SAFETY DATA SHEET
Ö-FUGENKITT 320

Version: 21
MQM90049

The following Safety Data Sheet has been created according to the Regulation (EC) No 1272/2008 [CLP/GHS], the Regulation (EU) No 453/2010 and the Commission Regulation (EU) 2015/830 (28th of May 2015) on compilation of e-SDS.

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

1.1. Product identifier

Ö-FUGENKITT 320

1.1.1. Modification of Safety Data Sheet

Creation Date	08/09/2016 (DD/MM/YY)
Revision Date:	10/06/2020

1.1.2. SDS (Safety Data Sheet) status:

Revision

1.2. Relevant identifier uses of the substances or mixture and uses advised against:

1.2.1. Relevant identified uses:

Usages of the product according to the ECHA (European CHemical Agency) - Guidance R.12 Use descriptor system - draft version 2.0
SU10; 13+NACE C23.2+PC 10+PROC 1; 2; 3; 4; 5; 8a; 9; 13; 14; 19; 21; 22; 23; 24; 26+ERC 2; 3; 5+AC 12-1; 12-2
Unshaped refractory material
Restricted to industrial or professional users for application as safety or wear linings and maintenance of both in all industrial devices at temperatures > 1000°C.

1.2.2. Uses advised against:

None

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

1.3.1. Supplier:

EUROPEAN UNION

Calderys
43, quai de Grenelle
F-75015 Paris - France
Phone: +33 (0)1 71 76 98 82

1.3.5. E-mail:

https://customernet.calderys.com
For any precision about the content of this MSDS, please refer to the point 1.3.6.

1.3.6. National contact's name:

SDS.information@calderys.com

1.4. Emergency telephone number:

UK: The UK National Poisons Emergency number is 0870 600 6266 - (Outside the UK: +44 870 600 6266)
See enclosed annex for Emergency telephone

1.5. Opening hours (if not 24/24 h):

Non relevant.

SECTION 2: Hazards identification

2.1 Classification of the substance or the mixture:

2.1.0. Substances linked to the Classification of the product

Alpha-quartz (CSFF: Crystalline Silica Fine Fraction) - (CAS Nr. 14808-60-7)
Silicic acid, sodium salt - (CAS Nr. 1344-09-8)
Zinc oxide - (CAS Nr. 1314-13-2)

2.1.1. Classification according to Regulation:

(EC) No 1272/2008 [CLP/GHS]
Skin Irrit. 2 - Skin irritation, hazard category 2; H315: Causes skin irritation.
Eye Dam. 1 - Serious eye damage / Eye irritation, hazard category 1; H318: Causes serious eye damage.
STOT RE 2 - Specific Target Organ Toxicity (Lungs) - Repeated exposure, hazard category 2; H373: May cause damage to lungs through prolonged or repeated exposure if inhaled.
Aquatic Chronic 3 - Aquatic Chronic hazard category 3; H412: Harmful to aquatic life with long lasting effects.

2.1.3. Additional information:

For full text of H, EUH-phrases: see section 16.

2.2. Label elements:

2.2.1.2. Signal word:

Danger

2.2.2.1. Symbol(s) in black/white or colour according to the Regulation:

(EC) No 1272/2008 [CLP/GHS]
GHS08: Health hazard

2.2.8. Labelling according to the Regulation:

(EC) No 1272/2008 [CLP/GHS]
Skin Irrit. 2; H315
Eye Dam. 1; H318
STOT RE 2; H373
Aquatic Chronic 3; H412

2.2.9. GHS, Precautionary statement phrases (P)

2.2.9.1. GHS, Precautionary statements — Prevention

P260: Do not breathe dust, fumes and vapours.
P273: Avoid release to the environment.
P280: Wear protective gloves, protective clothing, eye protection and a face protection.
P284: Wear respiratory protection.

2.2.9.2. GHS, Precautionary statements — Response

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 or doctor/physician.
P332 + P313: If skin irritation occurs: Get medical advice/attention.

2.3. Other hazards:

Unknown at that date.

2.3.1. SVHC (Substance of Very High Concern):

No.

2.3.2. CMR : Carcinogenic, Mutagenic or Toxic for Reproduction

No.

2.3.3. PBT : Persistent, Bioaccumulative and Toxic

Unknown at that date.

2.3.4. vPvB: very Persistent very Bioaccumulative

Unknown at that date.

2.3.5. POP: Persistent Organic Pollutant

Unknown at that date.

2.3.6. Formation of air contaminants during hardening or processing:

No.

2.3.7. Dust explosion hazard (VDI 2263):

Unknown at that date.

SECTION 3: Composition / Information on ingredients

3.1. Substance:

3.2. Mixture:

Data linked to the pure substance or its reglementary concentration

3.2.1. Non hazardous components

Component	CAS N° / EC N°	Weight %
Alpha-quartz - REACH: Substance exempted in accordance with Annex V.7	CAS : 14808-60-7 Einecs : 238-878-4	>=50 <100

3.2.2. Hazardous components

Component	CAS N° / EC N°	Weight %
Silicic acid, sodium salt - Nr. REACH. 01-2119448725-31 Eye Dam.1; H318 - Skin Irrit.2; H315 - STOT SE 3; H335	CAS : 1344-09-8 Einecs : 215-687-4	>=10 <20
Alpha-quartz (CSFF) - REACH: Substance exempted in accordance with Annex V.7 STOT RE1; H372	CAS : 14808-60-7 Einecs : 238-878-4	>=2.5 <10
Zinc Oxide (standard) - Nr. REACH. 01-2119463881-32 Aquatic Acute 1; H 400 - Aquatic Chronic 1; H410	CAS : 1314-13-2 Einecs : 215-222-5	>=1 <2.5

3.2.3. Additionnal safety information:

A European Binding OEL (Occupational Exposure Limit) for respirable crystalline silica dust is set at 0.1 mg/m3 in the Directive (EU) 2017/2398, measured as an 8-hour TWA (Time Weighted Average).

