# SAFETY DATA SHEET
(in accordance with Regulation (EU) 2015/830)

# CALCIUM SILICIDE



## SECTION 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY/UNDERTAKING.

**1.1 Product identifier.**

Product Name: CALCIUM SILICIDE

**1.1.1 NºRegistered:** **Fe:** 01-2119462838-24-XXXX
**Si:** 01-2119480401-47-XXXX
**NºPre-registered:** **Ca:** 05-2114474677-32-0000 (31/05/2018)

**1.2 Relevant identified uses of the mixture and uses advised against.**

Not available.

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

Company: **ALDEBARÁN SISTEMAS SL**
Address: C/Jerónimo Zurita, 10, entlo izda, 50001
City: Zaragoza
Province: Zaragoza
Telephone: 0034976796134
E-mail: aldebaran@aldebaransistemas.com

**1.4 Emergency telephone number:** 0034915620420 (Available 24 hours)

## SECTION 2: HAZARDS IDENTIFICATION.

**2.1 Classification of the mixture.**
The product is not classified as hazardous within the meaning of Regulation (EU) No 1272/2008.

**2.2 Label elements.**
No label is necessary

**2.3 Other hazards.**
EYES: May be irritating due to mechanical abrasion. It can cause tearing and redness.
SKIN: May be irritating due to mechanical abrasion. Prolonged contact may cause redness, itching.
INGESTION: Highly unlikely route of contamination. Nausea and vomiting may appear.
SENSITIZATION: No data

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

Ferro alloy in which the silicon content defines the quality of the commercial product

| | |
|---|---|
| Si, CAS 7440-21-3 | 55% mín. |
| Ca, CAS 7440-70-2 | 27-32% |
| Al, CAS 7429-90-5 | 1,5% máx. |
| C, CAS 7440-44-0 | 1% máx. |
| P, CAS 7723-14-0 | 0,05% máx. |
| S, CAS 7704-34-9 | 0,03% máx. |
| Fe, CAS 7439-89-6 | 7,5% máx |

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## SECTION 4: FIRST AID MEASURES.

**4.1 Description of first aid measures.**

**Inhalation.**
DUST INHALATION: Supply of fresh air and rest. Remove to fresh air, free of exposure. If respiratory distress appears, place the affected person as straight as possible and provide oxygen. If the symptoms persist get medical help. If there is loss of consciousness place in recovery position. Control the pulse and breathing. If there is respiratory arrest or insufficient breathing, administer mouth-to-mouth breathing.

INHALATION IMPORTANT: Evacuate the victim to a ventilated and safe place immediately. Loosen clothing, especially neck, tie, belt, unbutton pants or loosen dress. If the breathing is difficult to supply oxygen. If the affected person does not breathe, practice mouth-to-mouth resuscitation. Seek immediate medical help.

**Eye contact.**
In case of carrying them, remove the contact lenses (if it can be done easily) rinse with plenty of water. Consult a doctor if discomfort persists.

**Skin contact.**
LIGHT CONTACT WITH SKIN: Remove contaminated clothing (Wash carefully before reuse), rinse immediately with large amount of water. Wash the skin area contaminated with running water and a non-abrasive soap gently and deeply. Be particularly careful in cleaning folds and crevices, wrinkles and groin. Cover the affected parts of the skin with an emollient that softens the skin. If irritation persists, seek medical attention.

IMPORTANT CONTACT WITH SKIN: Wash with an infectious soap or cover the area of affected skin with an antibacterial cream. Seek medical attention.

**Ingestion.**
Under normal conditions this is an unlikely pathway. Do not induce vomiting. Loosen clothing, especially neck, tie, belt, unzip pants or loosen dress. If the breathing is difficult to supply oxygen. If the affected person does not breathe, practice mouth-to-mouth resuscitation. SEEK MEDICAL HELP IMMEDIATELY.

**4.2 Most important symptoms and effects, both acute and delayed.**
In the case of dust, irritation of the respiratory tract, skin and eyes.

