

### Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 15/02/2016 Revision date: 06/09/2023 Supersedes version of: 15/02/2016 Version: 2.0

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

#### 1.1. Product identifier

Product form Mixture : Product name Sureflow 110

UFI UGM1-X0HW-Y00F-0SP5

CAS-No. Mixture Product code 0588 Finished Good Product group

Other means of identification Alumina-Silicate Cement Bonded Castable

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

1.2.1. Relevant identified uses

Industrial/Professional use spec Industrial use Use of the substance/mixture Refractory

1.2.2. Uses advised against No additional information available

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

Resco Products (UK) Limited

Newbold Works, Melbourne Road, Lount

LE65 1PL Ashby-de-la-Zouch

**England** 

T 44 (0) 1530 222694

<u>UK.SDS@RescoProducts.com</u> - <u>www.RescoProducts.com</u>

#### 1.4. Emergency telephone number

EMERGENCY ONLY (CHEMTREC) USA & Canada 1-800-424-9300 Emergency number

Outside USA & Canada +1 703-741-5970

#### **SECTION 2: Hazards identification**

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

### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Specific target organ toxicity - Repeated exposure, Category 2 H373

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

This product contains Quartz (Fine Fraction) between 0.1 to 10% and is classified as STOT RE 2 according to criteria defined in the Regulation EC 1272/2008 and does not meet the criteria for classification as harmful according to directive 67/548/EC.

#### 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP

Hazard pictograms (CLP)



GHS08 GHS07

Signal word (CLP) Warning

Hazard statements (CLP) H373 - May cause damage to organs (respiratory system) through prolonged or repeated

exposure (if inhaled).

Precautionary statements (CLP) P260 - Do not breathe dust.

P280 - Wear eye protection, protective gloves.

P284 - In case of inadequate ventilation wear respiratory protection.

P314 - Get medical advice/attention if you feel unwell.

#### 2.3. Other hazards

Other hazards which do not result in classification : Irritating to eyes and skin.

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component		
quartz, 1%≤conc respirable crystalline silica<10%	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
(14808-60-7)	This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	
aluminium oxide, non-fibrous (1344-28-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
	This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	
cristobalite EU (14464-46-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
	This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

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

### 3.1. Substances

Not applicable

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#### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Calcium Aluminate Cement	CAS-No.: 65997-16-2 EC-No.: 266-045-5	20 – 50	Not classified
aluminium oxide, non-fibrous	CAS-No.: 1344-28-1 EC-No.: 215-691-6	10 – 20	Not classified
quartz, 1%≤conc respirable crystalline silica<10%	CAS-No.: 14808-60-7 EC-No.: 238-878-4	1 – 5	STOT RE 1, H372
cristobalite EU	CAS-No.: 14464-46-1 EC-No.: 238-455-4	0.5 – 1	STOT RE 2, H373

Full text of H- and EUH-statements: see section 16

#### **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical

advice (show the label where possible).

First-aid measures after inhalation : Allow affected person to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Gently wash with plenty of soap and water.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse eyes with water as a precaution.

: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/effects after inhalation : May cause cancer by inhalation. Danger of serious damage to health by prolonged

exposure through inhalation.Causes skin irritation.

Symptoms/effects after skin contact : Causes skin irritation. Symptoms/effects after eye contact : Causes eye irritation.

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

No additional information available

First-aid measures after ingestion

#### **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media : In case of fire, all extinguishing media allowed.

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

Fire hazard : Not flammable.

Explosion hazard : None.

5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering

the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

#### **SECTION 6: Accidental release measures**

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

#### 6.1.1. For non-emergency personnel

Protective equipment : Safety glasses. [In case of inadequate ventilation] wear respiratory protection. Protective

gloves.

Emergency procedures : Do not breathe dust. Avoid contact with skin and eyes.

Measures in case of dust release : Ventilate area.

**6.1.2. For emergency responders** 

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area. On land, sweep or shovel into suitable containers.

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

Prevent entry to sewers and public waters.

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

Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimize the generation of dust.

#### 6.4. Reference to other sections

See Section 8. Exposure controls and personal protection.