SECTION 4: First aid measures

4.1. Description of first aid measures

4.1.1. Eyes:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

4.1.2. Skin:

If skin irritation or rash occurs: Get medical advice/attention.
After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.

4.1.3. Ingestion:

Due to the physical form of the product, ingestion is considered an unlikely route of entry.
If swallowed, rinse mouth with water (only if the person is conscious).
If swallowed, drink copious amount of water (at least 0,5 liter), provided fresh air and seek medical advice immediately.

4.1.4. Inhalation:

If there is a sensation of nausea or dizziness, remove to fresh air and seek medical attention.
IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

Stinging to eyes
Redness, tearing.
Severe causticity with the possibility of severe ocular lesions
Difficulty to breathe.
Dust may cause temporary irritation of upper respiratory tract and slight irritation of eyes and nose
Causes moderate skin irritation.

SECTION 5: Fire-fighting measures

5.0. General Information:

The product is non-combustible. Use fire-extinguishing media appropriate for surrounding materials.

5.1. Extinguishing media

5.1.1. Suitable fire-fighting methods :

In case of fire use water based extinguishers or hosepipe.

5.1.2. Unsuitable extinguishing media:

Non relevant.

5.2. Special hazards arising from the substance or mixture

In standard storage conditions, non-combustible, non-explosive and non-flammable.
Causes damage to organs (Lungs) through prolonged or repeated exposure if inhaled.
May cause damage to lungs through prolonged or repeated exposure if inhaled.
Causes skin irritation.
Causes serious eye damage.

5.2.1. Hazardous decomposition products

None

5.3. Advice for firefighters

5.3.1. Personal precautions:

Personal precautions : see Section 8.
Fire fighter clothing according to European standard EN469.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

6.1.1.1. Protective equipment:

Personal precautions : see Section 8.

6.1.1.2. Emergency procedures

Avoid breathing vapour and contact with skin and eyes. Wear recommended personal protective equipment.

6.1.2. For emergency responders

Avoid breathing vapour and contact with skin and eyes. Wear recommended personal protective equipment.

6.2. Environmental precautions

Prevent access to water table, running or stagnant water, or drains.

6.3. Methods and material for containment and cleaning up

6.3.1. Appropriate containment techniques may include any of the following:

6.3.1. - (a) bunding, covering of drains;

Non relevant.

6.3.1. - (b) capping procedures.

Non relevant.

6.3.2. Appropriate advices on how to clean-up a spill. Appropriate clean-up procedures may include any of the following:

6.3.2. - (a) neutralisation techniques;

Non relevant.

6.3.2. - (b) decontamination techniques;

Non relevant.

6.3.2. - (c) adsorbent materials;

Non relevant.

6.3.2. - (d) cleaning techniques;

Avoid dust formation.
Sweep spilled substance; eliminate waste water in accordance with regulation

6.3.2. - (e) vacuuming techniques;

Remove by vacuum cleaner or mechanical means.

6.3.2. - (f) equipment required for containment/clean-up (include the use of non-sparking tools and equipment where applicable).

Collect the spillage in closable, corrosion resistant, suitable disposal containers.

6.3.3. Other information relating to spills and releases:

6.3.3.1. Non allowed techniques:

Non relevant.

6.4. Reference to other sections

6.4.1. References:

Personal precautions : see Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling:

7.1.1. Protective measures:

7.1.1.- (a) Measures to prevent fire:

Non relevant.

7.1.1.- (b) Measures to prevent aerosol and dust generation:

Avoid bulk handling susceptible to create dust.
It is recommended to arrange all work procedures in such a way that the following points are excluded: Dust formation - Dust deposits - Inhalation of dusts / particles.

7.1.1.- (c) Measures to protect environment:

Prevent access to water table, running or stagnant water, or drains.

7.1.2. Advice on general occupational hygiene:

When using do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities:

7.2.1. Technical measures and storage conditions:

Engineering measures,such as local dust extraction, to ensure compliance with Occupational Exposure Limits.
Avoid dust formation.
In case of insufficient ventilation, wear suitable respiratory equipment. Your supplier can advise you on safe handling, please contact him.
Avoid bulk handling susceptible to create dust.
Stacking height: up to 2 pallets maximum.
Clean area frequently to avoid buildup of dust

7.2.2. Recommended packing:

Multi-ply paper sacks or big-bags.
Plastic shrink or cling film.
Wooden pallet with shrink film.

Always keep the main pallet label

7.2.3. Requirements for storage rooms and vessels:

Store in dry conditions
Store the bagged products in a way preventing accidental bursting.
Do not store outside.
Avoid contact with incompatibles mentioned under item 10

7.2.4. Storage class (national):

Unknown at that date.

7.2.5. Further information on storage conditions:

Always keep in the original packaging.

SECTION 8: Exposure controls/personal protection

8.0. General Information:

Technical measures and the application of appropriate working methods take precedence over the use of personal protective equipment.