**4.3 Indication of any immediate medical attention and special treatment needed.**
There are no special indications except as described in section 4.1

## SECTION 5: FIREFIGHTING MEASURES.

The size grain or stone, is not combustible, flammable, or facilitates the combustion of other elements.

POWDER AND CERTAIN CONDITIONS CAN BE INFLAMMATED (see section 10) USING CO2 EXTINGUISHERS

**5.1 Extinguishing media.**
**Suitable extinguishing media:**
Class D fire, Use dry powder, dry sand or CO2 to smother the fire. If you can not suffocate, isolate and let it burn until your self-extinction.

**Unsuitable extinguishing media:**
Do not use water

**5.2 Special hazards arising from the mixture.**
**Special risks.**
Not applicable.

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**5.3 Advice for firefighters.**

**Fire protection equipment.**
Extinguishing equipment must carry adequate respiratory and protective protection.
For fires that are beyond the initial state the emergency team must wear autonomous breathing equipment and full protective clothing. Isolate the fire from the rest of the stored materials. Keep the unauthorized personnel away. If it can be done with minimum risks, refresh the affected equipment with water.

## SECTION 6: ACCIDENTAL RELEASE MEASURES.

Avoid the formation of dust during collection, which must be done in a ventilated place and that must be done dry, avoid contact with the skin or eyes. It can be collected for recovery and recycling of the product.

**6.1 Personal precautions, protective equipment and emergency procedures.**
Gloves if it is in solid form and also, in case of dust, glasses and mask.

**6.2 Environmental precautions.**
Avoid contact with the ground, water courses or drains

**6.3 Methods and material for containment and cleaning up.**
Recovery and recycling of the product. Use an industrial vacuum cleaner.

**6.4 Reference to other sections.**
See section 13.

## SECTION 7: HANDLING AND STORAGE.

**7.1 Precautions for safe handling.**
The use of contact lenses when handling industrial products may involve certain risks. Soft lenses can absorb certain irritants and concentrate them causing eye problems.
Practice careful personal hygiene, wash your hands thoroughly before eating, drinking or smoking.
The product must be kept dry to avoid the risk that it would involve adding it to a wet bath.
Treat like any solid inert product, using appropriate safety clothing and clothing (gloves, goggles and masks in case of dust)

TECHNICAL MEASURES.
Keep the containers closed. Avoid the formation of dust. Extract and mechanical ventilation if it is not possible to maintain the working atmosphere with a concentration of pollutants below the permitted exposure limits.

PRECAUTIONS: Avoid sources of strong ignition. Close the container again as soon as the desired quantity has been extracted. Avoid the use of compressed air to clean dust of this material.

**7.2 Conditions for safe storage, including any incompatibilities.**
STORAGE CONDITIONS: must be stored in a dry and ventilated place.

INCOMPATIBILITIES WITH OTHER PRODUCTS: Keep away from water and nitric and hydrochloric acids.

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

**8.1 Control parameters.**
Exposure limit IN THE WORKPLACE:

INSHT 2014:
There are no established limits for this preparation nor for its component substances.

OTHER LIMITS
Total powder: TLV / TWA = 10 mg / m3, value (A.C.G.I.H.)
Breathable fraction powder = 5 mg / m3, value (A.C.G.I.H.)
Free Silicon = 0.1 mg / m3, value (A.C.G.I.H.)

**8.2 Exposure controls.**
Some constituents of the vapors or smoke generated by this product in contact with water represent more potential risks than others depending on their intrinsic toxicity and concentration. The most worrying are hydrogen, arsine and phosphine. It would be highly advisable for a specialist in occupational risk prevention to determine whether or not there are risks arising from the professional exposure of its workers to the same depending on the form of use and its specific process.

Depending on the specific risks that may arise from the way this product is used and the corrective measures adopted, it may be necessary to implement a program to control and record the concentration of pollutants in the work atmosphere to ensure that the exposure limits are not exceeded by regular training.

In the case of the existence of dust or fumes derived from the use of the product, mechanical ventilation extraction measures will be applied preferably to the use of individual respiratory protection.