#### **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Avoid raising

dust. Avoid contact with skin and eyes. Do not breathe dust.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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

Storage conditions : Store this product in a dry location where it can be protected from the elements.

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Incompatible materials : Strong acids, bases. 7.3. Specific end use(s) No additional information available **SECTION 8: Exposure controls/personal protection** 8.1. Control parameters 8.1.1 National occupational exposure and biological limit values quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7) **EU - Indicative Occupational Exposure Limit (IOEL) IOEL TWA** 0.1 mg/m3 (Respirable fraction) **Belgium - Occupational Exposure Limits OEL TWA** 0.1 mg/m<sup>3</sup> **France - Occupational Exposure Limits** VME (OEL TWA) 0.1 mg/m³ (La valeur limite concerne la fraction alvéolaire) **Netherlands - Occupational Exposure Limits** TGG-8u (OEL TWA) 0.075 mg/m³ (respirabele fractie) **United Kingdom - Occupational Exposure Limits** WEL TWA (OEL TWA) [1] 0.1 mg/m<sup>3</sup> **USA - ACGIH - Occupational Exposure Limits** ACGIH OEL TWA 0.025 mg/m3 (Respirable fraction) aluminium oxide, non-fibrous (1344-28-1) **Belgium - Occupational Exposure Limits OEL TWA** 1 mg/m<sup>3</sup> **France - Occupational Exposure Limits** VME (OEL TWA) 10 mg/m<sup>3</sup> **United Kingdom - Occupational Exposure Limits** WEL TWA (OEL TWA) [1] 10 mg/m<sup>3</sup> 4 mg/m<sup>3</sup> **USA - ACGIH - Occupational Exposure Limits** ACGIH OEL TWA 1 mg/m3 respirable dust cristobalite EU (14464-46-1) **Belgium - Occupational Exposure Limits OEL TWA** 0.05 mg/m<sup>3</sup> **France - Occupational Exposure Limits** VME (OEL TWA) 0.05 mg/m³ (La valeur limite concerne la fraction alvéolaire) **Netherlands - Occupational Exposure Limits** TGG-8u (OEL TWA) 0.075 mg/m³ (respirabele fractie) **United Kingdom - Occupational Exposure Limits** WEL TWA (OEL TWA) [1] 0.1 mg/m<sup>3</sup>

8.1.2. Recommended monitoring procedures

**USA - ACGIH - Occupational Exposure Limits** 

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

ACGIH OEL TWA

No additional information available

8.1.5. Control banding

No additional information available

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0.025 mg/m3 (Respirable fraction)

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#### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Provide adequate ventilation to minimize dust concentrations.

#### 8.2.2. Personal protection equipment

#### Personal protective equipment:

Avoid all unnecessary exposure.

#### 8.2.2.1. Eye and face protection

Eye protection:

Chemical goggles or safety glasses

8.2.2.2. Skin protection

### Skin and body protection:

Wear suitable protective clothing

#### Hand protection:

Wear protective gloves.

### 8.2.2.3. Respiratory protection

#### Respiratory protection:

Wear appropriate mask

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

#### **Environmental exposure controls:**

Avoid release to the environment.

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

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

Physical state Solid Colour Grey.

Appearance Granular mixture.

Odour earthy. Odour threshold Not available Melting point > 1510 °C Not available Freezing point Not available Boiling point Flammability Not flammable Lower explosion limit Not applicable Upper explosion limit Not applicable Flash point Not applicable Auto-ignition temperature Not applicable Decomposition temperature Not available Not available рΗ pH solution Not available Viscosity, kinematic Not Applicable Solubility Slightly soluble. Partition coefficient n-octanol/water (Log Kow) Not available Vapour pressure Not available Vapour pressure at 50°C Not available Density Not available Relative density Not available Relative vapour density at 20°C Not applicable

#### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

Not applicable Critical temperature

9.2.2. Other safety characteristics

No additional information available

### **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

Hydraulic setting.

Particle size

#### 10.2. Chemical stability

Stable under normal conditions of use.

### 10.3. Possibility of hazardous reactions

Not established.

#### 10.4. Conditions to avoid

Avoid dust formation.

### 10.5. Incompatible materials

Strong acids. Strong bases.

