

SECTION 1: Identification of the substance/mixture and of the company/undertaking
1.1. Product identifier

Product form : Substance
 Name : QUARTZ, SILICA SAND
 Trade Name : Sabbia Sferica 0,06/0,25 mm, Quarzo sferico giallo 2/4 mm, Quarzo macinato 5SN, 0/SS 40/200 micron chiaro, 40/200 micron scuro, 0/700 micron, SPECIALE, 0,1/0,3 mm, 0,1/0,5 mm, 0,2/0,67 mm, 0,3/0,5 mm, 0,4/0,8 mm, S 0/1 mm, S 0,5/1,5 mm, 0,8/1,2 mm, 1/2 mm, 1/3 mm, 3/6 mm, 6/9 mm, 10/20 mm, 20/30 mm, 30/50 mm, Sabbia Sferica FO 20, Sabbia Sferica FO 25, Beach Sand White bunker.
 EC-No. : 238-878-4
 CAS-No. : 14808-60-7
 REACH : Exempted in accordance with Annex V.7
 registration No : SiO₂
 Formula Synonyms : Silica flour, Crystalline Silica flour, Silicon dioxide flour, Quartz sand, Quartzite

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

Use of the substance/mixture : Main applications (non exhaustive list): Paints, Ceramics, Glass fibre, Adhesives, Plastics, Rubber sealants, Special concrete, Manufacture of silicon, ferrosilicon and ironoxide pellets, Production of: Cement, Concrete, Fluxing material.

1.2.2. Uses advised against

Restrictions on use : No use identified in Section 1.2. is advised against

1.3. Details of the supplier of the safety data sheet

Legal entity	Contact details
VALLI GRANULATI SRL	Telefono + 39 035/940249
Via Selva n. 20	Fax +39 035/943256
24060 Zandobbio (BG)	Mail: labo@valligranulati.it

1.4. Emergency telephone number

Emergency number : Valli Granulati Srl: +39 035 940249
 (during office hours)

SECTION 2: Hazards identification
2.1. Classification of the substance or mixture
Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

None.

2.2. Label elements
Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

Other hazards not contributing to the classification : This product is an inorganic substance and does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH. No other hazards identified.

SECTION 3: Composition/information on ingredients
3.1. Substances

Comments : Substance containing a main component.

Name	Product identifier	Conc. (% w/w)	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Quartz	(CAS-No.) 14808-60-7 (EC-No.) 238-878-4 (REACH-no) E*	> 98	Not classified
Quartz (fine fraction)	(CAS-No.) 14808-60-7 (EC-No.) 238-878-4 (REACH-no) E*	< 1	STOT RE 1, H372

Comments : * E: Exempted from REACH registration

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: No hazards which require special first aid measures.
First-aid measures after inhalation	: Move the affected person away from the contaminated area and into the fresh air.
First-aid measures after skin contact	: No special first aid measures necessary.
First-aid measures after eye contact	: Rinse with copious quantities of water and seek medical attention if irritation persists.
First-aid measures after ingestion	: No first aid measure required.

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

Symptoms/effects	: No acute and delayed symptoms and effects are observed.
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4.3. Indication of any immediate medical attention and special treatment needed

No special first aid measures necessary.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: No specific extinguishing media is needed.
Unsuitable extinguishing media	: No restriction on the extinguishing media to be used.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Not combustible.
Hazardous decomposition products in case of fire	: No hazardous thermal decomposition.

5.3. Advice for firefighters

Protection during firefighting	: No specific fire-fighting protection is required.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Avoid airborne dust generation, wear respiratory personal protective equipment in compliance with national legislation, see EN 143: 2000.
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6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

No special requirements.