**Measures of a technical nature:**
Provide adequate ventilation, which can be achieved through good local extraction-ventilation and a good general extraction system.

| **Concentration:** | **100 %** |
|---|---|
| **Uses:** | |
| **Breathing protection:** | |
| In closed areas with high dust concentration and poor ventilation, self-contained breathing apparatus should be worn. In the case of an open-air dust atmosphere, use a mask according to EN-149 with particulate filter. | |
| **Hand protection:** | |
| Use protective gloves to avoid cuts or scratches with a metal edge. | |
| **Eye protection:** | |
| In the case of dust generation use protective goggles. | |
| **Skin protection:** | |
| PPE: | Work footwear. |
| Characteristics: | «CE» marking, category II. |
| CEN standards: | EN ISO 13287, EN 20347 |
| Maintenance: | This product adapts to the first user's foot shape. That is why, as well as for hygienic reasons, it should not be used by other people. |
| Observations: | Work footwear for professional use includes protection elements aimed at protecting users against any injury resulting from an accident |

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

**9.1 Information on basic physical and chemical properties.**
Appearance:Powder
Colour: Metallic grey
Odour:Unodourless
Odour threshold:N.A./N.A.
pH:N.A./N.A.
Melting point:900-1000 ºC
Boiling Point: N.A./N.A.
Flash point: 15 ºC
Evaporation rate: N.A./N.A.
Inflammability (solid, gas): N.A./N.A.
Lower Explosive Limit: N.A./N.A.
Upper Explosive Limit: N.A./N.A.
Vapour pressure: N.A./N.A.
Vapour density:N.A./N.A.
Relative density:2,5
Solubility:N.A./N.A.
Liposolubility: N.A./N.A.
Hydrosolubility: N.A./N.A.
Partition coefficient (n-octanol/water): N.A./N.A.
Auto-ignition temperature: Non inflamabilityºC
Decomposition temperature: N.A./N.A.
Viscosity: N.A./N.A.
Explosive properties: N.A./N.A.
Oxidizing properties: N.A./N.A.
N.A./N.A.= Not Available/Not Applicable due to the nature of the product

**9.2 Other information.**
Pour point: N.A./N.A.
Blink: N.A./N.A.
Kinematic viscosity: N.A./N.A.
N.A./N.A.= Not Available/Not Applicable due to the nature of the product

## SECTION 10: STABILITY AND REACTIVITY.

**10.1 Reactivity.**
It can react with hydrochloric and nitric acid producing flammable or toxic gases.

**10.2 Chemical stability.**
Stable under the recommended handling and storage conditions (see section 7).

**10.3 Possibility of hazardous reactions.**
It can react with hydrofluoric and nitric acid producing flammable and toxic gases.

It is essential that the working atmosphere and gaseous emissions are controlled to ensure compliance with the limits of national and / or community legislation. The European Confederation of Iron and Steel Industries (EUROFER), the European Metals Association (EUROMETAUX) and the European Welding Association (EWA) have jointly developed recommendations on safe use for the welding processes of metals and alloys compiled in a document that is available for REACH purposes.

http://www.eufer.be/index.php/eng/REACH/Documents-and-useful-web-links/Welding

**10.4 Conditions to avoid.**
In contact with moisture or water, hydrogen may be released and flammable or explosive mixtures may be formed with air. Likewise, impurities can produce arsine (identifiable by its smell of garlic) and phosphine, toxic gases that are released in such

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proportions that, under mechanical ventilation conditions, they make the risk of poisoning clearly predominate over that of explosion. It occurs with greater abundance on newly fragmented surfaces.

Materials to avoid: The powder product, under normal conditions, does not have a tendency to flammability, but under the action of a source of vigorous ignition and in contact with oxidizing substances, it can ignite.

