Safety Data Sheet
Safety Data Sheet (in compliance with Regulation (EC) 1907/2006

1 IDENTIFICATION OF THE PRODUCT AND THE COMPANY

1.1. Product identifier

Name: QUARTZ
Synonyms: Quartz sand; silica sand; crystalline silica sand; silicon dioxide
Chemical formula: SiO_2

Trade Names: **Si-1806 / Si-1705 / LTQ-2560 / RQ-20/40-OS / Arena 0-6 Frades / Arena 0-6 G Ladra / Arena Q-Bed Ladra / Arena 0-6 Castillo / Grava 6-12 (gravilla) Castillo / Grava 12-25 (gravillón) Castillo / Grava 5-10 Frades / Grava 10-25 Frades / Grava 5-12 Ladra / Grava 12-25 Ladra / Grava 20-40 Ladra / Arena 0-2 Salamanca / Arena 0-6 Mix Salamanca / Grava 6-8 Salamanca / Grava 8-22 Salamanca / Grava 22-25 Salamanca / Zahorra 0-25 Salamanca / Q-Sand 85D / Q-Sand 71 / Q-Sand 71148 / Q-Sand ST / Gravilla 1-2 Castillo / Q-Sand 2373 / Q-Sand 71112**

Note: Some products can be sold packed in BB and their trade name includes letters “BB” at the end.

EINECS 238-878-4
CAS 14808-60-7
Nº de registro s/. REACH: Exempted in accordance with Annex V.7

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

- Main applications (non exhaustive list):

Ferroalloys production, structural or precast concrete, mortar and grout used for buildings, roads and civil engineering works, filtration, filler and textured coatings, gardening and ornamental.

- Uses advised against:

No use identified in Section 1.2. is advised against

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

Company name: ERIMSA
Address: c/Copérnico, 7, 2º, 1A, 15006 A Coruña, Spain
N°: + 34 981228988
Fax N°: + 34 981208050
E-mail of responsible person for SDS: erimsa@erimsa.com

1.4. Emergency telephone number:

Emergency telephone number: 112
National Poison Centre telephone N°: See http://echa.europa.eu/web/guest/support/helpdesks/national-helpdesks/list-of-national-helpdesks

Emergency telephone number at Erimsa: + 34 981 22 89 88

Available outside office hours:	No
Language:	Spanish

2. HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture:

Classification according to Regulation EC 1272/2008

No classification.

2.2. Label elements

Labelling according to Regulation EC 1272/2008:

No classification.

2.3. Other hazards

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 hazard identified.

Quartz is not included in the Candidate List of substances of very high concern for Authorisation.

Quartz 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.

3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Main constituent : Quartz

Amount:	SiO_2 > 95%
EINECS:	238-878-4
CAS:	14808-60-7

3.2. Impurities : This product contains <1% quartz in its fine fraction and therefore is NOT CLASSIFIED.
No specific concentration limit (SCL) assigned.
No multiplication factor (M-factor) assigned.

4 FIRST AID MEASURES

4.1. Description of first aid measures

Eye contact: Rinse with copious quantities of water and seek medical attention if irritation persists.

Inhalation: Movement of the exposed individual from the area to fresh air is recommended.

4.2. Most important symptoms and effects both acute and delayed
No acute and delayed symptoms and effects are observed.

4.3. Indication of any immediate medical attention and special treatment needed
No specific actions are required.

5 FIRE-FIGHTING 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
Non combustible. No hazardous thermal decomposition.

5.3. Advice for firefighters
No specific fire-fighting protection is required.

6 ACCIDENTAL RELEASE MEASURES

6.1. **Personal precautions, protective equipment and emergency procedures**
Avoid airborne dust generation, wear personal protective equipment in compliance with national legislation, see EN 143:2000.

6.2. Environmental precautions
No special requirements.

6.3. Methods and material for containment and cleaning up
Avoid dry sweeping and use water spraying or vacuum cleaning systems to prevent airborne dust generation. Wear personal protective equipment in compliance with national legislation.

6.4. Reference for other sections
See sections 8 and 13.

7 HANDLING AND STORAGE

7.1. Precautions for safe handling

Depending on the type of handling and use (e.g. grinding, drying), airborne fine fraction crystalline silica may be generated. Prolonged and/or massive inhalation of fine fraction crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis.

- Protective measures

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 or check the Good Practice Guide referred to in section 16.

- Advice on general occupational hygiene

Do not to 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

Technical measures/Precautions :

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.

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.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Follow workplace regulatory exposure limits for all types of airborne dust (e.g. total dust, respirable dust, fine fraction crystalline silica dust, respirable crsitobalite).

The OEL (Occupational Exposure Limit) for fine fraction crystalline silica dust is 0.05 mg/m³ in Spain, measured as an 8 hour TWA (Time Weighted Average) according to RD1154/2020. For the equivalent limits in other countries, please consult a competent occupational hygienist or the local regulatory authority.

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).

8.2. Exposure controls

8.2.1. 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.

8.2.2. Individual protection measures, such as personal protective equipment

a) Eye / face protection:

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

b) Skin protection:

No specific requirement. For hands, see below. Appropriate protection (e.g. protective clothing, barrier cream) is recommended for workers who suffer from dermatitis or sensitive skin.

c) 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.

d) 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 3 (FFP3) is recomended. See EN 143: 2000 - Respiratory protective devices. Particle filters.