8.1. Control parameters

Substance	CAS N° / EC N°		L.T.E - 8 hr TWA mg/m3
Alpha-quartz - REACH: Substance exempted in accordance with Annex V.7	CAS : Einecs :	14808-60-7 238-878-4	0.1
Silicic acid, sodium salt - Nr. REACH. 01-2119448725-31 Eye Dam.1; H318 - Skin Irrit.2; H315 - STOT SE 3; H335	CAS : Einecs :	1344-09-8 215-687-4	No data
Alpha-quartz (CSFF) - REACH: Substance exempted in accordance with Annex V.7 STOT RE1; H372	CAS : Einecs :	14808-60-7 238-878-4	0.075
Zinc Oxide (standard) - Nr. REACH. 01-2119463881-32 Aquatic Acute 1; H 400 - Aquatic Chronic 1; H410	CAS : Einecs :	1314-13-2 215-222-5	2

8.2. Exposure Controls:

The chart above mentionnes the lowest exposure limit values known in the EU for each substance.
All the values indicated in the chart above are available in the (Worldwide) GESTIS database: http://limitvalue.ifa.dguv.de/
Some values, not indicated in the GESTIS database, are coming from list placed in the 3 European directives dedicated to indicative occupational exposure limit values. Please find below their references.
1st list: DIRECTIVE 2000/39/EC / 2nd list: DIRECTIVE 2006/15/EC / 3rd list: DIRECTIVE 2009/161/EU
Approved Occupational Exposure values indicated for total inhalable and/or respirable dust according to GESTIS.
Customers are advised to check the limit values indicated , that could have been up-dated (in GESTIS) since the creation of this SDS.
A European Binding OEL (Occupational Exposure Limit) for respirable crystalline silica dust is set at 0.1 mg/m3 in the Directive (EU) 2017/2398, measured as an 8-hour TWA (Time Weighted Average).
Contains some substances without any approved Occupational Exposure values

8.2.0. DNEL (Derived no effect level)

Workers
Acronyms used in the following sentences.
DDD = DNEL Short Term exposure - Acute effect - Local
ROEX = Route of Exposure
INH = Inhalation dose in mg/m3
DERM = Dermal exposition in mg/kg bodyweight

8.2.0.1. Substance:

Silicic acid, sodium salt - CAS Nr.1344-09-8 - Einecs Nr.215-687-4 - DDD; ROEX; DERM = 1,59 - INH = 5,61

8.2.1. Appropriate engineering controls

Provide appropriate exhaust ventilation and filtering at the places where dust can be generated.
Provide adequate ventilation, including appropriate local extraction, to ensure that the defined workplace exposure limit is not exceeded.

8.2.2. Individual protection measures, such as personal protective equipment

8.2.2.1. Good occupational hygiene practices

Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.
For details about the following HS personal devices, please see the annex dedicated to. (Section .17)

8.2.2.2. Personal Protective Equipment

8.2.2.2. (a) Eye/face protection

Wear safety glasses with lateral protection (166 rev. S4KN2)

8.2.2.2. (b) Skin protection

Standard industrial clothing is suitable for installations at ambient temperatures (ISO 6942)
Do not shake the working clothes. Do not remove dust with compressed air.

8.2.2.2. (c) Hands:

Suitable material for gloves: Nitrile rubber (NBR) - Natural rubber (NR) - Neoprene
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

8.2.2.2. (d) Respiratory protection

Maintain adequate ventilation whenever dust is present.
Consult the local reglementation.
Wear appropriete anti-dust mask (EN149:2009 FFP3)
Use a filtering respiratory device, in case of airbone concentrations are expected to exceed exposure limits.

8.2.3. Environmental exposure controls

Prevent access to water table, running or stagnant water, or drains during installation or during washing the tools used for installation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Name of the characteristic	Value
Appearance:	Dry mixture of aggregates and fine powders
Color:	Grey
Odour:	No particular odour
Vapour density:	Non relevant.
pH:	Unable to determine. Mixture of dry minerals.
Segregation:	Non relevant.
Boiling point:	Non relevant.
Flash point:	Non relevant.
Inflammability:	No.
Explosive properties:	No.
Combustive properties:	No.
Solubility solvent:	No.
Partition coefficient n-octanol/water:	Non relevant.
Viscosity:	Non relevant.
Hydrosolubility:	Lower than 20%

9.2.Other informations:

All non relevant data are linked to the nature of our products - mineral mixtures.

SECTION 10: Stability and reactivity

10.1. Reactivity

Yes, during first heating of the product

10.2. Chemical stability

Chemically stable refractory product

10.3. Possibility of hazardous reactions

Chemically stable refractory product
No hazards to our knowledge

10.4. Conditions to avoid

No hazards to our knowledge
Chemically stable refractory product

10.5. Incompatible materials

No hazards to our knowledge
Chemically stable refractory product

10.6. Hazardous decomposition products

None

SECTION 11: Toxicological information

Substance	CAS N° / EC N°	
Silicic acid, sodium salt - Nr. REACH. 01-2119448725-31	CAS :	1344-09-8
Eye Dam.1; H318 - Skin Irrit.2; H315 - STOT SE 3; H335	Einecs :	215-687-4
Alpha-quartz (CSFF) - REACH: Substance exempted in accordance with Annex V.7	CAS :	14808-60-7
STOT RE1; H372	Einecs :	238-878-4
Zinc Oxide (standard) - Nr. REACH. 01-2119463881-32	CAS :	1314-13-2
Aquatic Acute 1; H 400 - Aquatic Chronic 1; H410	Einecs :	215-222-5

11.1. Information on toxicological effects.

11.1.1. Substances.

Non relevant.

11.1.2. Mixtures.

11.1.2.1. The relevant effects classes for which information shall be provided, are:

11.1.2.1. - (a) acute toxicity:

Non relevant.