**10.5 Incompatible materials.**
Hydrogen, Arsine, Phosphine, NOx, silicon tetrafluoride.

**10.6 Hazardous decomposition products.**
No decomposition if used for the intended uses.

## SECTION 11: TOXICOLOGICAL INFORMATION.

**11.1 Information on toxicological effects.**
No data available on product tested.
The repeated or prolonged contact with the product, can cause the elimination of the fat of the skin, giving rise to a non-allergic contact dermatitis and to that the product is absorbed through the skin.
Splashes in the eyes can cause irritation and reversible damage.

11.1 Information on toxicological effects
Inhalation: The main route of entry is the inhalation of dust, since its ingestion is not likely. The efctos will be null if the appropriate protective clothing indicated is used.

ACUTE EFFECTS
Inhalation: Finely divided powder can irritate and dehydrate the mucous membranes.
Workers: Risks by inhalation: DNEL: 0.3 mg / m3

ACUTE ORAL TOXICITY: Extrapolation of support substance Study of forced oral toxinity of Winkelmann Versuchstierzucht, Borchan / Germany with SILICE (CAS 7631-86-9) on male / female rats
LD50> 5000 mg / kgpc, NOT TOXIC

ACUTE TOXICITY BY INHALATION: Extrapolation of support substance.
OECD (2004) considered that there were no lethal effects after exposure by inhalation of rats at the highest technically possible concentrations (140 to 2000 mg / m3 of precipitated hydrophilic silica or pyrogenic silica, respectively). However, acute inhalation of amorphous silica dust can cause stress discomfort and also symptoms of local irritation of the nasal, bronchial or ocular mucous membranes. In conclusion, amorphous synthetic silica powders are considered non-toxic by inhalation.

ACUTE TOXICITY BY DERMAL ROUTE: Extrapolation of support substance (Analogous or substitute structure)
In 1978, Woltjen and Calkins presented the results of their studies on acute dermal toxicity of precipitated synthetic silicas in four different reports. After the acute dermal application of up to 5000 mg / kg of body weight of synthetic amorphous silica precipitate aqueous pastes on the intact and eroded skin of rabbits for 24 hours under occlusive conditions, no signs of systemic or organ toxicity were observed. There were only very mild transient erythemas in the treatment area in isolated animals. In conclusion, cutaneous exposure to high doses of synthetic amorphous silica will produce no systemic toxicity and LD50> 5000 mg / kg.

DERMAL IRRITATION: Extrapolation of support substance (Analogous or substitute structure)
In OECD (2004), precipitated hydrophilic silica and pyrogenic silica were tested by exposing rabbits to 0.19 or 0.5 g of dry or wetted test product under occlusive conditions for 4 to 24 hopras. These synthetic amorphous silicas do not irritate the skin under experimental conditions. However, these compounds can cause skin dryness after prolonged and repeated exposure.

EYE IRRITATION: Extrapolation of support substance (Analogous or substitute structure)
Jahn and BErthold (1991) studied ocular irritation caused by precipitated silica. Weakly irritating effects were obtained only in the conjunctiva. There were weak irritant effects in only the conjunctiva: grade 2 redness (over 4) in all animals after 1 h, grade 2 and 1 after 24 hours and reversibly at 72 h. After 1 h of exposure chemosis and very mild secretion appeared (Grade 1). NOT CLASSIFIED AS AN EYE IRRITANT.

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SKIN SENSITIZATION: Study does not justify scientifically.

RESPIRATORY SENSITIZATION: Study does not justify scientifically.

REPEATED DOSAGE TOXICITY (ORAL): Extrapolation of support substance (Analogous or substitute structure)
Micronized food grade silica gel (SYLOID (R)) was administered in feeding to B6C3F1 mice and Fisher rats with nivesles of doses 0, 1.25, 2.5, 5% (approximately 0, 2500, 5000,10000 mg / kg 7 days for mice and 0, 625, 1250, 250 mg / kg / day for rats) and for 93 and 103 weeks, respectively (Takizawa et al. 1988).
Measurements: physical examinations and clinical chemistry observations and post-mortem examination. There were no biological or other significant alterations in terms of body weight, consumption of food or the physical characteristics of the exposed animals.
No significant dose-related effects were observed for any dose level after clinical laboratory examinations. The pathological examinations revealed no macroscopic or microscopic changes in the milled tissues. The occasional presence of some neoplasms did not reveal consistent and dose-related trends in any group. ADEQUATE ADMINISTRATION IN THE MICRONIZED SILICA DIET (Syloid 244) HAS BEEN DEMONSTRATED TO BE GENERALLY SAFE, WITHOUT LONG-TERM EFFECTS.

