

## Safety data sheet according to 1907/2006/EC, Article 31

Printing date 30.09.2022

Revision: 30.09.2022

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

· **1.1 Product identifier**

· **Trade name:** ZQ9h QUARTZ NANO [GLASS COATING] COATING

· **Article number:** ZIR525030

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

· **Sector of Use**

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

· **Application of the substance / the mixture** Coating

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Concept Chemicals & Coatings Ltd.  
Felt Court, Windmill Lane Ind.Estate  
Denton, Manchester M34 3RB England  
Tel 00 44 (0)161 335 0213  
Fax 00 44 (0)161 335 0214

· **Further information obtainable from:**

Concept Chemicals & Coatings  
Ltd. Felt Court, Windmill Lane Ind.Estate Denton,  
Manchester M34 3RB England  
Tel 00 44 (0)161 335 0213  
Fax 00 44 (0)161 335 0214  
kenny@conceptchemicals.com

· **1.4 Emergency telephone number:**

During working hours GMT 09.00 - 17.00  
Tel: 0044 (0)161 335 0213  
Fax: 0044 (0)161 335 0214

### SECTION 2: Hazards identification

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

· **Classification according to Regulation (EC) No 1272/2008**



flame

Flam. Liq. 3      H226 Flammable liquid and vapour.



corrosion

Skin Corr. 1A      H314 Causes severe skin burns and eye damage.

Eye Dam. 1      H318 Causes serious eye damage.

Aquatic Chronic 3      H412 Harmful to aquatic life with long lasting effects.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the GB CLP regulation.

· **Hazard pictograms** GHS02, GHS05

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- **Signal word** *Danger*
- **Hazard-determining components of labelling:**  
Organic polysilazane compound  
3-aminopropyltriethoxysilane
- **Hazard statements**  
H226 *Flammable liquid and vapour.*  
H314 *Causes severe skin burns and eye damage.*  
H412 *Harmful to aquatic life with long lasting effects.*
- **Precautionary statements**  
P210 *Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.*  
P260 *Do not breathe dusts or mists.*  
P303+P361+P353 *IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].*  
P305+P351+P338 *IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*  
P310 *Immediately call a POISON CENTER/doctor.*  
P321 *Specific treatment (see on this label).*  
P405 *Store locked up.*  
P501 *Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:**

541-02-6	Decamethylcyclopentasiloxane
556-67-2	octamethylcyclotetrasiloxane

· **vPvB:**

541-02-6	Decamethylcyclopentasiloxane
556-67-2	octamethylcyclotetrasiloxane

### SECTION 3: Composition/information on ingredients

· **3.2 Chemical characterisation: Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 541-02-6 EINECS: 208-764-9 Reg.nr.: 01-2119511367-43-0000	Decamethylcyclopentasiloxane Non-classified vPvB substance. Non-classified PBT substance. Substance with a Community workplace exposure limit.	25-50%
	Commercially conserved formula ⚠ Flam. Liq. 2, H225 ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319 Aquatic Chronic 3, H412	10-25%
CAS: 475645-84-2 EC number: 640-361-7	Organic polysilazane compound ⚠ Flam. Liq. 2, H225; Water-react. 3, H261 ⚠ Skin Corr. 1A, H314; Eye Dam. 1, H318 ⚠ Acute Tox. 4, H302 Aquatic Chronic 3, H412	10-25%

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CAS: 919-30-2 EINECS: 213-048-4	3-aminopropyltriethoxysilane ⚠ Skin Corr. 1B, H314 ⚠ Acute Tox. 4, H302	2.5-5%
CAS: 34590-94-8 EINECS: 252-104-2 Reg.nr.: 01-2119450011-60-0000	Dipropylene glycol monomethyl ether substance with a Community workplace exposure limit	0-2.5%
CAS: 67-56-1 EINECS: 200-659-6 Reg.nr.: 01-2119433307-44	methanol ⚠ Flam. Liq. 2, H225 ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331 ⚠ STOT SE 1, H370	0-2.5%
CAS: 556-67-2 EINECS: 209-136-7 Reg.nr.: 01-2119529238-36-0000	octamethylcyclotetrasiloxane ⚠ Flam. Liq. 3, H226 ⚠ Repr. 2, H361f ⚠ Aquatic Chronic 1, H410 PBT; vPvB	0-2.5%

· **SVHC**

541-02-6	Decamethylcyclopentasiloxane
556-67-2	octamethylcyclotetrasiloxane

· **Additional information** For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **After inhalation** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents**  
Water.  
Water with full jet.
- **5.2 Special hazards arising from the substance or mixture**  
No further relevant information available.

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- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:** Do not allow to enter sewers /surface or ground water drains.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Risk of serious damage to eyes.  
Prevent formation of vapours
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect from heat.  
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Protect from heat and direct sunlight.
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical facilities:** No further data; see item 7.

· **Ingredients with limit values that require monitoring at the workplace:**

**541-02-6 Decamethylcyclopentasiloxane**

TWA Long-term value: 10 ppm

**34590-94-8 Dipropylene glycol monomethyl ether**

WEL Long-term value: 308 mg/m<sup>3</sup>, 50 ppm  
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### 67-56-1 methanol

WEL	Short-term value: 333 mg/m <sup>3</sup> , 250 ppm
	Long-term value: 266 mg/m <sup>3</sup> , 200 ppm
Sk	

- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Respiratory protection:**  
Not necessary if room is well-ventilated.  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**  
Rubber gloves  
Protective gloves.
- **Material of gloves** Natural rubber, NR
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses

## SECTION 9: Physical and chemical properties

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

#### · General Information

#### · Appearance:

<b>Form:</b>	Liquid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Ammonia-like
<b>Odour threshold:</b>	Not determined.