6.3. Methods and material for containment and cleaning up

For containment	: Avoid dry sweeping and use water spraying or vacuum cleaning systems (with high-efficiency particulate air filter) to prevent airborne dust generation. Wear personal protective equipment in compliance with national legislation.
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6.4. Reference to other sections

See sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Avoid airborne dust generation. Provide appropriate exhaust ventilation at places where airborne dust is generated. Other suitable controls may include enclosure, isolation, water suppression, respiratory protective equipment. Handle packaged products carefully to prevent accidental bursting. If you require advice on safe handling techniques, please contact your supplier.
Hygiene measures	: Do not eat, drink and smoke in work areas; wash hands after use; remove contaminated clothing and protective equipment before entering eating areas. Shower and change clothes at end of work shift.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Minimise airborne dust generation and prevent wind dispersal during loading and unloading. Keep containers closed and store packaged products so as to prevent accidental bursting.
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7.3. Specific end use(s)

If you require advice on specific uses, please contact your supplier or check the Good Practice Guide referred to in section 16.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional information	: Follow workplace regulatory exposure limits for all types of airborne dust (e.g. total dust, respirable dust). For the equivalent limits in other countries, please consult a competent occupational hygienist or the local regulatory authority.
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Quartz (14808-60-7)

EU - Occupational Exposure Limits

Local name	Silica crystalline (Quartz)
IOELV TWA (mg/m ³)	0.1 mg/m ³ (respirable dust) - Binding OEL
Notes	(Year of adoption 2003)
Regulatory reference	Directive (EU) No. 2017/2398

Ireland - Occupational Exposure Limits

Local name	Quartz, respirable dust, (see Silica, crystalline)
OEL (8 hours ref) (mg/m ³)	0.1 mg/m ³
Regulatory reference	Code of Practice for the Chemical Agents Regulations 2018

United Kingdom - Occupational Exposure Limits

Local name	Silica
WEL TWA (mg/m ³)	0.1 mg/m ³ respirable crystalline
Regulatory reference	EH40/2005 (Third edition, 2018). HSE

8.2. Exposure controls

Appropriate engineering controls:

Minimise airborne dust generation. Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below specified exposure limits. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne particles below the exposure limit. Apply organisational measures, e.g. by isolating personnel from dusty areas. Remove and wash soiled clothing.

Personal protective equipment:

Safety glasses. Dust formation: dust mask.

Personal protective equipment symbol(s):



Hand protection:

Appropriate protection (e.g. gloves, barrier cream) is recommended for workers who suffer from dermatitis or sensitive skin. Wash hands at the end of each work session.

Eye protection:

Wear safety glasses with side-shields in circumstances where there is a risk of penetrative eye injuries.

Skin and body protection:

No specific requirement. Appropriate protection (e.g. gloves, barrier cream) is recommended for workers who suffer from dermatitis or sensitive skin.

Respiratory protection:

In case of prolonged exposure to airborne dust concentrations, wear a respiratory protective equipment that complies with the requirements of European or national legislation. The use of half or full face masks with filters against particles of category 2 or 3 (FP2 - FP3) is recommended. See EN 143: 2000 - Respiratory protective devices. Particle filters

Environmental exposure controls:

Avoid wind dispersal.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Powder, Grain shape: angular
Colour	: Grey. White
Odour	: Odourless
Odour threshold	: No data available
pH	: 5 - 8 (40% aqueous dispersion @20°C)
Melting point	: > 1610 °C
Boiling point	: 2230 - 2590 °C

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Flash point	: Not applicable (solid with a melting point 1610 °C)
Relative evaporation rate (butylacetate=1)	: Not applicable (solid with a melting point 1610 °C)
Auto-ignition temperature	: No self-heating below 400 °C (solid with a melting point 1610 °C)
Decomposition temperature	: ≈ 2000 °C
Flammability (solid, gas)	: Not flammable (not combustible)
Vapour pressure	: Not applicable (solid with a melting point 1610 °C)
Relative vapour density at 20 °C	: Not applicable
Relative density	: 2 - 3 (water=1)
Solubility	: Water: Negligible, Hydrofluoric Acid: Soluble
Log Pow	: Not applicable (solid inorganic substance)
Viscosity, kinematic	: Not applicable (solid with a melting point 1610 °C)
Viscosity, dynamic	: Not applicable (solid with a melting point 1610 °C)
Explosive properties	: Not explosive (absence of chemical groups associated with explosive properties)
Oxidising properties	: Non oxidizing (substance is incapable of reacting exothermically with a combustible material)
Explosive limits (vol %)	: Not explosive (absence of chemical groups associated with explosive properties)

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Inert, not reactive.