TOXICITY IN REPEATED DOSES (INHALATION): Extrapolation of support substance (Analogous or substitute structure)
Reuzel et al. (1991) studied the toxicity by subchronic inhalation of amorphous silica and quartz by exposing rats to test these substances in a 13-week inhalation study. only quartz caused progressive lesions in the lungs that resemble the silicotic nodules. Among the amorphous hydrophilic silicas Aerosil (R) 200 caused the most severe changes in the lungs, which were only partially recovered, while the Sipernat (R) 22S precipitates caused the less severe, completely reversible lung changes.

TOXICITY IN REPEATED DOSES (DERMAL): Secondary source, extrapolation of synthetic amorphous silica.
In a repeated dose dermal toxicity study (Cabot Inc.1958, ECETOC 2006), spongy pyrogenic Cab-O-Sil showed no evidence of sitic toxicity or gross or microscopic pathology, and there were no significant differences. to skin irritation between the tested and control groups.

TOXICITY IN REPEATED DOSES (OTHER ROUTES) Extrapolation of4 support substances (Analogous or substitute structure)
In Glomme (1966-1967), 40 mg of particles containing small amounts of quartz were given to rats intraperitoneally. The particles - called P125 - were round in shape, and 96% of them were less than 0.2 microns.
The macroscopic observations showed that the administration of atmospheric dust (p125) from the ferrosilicon melting furnace causes a reaction in the experimental animals.

Even though the pathological cmabios did not progress to more advanced stages in the course of the observation period, they were pronounced enough to indicate the presence of reactions in the lungs. In the histological examination, the results indicated that this type of particles causes a certain fibrillar reaction, but that the tendency to progression may be slight. The weight of the lungs was significantly greater than in the control groups, and in the animals that received titanium oxide or glass wool, at all times of the observation, but only in the subsequent observations with repsect to the animals that They received iron silicate and olivine. A parallel evolution occurred with the n collagen content of the lungs after administration of P125.

CARCINOGENICITY Extrapolation of support substance (Analogous substitute structure)
Takizawa et al. (1988) conducted a chronic oral study with the micronized silica food category. Micornised silica gel (Syloid) was fed to B6C3F1 mice and Fisher rats at dose levels of 0, 1.25, 2.5 and 5% for 93 and 103 weeks, respectively.
Each group consisted of 40 males and 40 females. 10 animals by sex and group were sacrificed after 6 and 12 months and the remaining animals were spayed for 21 months.

The measurements included physical examinations and observations, clinical chemical analysis and post-mortem examinations, including histopathology. There were no significant biological or other alterations in terms of body weight, food cosm or physical characteristics. or differences in the survival of the animals between the different groups are observed. In the clinical laboratory examinations no significant effects were observed related to the doses for any level of the masses. There are no macroscopic or microscopic changes in the tissues examined. The occasional presence of some neoplasms did not reveal any consistent or dose-related tendencies in any of the four groups; the Cochran-Armitage linear trend test was performed. The main defect of this study due to the too small size of the groups (only 20 animals / sex / group of doses were kept alive until the end of the study) to be able to discriminate small carcinogenic effects.

TOXICITY FOR REPRODUCTION: Extrapolation of dosing substances (Analogous substitute structure)
Calcium silicate toxicity was studied by the dominant lethality test after exposure of male rats receiving oral doses of up to 5000 mg / kg for 1 or 5 days (Litton 1974). No differences were observed in the fertility index, preimplantation losses of embryos or

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resorption between the food groups with calcium silicate and that of the control animals. CONCLUSION: Calcium silicate has no effect on rat fertility studied by the dominant lethality assay.