<b>pH-value:</b>	Not determined.
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#### · Change in condition

<b>Melting point/freezing point:</b>	undetermined
<b>Initial boiling point and boiling range:</b>	211 °C

<b>Flash point:</b>	35 °C
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<b>Flammability (solid, gaseous)</b>	Flammable.
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<b>Ignition temperature:</b>	392 °C
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<b>Decomposition temperature:</b>	Not determined.
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<b>Auto-ignition temperature:</b>	Product is not selfigniting.
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· <b>Explosive properties:</b>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· <b>Explosion limits:</b>	
Lower:	0.7 Vol %
Upper:	66.5 Vol %
· <b>Vapour pressure at 50 °C:</b>	1.8 hPa
· <b>Density at 20 °C:</b>	0.954 g/cm <sup>3</sup>
· <b>Bulk density:</b>	954 kg/m <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity:</b>	
dynamic:	Not determined.
kinematic:	Not determined.
· <b>9.2 Other information</b>	No further relevant information available.

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation**  
Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**  
Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.

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- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **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.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.  
Do not allow product to reach ground water or water course.  
Danger to drinking water if even small quantities leak into the ground.
- **12.5 Results of PBT and vPvB assessment**

· **PBT:**

541-02-6	Decamethylcyclopentasiloxane
556-67-2	octamethylcyclotetrasiloxane

· **vPvB:**

541-02-6	Decamethylcyclopentasiloxane
556-67-2	octamethylcyclotetrasiloxane

- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Do not allow product to reach ground water or water course.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

### SECTION 14: Transport information

- |   |   |
|---|---|
| · <b>14.1 UN-Number</b><br>· <b>ADR, IMDG, IATA</b>   | UN1993  |
| · <b>14.2 UN proper shipping name</b><br>· <b>ADR</b> | 1993 FLAMMABLE LIQUID, N.O.S. (Commercially conserved formula, Organic polysilazane compound) |
| · <b>IMDG, IATA</b>                                   | FLAMMABLE LIQUID, N.O.S. (Commercially conserved formula, Organic polysilazane compound)      |

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· **14.3 Transport hazard class(es)**

· **ADR, IMDG, IATA**



· **Class** 3 Flammable liquids.  
· **Label** 3

· **14.4 Packing group**

· **ADR, IMDG, IATA** III

· **14.5 Environmental hazards:** Not applicable.

· **14.6 Special precautions for user**

Warning: Flammable liquids.  
· **Hazard identification number (Kemler code):** 30  
· **EMS Number:** F-E, S-E  
· **Stowage Category** A

· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

· **Transport/Additional information:**

· **ADR**

· **Limited quantities (LQ)** 5L  
· **Excepted quantities (EQ)** Code: E1  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 1000 ml  
· **Transport category** 3  
· **Tunnel restriction code** D/E

· **IMDG**

· **Limited quantities (LQ)** 5L  
· **Excepted quantities (EQ)** Code: E1  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":**

UN 1993 FLAMMABLE LIQUID, N.O.S. (COMMERCIALY CONSERVED FORMULA, ORGANIC POLYSILAZANE COMPOUND), 3, III

### SECTION 15: Regulatory information

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

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the GB CLP regulation.

· **Hazard pictograms GHS02, GHS05**

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- **Signal word** *Danger*
- **Hazard-determining components of labelling:**  
*Organic polysilazane compound*  
*3-aminopropyltriethoxysilane*
- **Hazard statements**  
*H226 Flammable liquid and vapour.*  
*H314 Causes severe skin burns and eye damage.*  
*H412 Harmful to aquatic life with long lasting effects.*
- **Precautionary statements**  
*P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.*  
*P260 Do not breathe dusts or mists.*  
*P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].*  
*P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*  
*P310 Immediately call a POISON CENTER/doctor.*  
*P321 Specific treatment (see on this label).*  
*P405 Store locked up.*  
*P501 Dispose of contents/container in accordance with local/regional/national/international regulations.*
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** *None of the ingredients is listed.*
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** *5.000 t*
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** *50.000 t*
- **National regulations**
- **Waterhazard class:** *Water hazard class 2 (Self-assessment): hazardous for water.*
- **Other regulations, limitations and prohibitive regulations**

· **Substances of very high concern (SVHC) according to UK REACH**

541-02-6	Decamethylcyclopentasiloxane
556-67-2	octamethylcyclotetrasiloxane

- **15.2 Chemical safety assessment:** *A Chemical Safety Assessment has been carried out.*

### SECTION 16: Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Relevant phrases**  
*H225 Highly flammable liquid and vapour.*  
*H226 Flammable liquid and vapour.*  
*H261 In contact with water releases flammable gases.*  
*H301 Toxic if swallowed.*  
*H302 Harmful if swallowed.*  
*H311 Toxic in contact with skin.*  
*H314 Causes severe skin burns and eye damage.*  
*H315 Causes skin irritation.*  
*H318 Causes serious eye damage.*

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H319 Causes serious eye irritation.  
H331 Toxic if inhaled.  
H361f Suspected of damaging fertility.  
H370 Causes damage to organs.  
H410 Very toxic to aquatic life with long lasting effects.  
H412 Harmful to aquatic life with long lasting effects.

· **Department issuing SDS:** Technical Department.

· **Contact:** Mr N Wardlaw

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 3: Flammable liquids – Category 3

Water-react. 3: Substances and mixtures which in contact with water emit flammable gases – Category 3

Acute Tox. 3: Acute toxicity – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Repr. 2: Reproductive toxicity – Category 2

STOT SE 1: Specific target organ toxicity (single exposure) – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

GB