11.1.2.1. - (b) skin corrosion/irritation:

Irritating to skin.
Skin irritation, hazard category 2

11.1.2.1. - (c) serious eye damage/irritation:

Risk of serious damage to eyes.
Serious eye damage, hazard category 1

11.1.2.1. - (d) respiratory or skin sensitisation:

Non relevant.

11.1.2.1. - (e) germ cell mutagenicity:

Non relevant.

11.1.2.1. - (f) carcinogenicity:

Non relevant.

11.1.2.1. - (g) reproductive toxicity:

Non relevant.

11.1.2.1. - (h) STOT-single exposure:

Non relevant.

11.1.2.1. - (i) STOT - repeated exposure:

Harmful: danger of serious damage to health by prolonged exposure through inhalation.
Specific Target Organ Toxicity - Repeated exposure, hazard category 2

11.1.2.1. - (j) aspiration hazard:

Non relevant.

11.1.2.2.1. GHS: Germ cell mutagenicity - Carcinogenicity - Reproductive toxicity

Non relevant.

11.1.2.3. Other health effects of the mixture.

The mixture wasn't tested as whole, read the information given for the substances used.

SECTION 12: Ecological information

12.1. Toxicity

The following points are theoretical conclusions:

12.1.1. Air:

Non relevant.

12.1.2. Water:

Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Prevent access to water table, running or stagnant water, or drains.
Harmful to aquatic life with long lasting effects.

12.1.2.0 Toxicity linked to fishes, Daphnia, Other aquatic invertebrates, Bacteria, Algae:

Acronyms used in the following sentences.
TOF LC50 = Toxicity on fish LC50
TDOAI EC50 = Toxicity to daphnia and other aquatic invertebrates (EC50)
TDOAI NOEC = Toxicity to daphnia and other aquatic invertebrates NOEC
TTA EC50 = Toxicity to algae EC50

12.1.2.1 Substance:

Silicic acid, sodium salt - CAS Nr.1344-09-8 - Einecs Nr.215-687-4 - TOF LC50 = [1108 mg/l; 96 h] - Test unknown - [Fish: Danio Rerio] / TDOAI EC50 = [1700 mg/l; 48 h] - Test unknown - [Water flea: Daphnia magna] / TDOAI NOEC = [3480 mg/l; 18 h] - Test unknown - [Bacteria: Pseudomonas putida] / TTA EC50 = [207 mg/l; 72 h] - Test unknown - [Green Algae: Scenedesmus subspicatus]

12.1.2.2 PNEC : Predicted No-Effect Concentration

Acronyms used in the following sentences.
PNEC FW = PNEC Freshwater
PNEC SW = PNEC Seawater
PNEC WIR = PNEC Water intermittent release
PNEC Sd = PNEC Sediment
PNEC So = PNEC Soil
NR = Non relevant

12.1.2.3. Substance:

Silicic acid, sodium salt - CAS Nr.1344-09-8 - Einecs Nr.215-687-4 - PNEC FW: 7,5 mg / l - PNEC SW: 1 mg / l - PNEC WIR: 7,5 mg / l - PNEC Sd: NR - PNEC So: NR

12.1.3. Soil :

cf: 12.1.2.3.

12.1.4. Flora:

Unknown at that date.

12.1.5. Fauna:

Unknown at that date.

12.1.6. Bee:

Unknown at that date.

12.2. Persistence and degradability

Unknown at that date.

12.3. Bioaccumulative potential

Unknown at that date.

12.4. Mobility in soil

Unknown at that date.

12.5. Results of PBT and vPvB assessment

Non relevant.

12.6. Other adverse effects

Unknown at that date.
However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment;

SECTION 13: Disposal considerations

13.0. DIRECTIVE 2008/98/EC ON INDUSTRIAL WASTE. - Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal - UNEP

13.1. WASTE TREATMENT METHODS

Please consult local regulations and statuary European Union provisions
Used packaging should be treated in the same way as the received product
Dispose of substance in suitable containers in accordance with local, regional, national or international regulation. Do not dispose in waterways.
Recycling and disposal of packaging has to be organised in cooperation with a suitable waste disposal company. The re-use of packaging is not recommended.
Do not flush into drains or surface water

13.1.1. DISPOSAL OPERATIONS

D 9 Physico-chemical treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations numbered D 1 to D 12 (e.g. evaporation, drying, calcination, etc.)

13.1.2. RECOVERY OPERATIONS

R 5 Recycling/reclamation of other inorganic materials.

13.1.3. PROPERTIES OF WASTE WHICH RENDER IT HAZARDOUS

H 5 (Harmful): substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may involve limited health risks.
H 8 (Corrosive): substances and preparations which may destroy living tissue on contact.
H 14 (Ecotoxic): waste which presents or may present immediate or delayed risks for one or more sectors of the environment.

13.2. POTENTIAL DANGER FROM THE WASTE:

Harmful to aquatic life with long lasting effects.
Before destruction and disposal of the refractory lining, customers are adviced to evaluate any changes to the product that may be induced by the introduction of substances, or operating conditions outside the control of the Vendor