TOXICITY FOR DEVELOPMENT / TERATOGENICITY: Extrapolation of support substance (Analogous or substitute structure):
The administration of up to 1350 mg / kg (sorporal weight) of4 Syloid 244 (silica gel, cryst.-free); CAS-No 112926-00-8 as a test material for pregnant rats for 10 consecutive days had no discernible effect on nesting or on the survival of the mother or on fetal survival.
The number of anomalies observed in any of the soft or esulecotic tissues of the test groups did not differ from the number that appeared spontaneously in the controls over the groups treated with reference placeb. Conclusion: No teratogenic effects.

## SECTION 12: ECOLOGICAL INFORMATION.

**12.1 Toxicity.**

It is not a biodegradable product nor does it produce bio accumulation.

**DATA FOR METAL SILICON**:

PNEC in water (intermittent discharges) = 100 mg / l, Evaluation Factor: Extrapolation
PNEC STP = 25 mg / l, Evaluation Factor: Extrapolation
PNEC ORAL = Not potent for bioaccumulation.

**12.2 Persistence and degradability.**

**DATA FOR METAL SILICON:**
12.2.1 Short-term toxicity in aquatic invertebrates: scientifically unjustified study.
12.2.2 Long-term toxicity in aquatic invertebrates: scientifically unjustified study.
12.2.3 Toxicity in aquatic algae and cyanobacteria: Extrapolation of sodium metasilicate pentahydrate (Na2SiO3□5H2O) on Pseudokirchnerella subcapitata according to OECD Guideline 201 (Alga, Growth Inhibition Test)

**Conclusions:** A growth inhibition test with Pseudokirchnerella subcapitata has been carried out by the application of the soluble silica salt (Na2SiO3□5H2O). The toxicity of the dissolved silica was evaluated in an experiment with nominal soluble silica concentrations ranging from 100 to 2500 mg / SiO2.
The NOEC and LOEC values were 160 and 250 mg / l, respectively. The dissolved SiO2 concentration was analytically controlled (modified colorimeter measurement, ASTM hexamolybdenum method D8590-00). From the concentration-response curve, the ErC10 and ErC20 values of 228 and 234 mg / l were derived. The authors observed that the dissolved silica concentration response curve presents a very steep slope. For example, an increase in the test concentration of 160-250 mg / l results in a decrease of almost 50% in the specific growth rate. This may be due to a physicochemical change in the test solution. The authors suggested that at a concentration higher than 160 mg / l, solid colloidal SiO2 are forming that are responsible for the toxic effect. Two observations support this assumption. First, at high nominal test concentrations (1000 mg / l and above) and after adjustment of Ph A 7.5, A TRANSPARENT VISCOUS MILK GEL IS FORMED WITHIN 24 H. At a test concentration 400 mg / l the growth rate reaches a plateau. The observation indicates that, although the soluble silica was not really toxic, the colloids that are formed in a saturated solution finally are those that exert effects that lead to the inhibition of the growth of P.subcapitata.

12.2.3 Toxicity to microorganisms:

Extrapolation from silica particles. Study by Adams, L.K. Lyoon D.Y. and Alvarez, P.J.J, of 2006 on effects on Bacillus subtilis and Escherichia Coli

The particles were found to be harmful to varying degrees, with the antibacterial activity increasing with the concentration of particles. The nominal particle size did not correspond to the actual particle size in the test system. Apparently, aggregation produces particles of similar size that had similar antibacterial activity at a given concentration. Real size range in water was: The initial nominal of 14 nm turned out to be a measured range of 10-75 microns, (mean 47 µm). Relatively high concentrations were needed to achieve a reduction in cell growth. The addition of SiO2 (mean size of 205 nm) at 5000 ppm resulted in a 99% reduction in growth of B.Subtilis and at 1000 mg / L a reduction of 7 ± 4.7%. A reduction of 48% was observed at 5000 mg / l and a reduction of 15 ± 6.4% of E.coli was observed at 500 mg / l.

