical stability:** Stable under normal conditions

##### **10.3 Possibility of 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:** Heat. Moist air. Humidity

##### **10.5 Incompatible materials**

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

##### **10.6 Hazardous decomposition products:** In combustion emits toxic fumes

## MATERIAL INFORMATION

### TECHNICAL DATA PART A

#### **Section 11: Toxicological information**

##### **11.1 Information on toxicological effects**

**Toxicity values:** No data available

**Symptoms / route of exposure**

**Skin contact:** There may be mild irritation at the site of contact

**Eye contact:** There may be irritation and redness

**Ingestion:** There may be irritation of the throat

**Inhalation:** No symptoms

#### **Section 12: Ecological information**

##### **12.1 Toxicity**

**Exotoxicity values:** No data available

**12.2 Persistence and degradability:** No data available

**12.3 Bioaccumulative potential:** No data available

**12.4 Mobility in soil:** Insoluble in water

##### **12.5 Results of PBT and vPvB assessment**

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

**12.6 Other adverse effects:** Negligible ecotoxicity

#### **Section 13: Disposal considerations**

##### **13.1 Waste treatment methods**

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

#### **Section 14: Transport information**

##### **14.1 Transport class**

This product does not require a classification for transport

#### **Section 15: Regulatory information**

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

**Specific regulations:** Not applicable

**15.2 Chemical Safety Assessment:** A chemical saftey assessment has not been carried out for the substance or the mixture by the supplier

## MATERIAL INFORMATION

### TECHNICAL DATA PART A

#### **Section 16: Other information**

##### **Other information**

This technical data sheet is prepared in accordance with Commission Regulation (EU) No 2015/380

\*indicates text in the TDS which as changed since the last revision.

Depending on the production parameters, any uncovered surfaces of thermoset moldings produced using this raw material may contain traces of substances (e.g. starting and reaction products, catalysts, release agents) with hazardous characteristics.

Skin contact with traces of these substances must be avoided. When demolding or otherwise handling freshly molded thermoset parts, protective textile gloves must be worn as a minimum.

##### **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. Direct Cladding shall not be held liable for any damage resulting from handling or from contact with the above product.

## MATERIAL INFORMATION

### TECHNICAL DATA PART B

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

##### **1.1 Product Identifier**

Trade name: Premierbond 2PT

Relevant identified uses of the substance or mixture and uses advised against

Use of substance / mixture: Di-/polyisocyanate components for the production of polyurethanes.

#### **Section 2: Hazards identification**

##### **2.1 Classification of the substance or mixture**

Classification under CLP:

Eye Irrit. H319; Acute Tox. 4: H332; Carc. 2: H351; Resp. Sense. 1: H334, Skin Irrit. 2: H315; Skin Sens. 1: H317; STOT RE 2: H373; STOT SE 3: H335; -: EUH204

##### **Most important adverse effects:**

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful if inhaled. May cause respiratory irritation. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure. Contains isocyanates. May produce an allergic reaction.

##### **2.2 Label elements**

##### **Hazard statements:**

H315: Causes skin irritation

H317: May cause an allergic skin reaction

H319: Causes serious eye irritation

H332: Harmful if inhaled

H334: May cause allergy of asthma symptoms or breathing difficulties if inhaled

H335: May cause respiratory irritation

H351: Suspected of causing cancer

H373: May cause damage to organs through prolonged or repeated exposure

EU204: Contains isocyanates. May produce an allergic reaction

##### **Hazard pictograms:**

GHS07: Exclamation mark

GHS08: Health hazard



##### **Singal words:**

Danger

##### **Precautionary statements:**

P260: Do not breath dust/fumes/gas/mist/vapours/spray

P280: Wear protective gloves/protective clothing/eye protection/face protection

P302+352: IF ON SKIN: Wash with plenty of water/soap

P304+340: IF INHALED: Remove person to fresh air and keep 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

P312: Call a POISON CENTER / doctor if you feel unwell.

## MATERIAL INFORMATION

### TECHNICAL DATA PART B

#### Section 2: Continued

**2.3 Other hazards:** Danger of serious damage to health by prolonged exposure  
**PBT:** This product is not identified as a PBT/vPvB substance

#### Section 3: Composition/information on ingredients

##### 3.1 Mixtures

**Hazardous ingredients:** DIPHENYLMETHANE DIISOCYANATE (ISOMERS AND HOMOLOGUES) - REACH  
registered number(s): EXEMPT - REACH POLYMER

EINECS	CAS	PBT/WEL	CLP Classification	Percent
-	9016-87-9	-	Carc. 2: H351; Acute Tox. 4: H332; STOT RE 2: H373; Eye Irrit. 2: H319; STOT RE 3: H335; Skin Irrit. 2: H315; Resp. Sens. 1: H334; Skin Sens. 1: H317	90%

#### 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

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

**Ingestion:** Wash out mouth with water. Do not induce vomiting. 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. An itchy rash may occur 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. Harmful by inhalation

##### 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:** Suitable extinguishing media for the surrounding fire should be used.  
Use water spray to cool containers