13.3. EUROPEAN LIST OF HAZARDOUS WASTES (2000/532/EC)

As this product can be used in multiple industries, all categories are potentially valid.
10 02 : Wastes from the iron and steel industry
10 02 06 : Spent linings and refractories
10 03 : Wastes from aluminium thermal metallurgy
10 03 99 : Wastes not otherwise specified
10 04 : Wastes from lead thermal metallurgy
10 04 08 : Spent linings and refractories
10 05 : Wastes from zinc thermal metallurgy
10 05 07 : Spent linings and refractories
10 06 : Wastes from copper thermal metallurgy
10 06 08 : Spent linings and refractories
10 07 : Wastes from silver, gold and platinum thermal metallurgy
10 07 06 : Spent linings and refractories
10 08 : Wastes from other non-ferrous thermal metallurgy
10 08 07 : Spent linings and refractories
10 09 : Wastes from casting of ferrous pieces
10 09 99 : Wastes not otherwise specified
10 10 : Wastes from casting of non-ferrous pieces
10 10 99 : Wastes not otherwise specified
10 11 : Wastes from manufacture of glass and glass products
10 11 08 : Spent linings and refractories
10 12 : Wastes from manufacture of ceramic goods, bricks, tiles and construction products
10 12 07 : Spent linings and refractories
10 13 : Wastes from manufacture of cement, lime and plaster and articles and products made from them
10 13 08 : Spent linings and refractories

SECTION 14: Transport information

ADR/RID/ADN class:

Non relevant to the UN classification on dangerous goods.

ICAO-TI / IATA-DGR class:

Non relevant to the UN classification on dangerous goods.

IMDG (marine) class:

Non relevant to the IMDG classification on dangerous goods.

14.1. UN number

Non relevant.

14.2. UN proper shipping name

Non relevant.

14.3. Transport hazard class(es)

Non relevant to the UN classification on dangerous goods.

14.4. Packing group:

Non relevant.

14.5. Environmental hazards:

Unknown at that date.

SECTION 15: Regulatory information

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

15.1.2. Regulation 1907/2006/EC on REACH regulation.

The classification of this product has been established according to this regulation.

15.1.3. Regulation 1272/2008/EC on the GHS/CLP, including the EU 2017/776 (10th ATP)

The classification of this product has been established according to this regulation.

15.1.4. Regulation 2015/830/EC amending Regulation (EC) No 453/2010

This SDS has been created according to this regulation.

15.1.6. Directive 2006/8/EC on CMR and hazardous substances for environment.

This product does not meet the criteria for classification in that directive.

15.1.7. Directive 94/9/EC on equipment and protective systems intended for use in potentially explosive atmospheres (ATEX 95)

This product does not meet the criteria for classification in that directive.

15.1.8. Directive 1999/92/EC on minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres (ATEX 137)

This product does not meet the criteria for classification in that directive.

15.1.9. Decision No 2455/2001/EC on the list of priority substances in the field of water policy.

This product does not meet the criteria for classification in that directive.

15.1.10. MONTREAL Protocol on Substances That Deplete the Ozone Layer (7th revision)

This product does not meet the criteria for classification in that protocol: Mixture of inert minerals.

15.1.11. IBC: Institutional Biosafety Committee

This product does not meet the criteria for any biosafety classification.

15.1.12. MARPOL 73/78 (the International Convention for the Prevention of Pollution from Ships)

This product does not meet the criteria for classification in that directive.

15.1.13. STOCKHOLM convention on persistent organic pollutants (POPs)

This product does not meet the criteria for classification in that directive.

15.1.14. ROTTERDAM Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.

This product does not meet the criteria for classification in that directive.

15.1.15. Directive 96/29 EURATOM :

This product does not meet the criteria for classification in that directive.

15.2. Chemical Safety Assessment

No Chemical Safety Assessment has been completed for this product
This product doesn't require a Chemical Safety Assessment.

15.3. Occupational illness

Commission Recommendation of 19 September 2003 concerning the European schedule of occupational diseases (Text with EEA relevance) (notified under document number C(2003) 3297)

15.3.1. Diseases caused by the following chemical agents:

Non relevant.

15.3.2. Diseases caused by the following chemical agents:

- - - - .201. Skin diseases and skin cancers caused by:

Non relevant.

- - - - .301. Diseases caused by the inhalation of substances and agents not included under other headings

- - - - .301. Diseases of the respiratory system and cancers

301.11 Silicosis
301.12 Silicosis combined with pulmonary tuberculosis
301.31 Pneumoconioses caused by dusts of silicates

15.5. Other national relevant Safety, health and environmental regulations/legislation specific for the substance or mixture:

15.5.- (a) TA Air/TA Luft (German Technical Instructions on Air Quality Control)

Contains: Alpha-quartz; CAS Nr. 14808-60-7 - Total Dust including Micro Dust 5.2.1

15.5.- (b) WgK: German Water hazard class (from the Administrative Regulation on substances hazardous to water - assessment):

The product, (according to German regulation) is classified as (in the sense of 18.04.2017):
WGK 1: slightly hazardous to water (self-classification)

15.5.- (c) Technical rules for dangerous substances (Technische Regeln für Gefahrstoffe)

Non relevant.

15.5.- (d) Nomenclature of classified installations for environmental protection.

Non relevant.

15.5.- (e) Netherlands

Quartz (CAS n° 14808-60-7) is included in List B of carcinogens as Silica, respirabel stof, kristallijn in the Government Gazette of the Kingdom of the Netherlands Ministry of Social Affairs and Employment (Article 4.11 of the Working Conditions Decree, SZW list of carcinogenic substances and processes)

15.5.- (f) The General Water Assessment methodology (ABM) - Dutch Regulation

Non relevant.

15.5.- (g) The Dutch Emissions Directive (NeR) - Dutch Regulation

Non relevant.

15.5.- (h) Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal - UNEP

This Convention is applied in the points 13.1.1, 13.1.2. and 13.1.3.

SECTION 16: Other information

16.0. Additionnal safety information:

As announced in the Sub-section 2.1.3. find below the full text of the Hazard statement phrases (H - EUH) and Precautionary statement phrases (P) from GHS phrases indicated.