10.2. Chemical stability

Chemically stable.

10.3. Possibility of hazardous reactions

No hazardous reactions.

10.4. Conditions to avoid

Not relevant.

10.5. Incompatible materials

No particular incompatibility.

10.6. Hazardous decomposition products

Not relevant.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Based on available data, the classification criteria are not met. The acute oral LD50 of quartz is greater than 2000 mg/kg
Acute toxicity (dermal)	: Based on available data, the classification criteria are not met. The acute dermal LD50 of quartz is greater than 2000 mg/kg
Acute toxicity (inhalation)	: Based on available data, the classification criteria are not met. There is no specific acute toxicity data at doses that enable a categorical decision on the acute inhalation toxicity classification for any form of crystalline silica at 100%. Acute inhalation toxicity is not expected based on read across to an OECD compliant study, with a substance that contains 45% cristobalite and gives no indication of lethality. Hence further testing is not warranted in the interests of animal welfare

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LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg
Skin corrosion/irritation	: Based on available data, the classification criteria are not met. Quartz (coarse sand and milled) is not irritating to skin (OECD TG 404). pH: 5 - 8 (40% aqueous dispersion @20°C)
Serious eye damage/irritation	: Based on available data, the classification criteria are not met. Quartz (coarse sand and milled) is not irritating to eye (OECD TG 405) pH: 5 - 8 (40% aqueous dispersion @20°C)
Respiratory or skin sensitisation	: Based on available data, the classification criteria are not met. No evidence of skin sensitisation in handbook data
Germ cell mutagenicity	: Based on available data, the classification criteria are not met. Quartz has a genotoxic and mutagenic effect mainly through its inflammatory effects. Respirable quartz was unable to cause increased HPRT mutations in rat lung epithelial cells in vitro
Carcinogenicity	: Based on available data, the classification criteria are not met. Lung cancer excess risk is demonstrated only under high occupational exposures to RCS. The lung cancer excess risk is restricted to subjects who contracted silicosis

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Reproductive toxicity	: Based on available data, the classification criteria are not met. Silica is essential for normal body function and is ingested orally via the consumption of foods containing silica naturally. An early one-generation study on Wistar rats gave no evidence of any adverse effects arising from long-term feeding of silica-rich water
STOT-single exposure	: Based on available data, the classification criteria are not met. Studies available; inconclusive
STOT-repeated exposure	: This product is not classified as STOT RE according to criteria defined in the Regulation EC 1272/2008. Prolonged and/or massive exposure to respirable crystalline silica-containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of crystalline silica. There is a body of evidence supporting the fact that increased cancer risk would be limited to people already suffering from silicosis. Worker protection against silicosis should be assured by respecting the existing regulatory occupational exposure limits and implementing additional risk management measures where required (see section 16 below for more information).
Aspiration hazard	: Based on available data, the classification criteria are not met. No aspiration hazard envisaged

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not relevant
Hazardous to the aquatic environment, long-term (chronic)	: Not relevant

12.2. Persistence and degradability

Quartz (14808-60-7)

Persistence and degradability	Not relevant.
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12.3. Bioaccumulative potential

Quartz (14808-60-7)

Log Pow	Not applicable (solid inorganic substance)
Bioaccumulative potential	Not relevant. Some organisms accumulate Si(OH) ₄ .