##### 5.2 Special hazards arising from the substances or mixtures

**Exposure hazards:** In combustion emits toxic fumes

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

## MATERIAL INFORMATION

 TECHNICAL DATA PART B

**Section 6:**  
**Accidental release measures**
**6.1 Personal precautions, protective equipment and emergency procedures**

**Personal precautions:** Refer to section 8 of the TDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid

**6.2 Environmental precautions:** Do not discharge into drains or rivers. Contains the spillage using bonding

**6.3 Methods and material for containment and cleaning up**

**Clean-up procedures:** Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method

**6.4 Reference to other sections:** Refer to section 8 of TDS

**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

**7.2 Conditions for safe storage, including and incompatibilities**

**Storage conditions:** Keep container tightly closed. Recommended storage temperature: 15-25°C. Protect from frost/do not freeze. Avoid contact with water or humidity

**7.3 Specific end use(s)**

No further relevant information available

**Section 8:**  
**Exposure controls/personal protection**
**8.1 Control parameters**

**Hazardous ingredients:** DIPHENYLETHANE DIISOCYANATE (ISOMERS AND HOMOLOGUES)

Workplace exposure limits:

State	8 hour TWA	15 min. STEL	CLP Classification	Percent
UK	0.02 mg/m <sup>3</sup>	0.07 mg/m <sup>3</sup>	-	-

DNEL / PNEC: No data available

## MATERIAL INFORMATION

### TECHNICAL DATA PART B

#### Section 8: Continued

##### 8.2 Exposure controls

**Engineering measures:** Ensure there is sufficient ventilation of the area

**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

**Skin protection:** Protective clothing

#### Section 9: Physical and chemical properties

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

State	Liquid
Colour	Brown
Odour	Perceptible odour
Evaporation rate	Negligible
Oxidising	Non-oxidising (by EC criteria)
Solubility in water	Insoluble
Viscosity	Oily
Boiling point/range °C	330°C
Melting point/range °C	No data available
Flammability limits %: lower Upper	No data available
Flash point °C	No data available
Part.coeff. n-octanol/water	No data available
Autoflammability °C	>500°C
Relative density	1.23
pH	N/A
VOC g/l	No data available

##### 9.2 Other information: No data available

## MATERIAL INFORMATION

### TECHNICAL DATA PART B

#### **Section 10: Stability and reactivity**

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

**10.2 Chemical stability:** Stable under normal conditions

**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:** Heat. Moist air. Humidity

**10.5 Incompatible materials**

**Materials to avoid:** Strong oxidising agents. Strong acids. Alcohols. Amines. Water. On contact with water, gaseous decomposition products are formed, which cause build-up of pressure in tightly closed containers. Risk of bursting. Reacts with substances which contain active hydrogen

**10.6 Hazardous decomposition products:** In combustion emits toxic fumes

#### **Section 11: Toxicological information**

**11.1 Information on toxicological effects**

Hazardous ingredients:

#### **DIPHENYLMETHANE DIISOCYANATE (ISOMERS AND HOMOLOGUES)**

ORL	RAT	LD50	49	gm/kg
SKN	RBT	LD50	>9400	mg/kg

#### **Relevant hazards for product:**

Hazard	Route	Basis
Acute toxicity (ac. tox. 4)	INH	Hazardous: calculated
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated
Respiratory/skin sensitisation	INH DRM	Hazardous: calculated
Carcinogenicity	-	Hazardous: calculated
STOT-single exposure	INH	Hazardous: calculated
STOT-repeated exposure	-	Hazardous: calculated

## MATERIAL INFORMATION

### TECHNICAL DATA PART B

#### Symptoms / routes of exposure

**Skin contact:** There may be irritation and redness at the site of contact. An itchy rash may occur 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 wheezing. Harmful by inhalation

#### Section 12:

##### **Ecological information**

###### 12.1 Toxicity

**Ecotoxicity values:** No data available

**12.2 Persistence and degradability:** No data available

**12.3 Bioaccumulative potential:** No data available

**12.4 Mobility in soil:** Insoluble in water

**12.5 Results of PBT and vPvB assessment PBT identification:** This product is not identified as a PBT/vPvB substance

**Other adverse effects:** Negligible exotoxicity

#### Section 13:

##### **Disposal considerations**

###### 13.1 Waste treatment methods:

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

**Waste code number:** 07 02 08

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

#### Section 14:

##### **Transport information**

**Transport class:** This product does not require a classification for transport

#### Section 15:

##### **Regulatory information**

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

**Specific regulations:** Not applicable

**15.2 Chemical Safety Assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier

## MATERIAL INFORMATION

### TECHNICAL DATA PART B

#### Section 16: Other information

##### Other information

This safety data sheet is prepared in accordance with Commission Regulation (EU) No 2015/830

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

##### Phrases used in s.2 and s.3

EUH204: Contains isocyanates. May produce an allergic reaction

H315: Causes skin irritation

H317: May cause an allergic skin reaction

H319: Causes serious eye irritation

H332: Harmful if inhaled

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled

H335: May cause respiratory irritation

H351: Suspected of causing cancer <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>

H373: May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>

##### 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. Direct Cladding shall not be held liable for any damage resulting from handling or from contact with the above product.



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