16.1. GHS Pictograms

16.1.1. Symbol(s) in black/white or colour according to the Regulation:

(EC) No 1272/2008 [CLP/GHS]

16.1.2. Labelling according to the Regulation:

(EC) No 1272/2008 [CLP/GHS]
Skin Irrit. 2; H315
Eye Dam. 1; H318
STOT RE 2; H373
Aquatic Chronic 3; H412

16.1.3. Classification according to Regulation:

(EC) No 1272/2008 [CLP/GHS]
Skin Irrit. 2 - Skin irritation, hazard category 2; H315: Causes skin irritation.
Eye Dam. 1 - Serious eye damage / Eye irritation, hazard category 1; H318: Causes serious eye damage.
STOT RE 2 - Specific Target Organ Toxicity (Lungs) - Repeated exposure, hazard category 2; H373: May cause damage to lungs through prolonged or repeated exposure if inhaled.
Aquatic Chronic 3 - Aquatic Chronic hazard category 3; H412: Harmful to aquatic life with long lasting effects.

16.1.4. Signal word:

Danger

16.1.5. GHS Hazard statement phrases (H) (linked to the product)

H315: Causes skin irritation.
H318: Causes serious eye damage.
H373: May cause damage to lungs through prolonged or repeated exposure if inhaled.
H412: Harmful to aquatic life with long lasting effects.

16.1.6. GHS Hazard statement phrases (H, EUH), linked to the product's retained substances, even if not relevant for the final classification:

H315: Causes skin irritation.
H318: Causes serious eye damage.
H335: May cause respiratory irritation.
H372: Causes damage to organs (Lungs) through prolonged or repeated exposure if inhaled.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.

16.2. GHS Precautionary statement phrases (P)

P260: Do not breathe dust, fumes and vapours.
P273: Avoid release to the environment.
P280: Wear protective gloves, protective clothing, eye protection and a face protection.
P284: Wear respiratory protection.
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 or doctor/physician.
P332 + P313: If skin irritation occurs: Get medical advice/attention.

16.5. Training:

Workers must be informed of the presence of crystalline silica and trained in the proper use and handling of this product as required under applicable regulations.

16.6. Other informations :

This safety data sheet (SDS) has been compiled according to Directive 453/2010/CE
The limits shown are from annex VI of the GHS as of 07/10/2012

16.7. Local contact for your country:

SDS.information@calderys.com

SDS status :

Modifier Modification Date : 10/06/2020

Acronyms and abbreviations used:

AAA = DNEL Long Term exposure - Chronic effect - Local

ADR: European regulation on transport of dangerous goods by road.
AOEL: Acceptable Operator Exposure Level
AOX: Adsorbable Organic Halogen
BBB = DNEL Long Term exposure - Acute effect - Local
BCF: Bioconcentration factor
BOD: Biochemical Oxygen Demand (BOD)
CAS: Chemical Abstracts Service
CCC = DNEL Short Term exposure - Chronic effect - Local
CLP : Classification, Labelling and Packaging of chemicals
CMR : Carcinogenic, Mutagenic or Toxic for Reproduction
COD: Chemical Oxygen Demand.
CSA : Chemical Safety Assessment
CSR : Chemical Safety Report
DDD = DNEL Short Term exposure - Acute effect - Local
DNEL : Derived No-Effect Level
EC: Ecotoxicity
EC50: Half maximal effective concentration
ECHA : European CHemical Agency
EINECS: European Inventory of Existing Commercial Chemical Substance.
ES : Exposure Scenario
eSDS : extended Safety Data Sheet
GefStoffV: German regulation on hazardous substances.
GHS : Global Harmonized System of classification and labelling of chemicals
GHS/CLP: Globally Harmonized System of Classification, Labelling and Packaging of chemicals
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the International Air Transport Association
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instruction by the International Air Transport Association
IMDG: International Maritime code for Dangerous Goods.
JAP-ISHA-C.O.Nr. = Japanese Industrial Safety and Health Act - Cabinet Order Nr.
JAP-PDSA-C.O.Nr. = Japanese Poisonous and Deleterious Substances Control Act - Cabinet Order Nr.
JAP-PRTR-C.O.Nr. = Japanese Pollutant Release and Transfer Register - Cabinet Order Nr.
LC50: Lethal Concentration, 50%.
LD50: Lethal Dose, 50%.
LOAEL: Lowest observed adverse effect level
MFSU: Manufacture, Formulation, Supply and Use
NEC: No effect concentration
NOEC: No Observed Effect Concentration
N.O.S. : Not Otherwise Specified
NLP : No-Longer Polymers
OECD: Organisation for Economic Co-operation and Development
PAH: Polycyclic Aromatic Hydrocarbon.
PBT : Persistent, Bioaccumulative and Toxic
PEC : Predicted Environmental Concentration
PNEC : Predicted No-Effect Concentration
PNEC Co = PNEC Coral
PNEC FW = PNEC Freshwater
PNEC Sd = PNEC Sediment
PNEC So = PNEC Soil
PNEC SW = PNEC Seawater
PNEC WIR = PNEC Water intermittent release
POP: Persistent Organic Pollutant
CSFF: Crystalline Silica Fine Fraction (according to the standard EN 481)
REACH : Registration, Evaluation, Authorisation and Restriction of CHemical substances
RID: International regulation on transport of dangerous goods by railway.
RIP : REACH Implementation Project
RMM : Risk Management Measure
ROEX = Route of Exposure
SVHC : Substance of Very High Concern
TDOAI EC50 = Toxicity to daphnia and other aquatic invertebrates (EC50)
TDOAI NOEC = Toxicity to daphnia and other aquatic invertebrates NOEC
TGD : Technical Guidance Document
ThOD: Theoretical Oxygen Demand
TOF LC50 = Toxicity on fish LC50
TOF NOEC = Toxicity on fish NOEC
TTA EC10 = Toxicity to algae EC10
TTA EC50 = Toxicity to algae EC50
TTA NOEC = Toxicity to algae NOEC
TTB EC0 = Toxicity to Bacteria (EC0)
TTB NOEC = Toxicity to Bacteria NOEC
UVCB : Substances of Unknown Variable composition, complex reaction products or Biological materials
vPvB: very Persistent very Bioaccumulative