12.4. Mobility in soil

Quartz (14808-60-7)

Mobility in soil	Negligible
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12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other adverse effects	: No specific adverse effects known.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Where possible recycling is preferred to disposal. Can be dumped in according to local regulations.
Product/Packaging disposal recommendations	: Dust formation from residues in packaging should be avoided and suitable worker protection assured. Store used packaging in enclosed receptacles. Recycling and disposal of packaging should be carried out in compliance with local regulations. The re-use of packaging is not recommended. Recycling and disposal of packaging should be carried out by an authorised waste management company.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

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14.4. Packing group

Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
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14.5. Environmental hazards

Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
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No supplementary information available

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Quartz is not on the REACH Candidate List

Quartz is not on the REACH Annex XIV List

Quartz is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Quartz is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

Exempted from REACH Registration in accordance with Annex V.7 of Regulation (EC) 1907/2006

SECTION 16: Other information

Indication of changes:

Product code. Contact details.

Data sources	: Data are based on our latest knowledge but do not constitute a guarantee for any specific product features and do not establish a legally valid contractual relationship.
Training advice	: Workers must be trained in the proper use and handling of this product as required under applicable regulations.
Third party materials	: Insofar as materials not manufactured or supplied by Valli Granulati Srl are used in conjunction with, or instead of Valli Granulati Srl materials, it is the responsibility of the customer himself to obtain, from the manufacturer or supplier, all technical data and other properties relating to these and other materials and to obtain all necessary information relating to them. No liability can be accepted in respect of the use of Valli Granulati Srl QUARTZ in conjunction with materials from another supplier.

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Social dialogue on respirable crystalline silica

: In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However it pointed out that not all industrial circumstances, nor all crystalline silica types, were to be incriminated. (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France).

In 2009, in the Monographs 100 series, IARC confirmed its classification of Silica Dust, Crystalline, in the form of Quartz and Cristobalite (IARC Monographs, Volume 100C, 2012)

In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003).

A multi-sectoral social dialogue agreement on Workers Health Protection through the Good Handling and Use of Crystalline Silica and Products Containing it was signed on 25 April 2006. This autonomous agreement, which receives the European Commission's financial support, is based on a Good Practices Guide. The requirements of the Agreement came into force on 25 October 2006. The Agreement was published in the Official Journal of the European Union (2006/C 279/02). The text of the Agreement and its annexes, including the Good Practices Guide, are available from <http://www.nepsi.eu> and provide useful information and guidance for the handling of products containing crystalline silica (fine fraction). Literature references are available on request from EUROSIL, the European Association of Industrial Silica Producers.

Health & Safety Executive

: Detailed reviews of the scientific evidence on the health effects of crystalline silica have been published by HSE (Health and Safety Executive, UK) in the Hazard Assessment Documents EH75/4 (2002) and EH75/5 (2003). The HSE points out on its website that "Workers exposed to fine dust containing quartz are at risk of developing a chronic and possibly severely disabling lung disease known as "silicosis". In addition to silicosis, there is now evidence that heavy and prolonged workplace exposure to dust containing crystalline silica can lead to an increased risk of lung cancer. The evidence suggests that an increased risk of lung cancer is likely to occur only in those workers who have developed silicosis.

Other information

: This safety data sheet (SDS) is based on the legal provisions of the REACH Regulation (EC 1907/2006; article 31 and Annex II), as amended. Its contents are intended as a guide to the appropriate precautionary handling of the material. It is the responsibility of recipients of this SDS to ensure that the information contained therein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. Information and instructions provided in this SDS are based on the current state of scientific and technical knowledge at the date of issue indicated. It should not be construed as any guarantee of technical performance, suitability for particular applications, and does not establish a legally valid contractual relationship. This version of the SDS supersedes all previous versions.

Full text of H- and EUH-statements:

STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1
H372	Causes damage to organs through prolonged or repeated exposure.

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
PBT	Persistent Bioaccumulative Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
vPvB	Very Persistent and Very Bioaccumulative
LC50	Median lethal concentration
LD50	Median lethal dose
OECD	Organisation for Economic Co-operation and Development
SDS	Safety Data Sheet

SDS EU - Valli Granulati

Disclaimer

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.