#### 10.6. Hazardous decomposition products

No additional information available.

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Not available

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SECTION 11: Toxicological information	
11.1. Information on hazard classes as define	ed in Regulation (EC) No 1272/2008
Acute toxicity (oral) : Acute toxicity (dermal) : Acute toxicity (inhalation) :	Not classified Not classified Not classified
aluminium oxide, non-fibrous (1344-28-1)	
LD50 oral rat	> 15900 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LC50 Inhalation - Rat	> 2.3 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s))
Skin corrosion/irritation : Additional information :	Not classified (Conclusive but not sufficient for classification) Causes skin irritation.
quartz, 1%≤conc respirable crystalline silica<	10% (14808-60-7)
рН	6 – 7
aluminium oxide, non-fibrous (1344-28-1)	
рН	9 – 10.5 (aqueous suspension, 33 %)
cristobalite EU (14464-46-1)	
рН	6 – 7
Calcium Aluminate Cement (65997-16-2)	
рН	≤ 13
Serious eye damage/irritation :	Not classified (Conclusive but not sufficient for classification)
Additional information :	Causes eye irritation
quartz, 1%≤conc respirable crystalline silica<	
pH	6 – 7
aluminium oxide, non-fibrous (1344-28-1)	
pH	9 – 10.5 (aqueous suspension, 33 %)
cristobalite EU (14464-46-1)	
рН	6 – 7
Calcium Aluminate Cement (65997-16-2)	
pH	≤ 13
Respiratory or skin sensitisation  Germ cell mutagenicity  Carcinogenicity  Additional information  Reproductive toxicity  STOT-single exposure  STOT-repeated exposure	Not classified (Based on available data, the classification criteria are not met)  Not classified (Based on available data, the classification criteria are not met)  Not classified (Conclusive but not sufficient for classification)  May cause cancer by inhalation.  Not classified (Based on available data, the classification criteria are not met)  Not classified (Based on available data, the classification criteria are not met)  May cause damage to organs (respiratory system) through prolonged or repeated exposure (if inhaled). (Based on available data, the classification criteria are not met)
quartz, 1%≤conc respirable crystalline silica<	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure (if inhaled).
cristobalite EU (14464-46-1)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure (if inhaled).
<u>'</u>	Not classified (Based on available data, the classification criteria are not met)
Sureflow 110 (Mixture)	N. A. B. D.
Viscosity, kinematic	Not Applicable
quartz, 1%≤conc respirable crystalline silica<	
Viscosity, kinematic	Not applicable (solid)
aluminium oxide, non-fibrous (1344-28-1)	
Viscosity, kinematic	Not applicable (solid)

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### 11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

Potential adverse human health effects and : Based on available data, the classification criteria are not met

symptoms

### **SECTION 12: Ecological information**

#### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse

effects in the environment.

Hazardous to the aquatic environment, short-term

: Not classified

Hazardous to the aquatic environment, long-term

(chronic)

: Not classified

aluminium oxide, non-fibrous (1344-28-1)	
LC50 - Fish [1]	> 100 mg/l (96 h, Salmo trutta, Literature study)
EC50 - Crustacea [1]	> 100 mg/l (48 h, Daphnia magna, Literature study)

#### 12.2. Persistence and degradability

Sureflow 110 (Mixture)	
Persistence and degradability	Not established.

#### quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)

Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

#### aluminium oxide, non-fibrous (1344-28-1)

Persistence and degradability	Not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

### cristobalite EU (14464-46-1)

Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

# 12.3. Bioaccumulative potential

Sureflow 110	(Mixture)
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Bioaccumulative potential	Not established.
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## quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)

### aluminium oxide, non-fibrous (1344-28-1)

Bioaccumulative potential No.	lo data available.
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### cristobalite EU (14464-46-1)

Bioaccumulative potential	No data available.

#### 12.4. Mobility in soil

### quartz. 1%≤conc respirable crystalline silica<10% (14808-60-7)

quarte, 1702-00110 Tooph abio dryotalinio olilota (1070 (14000 00 1)	
Surface tension	No data available in the literature
Ecology - soil	Low potential for mobility in soil.