17. Annexes:

Attached annex : Medical toxicology units
Attached annex: HS Devices - Personal protection

Annex: MEDICAL TOXICOLOGY UNITS

Australia:

1- South Australian Poisons Information Centre Women's and Children's Hospital,
72 King William Road North Adelaide SA 5006 - Tel: +61 82 04 72 22 - Fax: +61 82 04 60 49
2 - Canberra A.C.T. Poisons Information Service, Woden Valley Hospital, Garran, Yamba Drive -
Tel: +61 62443333 / +61 62852852 - Fax: +61 6244 3334

Belgique:

Brussels / Bruxelles : Centre Anti-Poisons/Antigifcentrum, Hôpital Militaire Reine Astrid, Rue Bruyn,
Brussels B -1120 - Emergency telephone: +32 70 245 245 - Fax: +32 2 264 9646

Brazil:
Centro de Informacao Toxicologica, Rua Domingos Cresencio, 132/8 andar CEP 90650-090
Porto Alegre-RS - Tel: +55 51-223-6110 - Fax: +55 51 2299067

Bulgaria - България
Национална Токсикологична информационен център, Институт за спешна медицинска "Пирогов", 21 Totleben Boulevard, 1606 София - Телефон за спешни случаи: +359 2 9154 409

Croatia - Hrvatska
Otrovi Kontrolni centar, Institut za medicinska istraživanja i medicinu rada, Ksaverska cesta 2, PP Box 291, HR-10000 Zagreb - Hitna Telefon: +385 1 234 8342

Czech Republic - česká republika
Toxikologické informační středisko, Klinika pro pracovní lékařství, 1. lékařská fakulta Univerzity Karlovy Na Bojišti 1, 128 00 Praha 2 - Nouzové telefonní číslo: +42 2 2491 9293
nebo +42 2 2491 5402 - Fax: +42 2 2491 4570

Denmark:
Giftinformationscentralen - Bispebjerg Hospital, Bispebjerg Bakke 23, 60, 1, DK-2400 København NV - Nødtelefon, offentlige: +45 82 12 12 12

España:
Servicio Nacional de Toxicologia, c/Luis Cabrera, 9 – 28002 Madrid, Tel: +34 915 62 04 20
Unitat de Toxicologia Clinica, Servicio de Urgencias, Hospital Clinic I Provincial de Barcelona, C/Villarroel, 170 , E-08036 Barcelona - Telèfon d'urgències: +34 93 227 98 33 or +34 93 227 54 00

Finland - SUOMI
Myrkytystietokeskuksen P.O.B 790 (Tukholmankatu 17), SF - 00029 HUS, Helsinki -
Puhelin: +358 9 471 977, Fax: +358 9 4717 47 02

France:
système ORFILA, tél: 33 (0)1.45.42.59.59 (24h/24h)

Germany - DEUTSCHLAND
Giftnotruf Berlin, Berliner Betrieb für Zentrale Gesundheitliche Aufgaben, Institut für Toxikologie, Oranienburger Straße 285, 13437 Berlin - Notrufnummer: +49 30 19240

Greece - ΕΛΛΆΔΑ, Αθήνα Αθηνών:
Νοσοκομείο Παίδων "Αγλαΐα Κυριακού" - 11527 Αθήνα - Τηλ: +30 1 779 3777 - Fax: +30 1748 6114

Hungary - Magyarország
Egészségügyi Toxikológiai Tájékoztató Szolgálat - 1097 Budapest, Nagyvárad tér 2.
Telefon: +36 80 20 11 99, Fax: +36 1 476 1138

India:
Poison Information Centre National Institute of Occupational Health Meghani Nagar, Ahmedabad - India 320016 - Tel: +91-272-867351 - Fax: +91-272-866630

Italia:
Roma : Centro Antiveleni, Dipartimento di Tossicologia Clinica, Universita Cattolica del Sacro Cuore, Largo Agostino Gemelli 8, I-00168 Roma - Telefono di emergenza: +39 06 305 4343

Nederland:
Rijkinstituut voor Volksgezondheid, Antonie van Leeuwenhoeklaan 9, 3720BA Bilthoven
Tel: +31 302 541 5 11 – Fax: +31 302 748 888

Norway - NORGE
Gift Informasjon, Direktoratet for Sosial-og helsedirektoratet, P.O. Box 7000, St. Olavs Plass, 0130 Oslo - Emergency telefon: +47 22 591300

Osterreich: Vergiftungsinformationszentrale
Stubenring 6, 1010 Wien - Notruf: +43 1 406 43 43 - Informationen & Anfragen: + 43 1 406 68 98 11

Poland - Polska:
Warszawa, Poison Control Warszawie i Centrum Informacji, Szpital Praski, Al. Solidarności 67, P-03 401 Warszawa
Telefon alarmowy: +48 22 619 66 54, +48 22 619 08 97

Romania:
S.O.S Vitan Birzesti 9, Sector 4, 75889 Bucureşti - Tel: +401 6 34 38 90 135 – Fax: +401 3 21 02 60
Departamentul de Toxicologie Clinică, Spitalul de Urgenta Floreasca, Calea Floreasca, Bucureşti
De telefon de urgenţă: +40 21 230 8000