8.2.3. Environmental exposure controls

Avoid wind dispersal.

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

a)	Physical State:	Solid
b)	Colour:	grayish/white/brownish...
c)	Odour:	Odourless
d)	Odour threshold:	Not applicable
e)	pH (400 g/l water at 20℃):	5 - 8

f) Melting point/freezing point: > 1610℃

g) Initial boiling point and boiling range: Between 2230ºC and 2590ºC

h) Flash point: Not applicable (solid with a melting point >1610ºC)

i) Evaporation rate: Not applicable (solid with a melting point >1610ºC)

j) Flamability: Non famable (not combustile)

k) Explosive limits: Non explosive (absence of chemical groups associated with explosive properties)

l) Vapour pressure: Not applicable (solid with a melting point >1610ºC)

m) Vapour density: Not applicable

n) Relative density: 2 - 3 g/cm³

o) Grain shape: angular

o) Solubilities :

Solubility in water: Negligible

Solubility in hydrofluoric acid: Yes

p) Partition coefficient: n-octane/water: Not applicable (inorganic sbstance)

q) Auto-ignition temperature: No self-heating below 400ºC (solid with a melting point >1610ºC)

r) Decomposition temperature: ca 2000ºC

s) Viscosity: Not applicable (solid with a melting point >1610ºC)

t) Explosive properties: Non explosive (absence of chemical groups associate with explosive properties)

u) Oxidising properties: Not applicable (substance incapable of reacting exothermically with a combustible material)

9.2. Other information

Not applicable

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.

11 TOXICOLOGICAL INFORMATION

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

a) Acute toxicity:

The acute oral/dermal LD50 of quartz and cristobalite is greater than 2000 mg/kg.

b) Acute toxicity inhalation:

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.

c) Skin corrosion/irritation:

Quartz (coarse sand and milled) is not irritating to skin (OECD TG 404).

d) Serious eye damage/irritation:

Quartz (coarse sand and milled) is not irritating to eye (OECD TG 405).

e) Respiratory or skin sensitisation:

No evidence of skin sensitisation in handbook data.

f) Germ cell mutagenicity:

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.

g) Carcinogenicity:

Lung cancer excess risk is demonstrated only under high occupational exposures to Respirable Crystalline Silica. The lung cancer excess risk is restricted to subjects who contracted silicosis.

h) Reproductive toxicity:

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.

i) STOT-single exposure:

Studies available; inconclusive

j) 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).

k) Aspiration hazard:

No aspiration hazard envisaged

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties

Available data for the substance have been considered against the criteria laid down in Regulations ((EC) No 1907/2006, (EU) 2017/2100, (EU) 2018/605) and found not to apply

1.2.2. Other Information

None

12 ECOLOGICAL INFORMATION

12.1. Toxicity

Not relevant

12.2. Persistence and degradability

Not relevant

12.3. Bioaccumulative potential

Not relevant

12.4. Mobility in soil

Negligible

12.5. Results of PBT and vPvB assessment

Endocrine disrupting properties

Available data for the substance have been considered against the criteria laid down in Regulations ((EC) No 1907/2006, (EU) 2017/2100, (EU) 2018/605) and found not to apply

12.6. Endocrine disrupting properties

Available data for the substance have been considered against the criteria laid down in Regulations ((EC) No 1907/2006, (EU) 2017/2100, (EU) 2018/605) and found not to apply.

12.7. Other adverse effects

No specific adverse effects known.

13 DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues/unused products

Where possible, recycling is preferable to disposal. Can be disposed of in compliance with local regulations.

Packaging

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 authorized waste management company.

14 TRANSPORT INFORMATION

14.1. UN Number: Not relevant

14.2. UN proper shipping name: Not relevant

14.3. Transport hazard classes

ADR: Not classified

IMDG: Not classified

ICAO/IATA: Not classified

RID: Not classified

14.4. Packing Group: Not relevant

14.5. Environmental hazards: Not relevant

14.6. Special precautions for user: No special precautions

14.7. Maritime transport in bulk: According to IMO instrument

15 REGULATORY INFORMATION

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

International legislation/requirements:

Regulation 1907/2006 (REACh) : exempted, according to art. 2, paragraph 7. European

Directive on Dangerous Substances 67/548 : this product is not classified as dangerous. European Community Labelling : no labelling required.

15.2. Chemical safety assessment

Exempted from REACH Registration in accordance with Annex V.7.

16 OTHER INFORMATION

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.Indication of the changes made to the previous version of the SDS.

16.1 Revision

The SDS has been revised to comply with Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of REACH.

16.2 Abreviations

LD50: Medial lethal dose
PBT: Persistent bioaccumulative toxic
STOT: Specific Target Organ Toxicity
vPvB: Very persistent very bioaccumulative
OEL: Occupational exposure level
SDS: Safety data sheet

16.3 Relevant H-statments

Not applicable

16.4 Other relevant information

In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans (human carcinogen category 1). 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 received 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 respirable crystalline silica. Literature references are available on request from EUROSIL, the European Association of Industrial Silica Producers.

Works involving exposure to respirable crystalline silica dust generated by a work process are included in Directive (EU) 2017/2398 of 12 December 2017 amending Directive 2004/37/EC on the Protection of Workers from the risks related to exposure to Carcinogens or Mutagens at work.Health & Safety Executive (specific for UK):

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.”

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.