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aluminium oxide, non-fibrous (1344-28-1)		
Surface tension	No data available in the literature	
Ecology - soil	No data available.	
cristobalite EU (14464-46-1)		
Ecology - soil	No data available.	
12.5. Results of PBT and vPvB assessment		
Component		
quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	
aluminium oxide, non-fibrous (1344-28-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	
cristobalite EU (14464-46-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	
12.6. Endocrine disrupting properties		
No additional information available		
12.7. Other adverse effects		
Additional information	: No other effects known	
<b>SECTION 13: Disposal considerations</b>		
13.1. Waste treatment methods		
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.	
Ecology - waste materials HP Code	<ul> <li>Avoid release to the environment.</li> <li>HP5 - "Specific Target Organ Toxicity (STOT)/Aspiration Toxicity:" waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause acute toxic effects following aspiration.</li> </ul>	
SECTION 14: Transport information		
In accordance with ADR / IMDG / IATA / RID		
14.1. UN number or ID number		
Not regulated for transport		
14.2. UN proper shipping name		
Proper Shipping Name (ADR) Proper Shipping Name (IMDG) Proper Shipping Name (IATA) Proper Shipping Name (RID)	<ul><li>: Not regulated</li><li>: Not regulated</li><li>: Not regulated</li><li>: Not regulated</li><li>: Not regulated</li></ul>	
14.3. Transport hazard class(es)		
ADR Transport hazard class(es) (ADR) IMDG Transport hazard class(es) (IMDG)	: Not regulated	
Transport hazard class(es) (IMDG)	: Not regulated	
Transport hazard class(es) (IATA)	: Not regulated	

Transport hazard class(es) (RID) : Not regulated

### 14.4. Packing group

Packing group (ADR) Not regulated Packing group (IMDG) Not regulated Packing group (IATA)
Packing group (RID) Not regulated Not regulated

### 14.5. Environmental hazards

: No : No Dangerous for the environment Marine pollutant

Other information No supplementary information available

### 14.6. Special precautions for user

#### **Overland transport**

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Rail transport Not regulated

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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#### **SECTION 15: Regulatory information**

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

#### 15.1.1. EU-Regulations

**REACH Annex XVII (Restriction List)** 

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

**REACH Annex XIV (Authorisation List)** 

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

**REACH Candidate List (SVHC)** 

Contains no substance(s) listed on the REACH Candidate List

**PIC Regulation (Prior Informed Consent)** 

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

**POP Regulation (Persistent Organic Pollutants)** 

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

**Explosives Precursors Regulation (2019/1148)** 

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

**Drug Precursors Regulation (273/2004)** 

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

#### 15.1.2. National regulations

#### France

Occupational diseases	
Code	Description
RG 25	Diseases resulting from the inhalation of mineral dust containing crystalline silica (quartz, cristobalite, tridymite), crystalline silicates (kaolin, talc), graphite or coal.

#### Germany

Water hazard class (WGK)

Not classified according to Regulation Governing Systems for Handling Substances

Hazardous to Waters (AwSV).

Hazardous Incident Ordinance (12. BlmSchV)

Netherlands

cristobalite EU,Calcium Aluminate Cement are listed

Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

SZW-lijst van kankerverwekkende stoffen SZW-liist van mutagene stoffen

Calcium Aluminate Cement is listed

SZW-lijst van reprotoxische stoffen – Borstvoeding

None of the components are listed

SZW-lijst van reprotoxische stoffen –

: None of the components are listed

Vruchtbaarheid SZW-lijst van reprotoxische stoffen – Ontwikkeling

: None of the components are listed

**Denmark**Danish National Regulations

Young people below the age of 18 years are not allowed to use the product

Pregnant/breastfeeding women working with the product must not be in direct contact with

the product

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

### **SECTION 16: Other information**

Other information

: In the event of any conflict between the English and other language versions, the English version shall prevail.

Full text of H- and EUH-statements:	
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2

#### Safety Data Sheet (SDS), EU

Although reasonable care has been taken in the preparation of the information contained herein, Resco extends no warranties, makes no representation and assumes no responsibilty as to the accuracy or suitability of such information for application to purchaser's intended purposes or for consequences of its use.

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