RSA - South-Africa
Poison Information Centre, University of Cape Town, Department of Paediatrics and Child Health,
Red Cross War Memorial Children's Hospital, Klipfontein Road, Rondesbosch, Cape 7700,
South Africa - Tel: +27 21 658 5308 - Fax: +27 21 689 1287

Russia - Российская Федерация:
МЧС России - Центральный офис: 109012 Г.МОСКВА, ТЕАТРАЛЬНЫЙ ПР.,3 -
Телефон: (495) 449-99-99 или 122 (мобильный телефон) - Сайт: http://www.mchs.gov.ru
Исследования и прикладной токсикологии Центра (RATC) Федерального медико-биологического агентства, 3 Большая Сухаревская площадь, Блок 7, Москва 129090 -
Телефон экстренной связи: +7 495 628 16 87 (только на русском)

Slovenská republika:
Národné toxikologické informačné centrum SR :
24 – hodinová konzultačná služba pri akútnych intoxikáciách: +421 2 5477 4166
Univerzitná Nemocnica Bratislava, Limbová 5, 833 05 Bratislava - e-mail: ntic@ntic.sk
Tel: +421 2 5465 2307, Fax.: +421 2 5477 4605, Mobil: +421 911 166 066,

Sweden - SVERIGE
Svenska Giftinformationscentralen, Karolinska sjukhuset, SE-171 76 Stockholm - Telefonnummer för nödsituationer: +46 8 33 12 31 (International) 112 (Nationella)

Turkey - Türkiye
Toksikoloji Anabilim Dalı ve Zehir Merkezi, Refik Saydam Hıfzıssıhha Merkez Araştırma Enstitüsü Cemal Gürsel Cad yok. 18, Sıhhiye, Ankara 06100 - Acil telefon numarası: 0 800 314 7900 (Türkiye), veya +90 0312 433 70 01 - Faks: +90 0312 433 70 00

United Kingdom:
The UK National Poisons Emergency number is 0870 600 6266

ROUTE OF EXPOSURE			
EYES	**SKIN**	**HANDS**	**INHALATION**
Glasses with lateral protection	Clothes	Gloves	Mask
166 rev, **S**4KN2	340 rev	388 - 3111	FFP3
DEDICATED USAGE: Non labelled, cast, hydraulic bonded products, cold conditions.			
Glasses with lateral protection	Clothes	Gloves	Mask
166 rev, **S**4KN2	ISO6942	407 - 2122	FFP3
DEDICATED USAGE: Non labelled, cast, hydraulic bonded products, hot conditions.			
Face shield	Clothes	Gloves	Mask
166 rev, **F**4KN2	340 rev	388 - 3111	FFP3
DEDICATED USAGE: Non labelled, gunned, hydraulic bonded products, cold conditions.			
Face shield	Clothes	Gloves	Mask
166 rev, **F**4KN2	ISO6942	407 - 2122	FFP3
DEDICATED USAGE: Non labelled, gunned, hydraulic bonded products, hot conditions.			
Face shield	Clothes	Gloves	Mask
166 rev, **F**4KN2	340 rev	388 - 3111	FFP3
DEDICATED USAGE: Non labelled chemical bonded gunning mixes, cold installation			
Face shield	Clothes	Gloves	Mask
166 rev, **F**4KN2	ISO6942	407 - 2122	FFP3
DEDICATED USAGE: Non labelled chemical bonded gunning mixes, hot installation			
Glasses with lateral protection	Clothes	Gloves	Mask
166 rev, **S**4KN2	340 rev	388 - 3111	FFP3
DEDICATED USAGE: Labelled hydraulic bonded products, cold installation			
Glasses with lateral protection	Clothes	Gloves	Mask
166 rev, **S**4KN2	ISO6942	407 - 2122	EN 141:2000
DEDICATED USAGE: Labelled hydraulic bonded products, hot installation			
Face shield	Clothes	Gloves	Mask
166 rev, **F**4KN2	ISO6529-463	3121 - 1994	Local rules
DEDICATED USAGE: Phosphate bonded products			
Face shield	Clothes	Gloves	Mask
166 rev, **F**4KN2	ISO17491-3	3121 - 1994	Local rules
DEDICATED USAGE: Sodium silicate bonded products			
Glasses with lateral protection	Clothes	Gloves	Mask
166 rev, **S**4KN2	340 rev	388 - 3111	EN 141:2000
DEDICATED USAGE: Labelled dry mixes			
Glasses with lateral protection	Clothes	Gloves	Mask
166 rev, **S**4KN2	340 rev	388 - 3111	FFP3
DEDICATED USAGE: Non labelled dry mixes			
Glasses with lateral protection	Clothes	Gloves	Mask
166 rev, **S**4KN2	340 rev	388 - 3111	Local rules
DEDICATED USAGE: Non labelled plastics or ramming mixes			

Glasses with lateral protection	Clothes	Gloves	Mask
166 rev, **S**4KN2	340 rev	388 - 3111	FFP3
DEDICATED USAGE: Resin bonded products, cold installation.			
Glasses with lateral protection	Clothes	Gloves	Mask
166 rev, **S**4KN2	ISO6942	407 - 2122	EN 141:2000
DEDICATED USAGE: Resin bonded products, hot installation			
Glasses with lateral protection	Clothes	Gloves	Mask
166 rev, **S**4KN2	340 rev	388 - 3111	Local rules
DEDICATED USAGE: Non labelled cement, patched, sprayed or trowelled products			