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**12.3 Bioaccumulative potential.**
No data

**12.4 Mobility in soil.**
It does not produce bio accumulation. It is known that silicon is not bioconcentrated or bioaccumulated in the organisms living in the soil at harmful levels. Certain species of animals can actively take silicon in large quantities.
Bioaccumulation from the ground to terrestrial species could be expressed quantitatively by the Biota-to-Soil Accumulation Factor (BSAF). Alternatively, the concentration in the organism could be related to the concentration in the water of the soil joints by calculating a BBC Bio Concentration Factor [L / kg].

For silica these fats do not give any useful or important information because silicon and silica are always present in the terrestrial environment and are not normally considered as dangerous or bioaccumulative pollutants.

**12.5 Results of PBT and vPvB assessment.**
According to Annex XIII of the REACH Regulation, PBT and mBmP assessment for inorganic substances is not necessary.

**12.6 Other adverse effects.**
Based on the available information, there is no indication of a potential bioaccumulation and, therefore, the possibility of secondary poisoning is not considered relevant.

## SECTION 13 DISPOSAL CONSIDERATIONS.

**WASTE PRODUCTS MANAGEMENT:**
Due to its characteristics, there is only the possibility of recycling.

**DO NOT PULL THE PRODUCT TO URBAN GARBAGE!**

**CONTAINED PACKAGING AND PACKAGING:**
The correct management of the containers and packaging with which the product is used is the responsibility of the customer. Deliver to a waste manager authorized by your Autonomous Community.

The information on Authorized Managers is provided in the Ministry of Environment of its Autonomous Community. YOU CAN FIND THE LINK TO THE WEB OF THE ENVIRONMENTAL ORGANISMS OF THE DIFFERENT AUTONOMOUS COMMUNITIES ON THE WEB OF THE MINISTRY OF THE ENVIRONMENT:
Follow the provisions of Directive 2008/98/EC regarding waste management.

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## SECTION 14: TRANSPORT INFORMATION.

**Although Silicon Ferro alloys with a silicon content between 30% and 90% are classified as dangerous goods for transport by the release of inflaming gases in contact with water, the manufacturer certifies that, submitted its product to the test 33.4.1.4 of the Document "Recommendations concerning the transport of dangerous goods, Manual of tests and Criteria 2009" the result is negative and, therefore, can not be considered dangerous goods.**

**14.1 UN number.**
Transportation is not dangerous.

**14.2 UN proper shipping name.**
Description:
ADR: Transportation is not dangerous.
IMDG: Transportation is not dangerous.
ICAO/IATA: Transportation is not dangerous.

**14.3 Transport hazard class(es).**
Transportation is not dangerous.

**14.4 Packing group.**
Transportation is not dangerous.

**14.5 Environmental hazards.**
Transportation is not dangerous.

**14.6 Special precautions for user.**
,Transportation is not dangerous.

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code.**
Transportation is not dangerous.

## SECTION 15: REGULATORY INFORMATION.

R SENTENCES, S PHRASES: Not applicable

None of the substances present in Silica Calcium are subject to Regulation (EC) No. 2037/2000 of the European Parliament and of the Council of 29 June 2000 on substances that deplete the ozone layer.

None of the substances present in Silicon Calcium are subject to Regulation (EC) Nº850 / 2004 of the European Parliament and of the Council, of April 29, 2004, on persistent organic pollutants.

None of the substances present in Silicon Calcium are subject to the Regulation (EC) the export and import of dangerous chemical products.

Silicon Calcium is not subject to specific provisions regarding the protection of human health or the environment at the community level.

## SECTION 16: OTHER INFORMATION.

Abbreviations and acronyms used:
CEN: European Committee for Standardization.
DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.

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DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.
PPE: Personal protection equipment.

Key literature references and sources for data:
http://eur-lex.europa.eu/homepage.html
http://echa.europa.eu/
Regulation (EU) 2015/830.
Regulation (EC) No 1907/2006.
Regulation (EU) No 1272/2008.

The information given in this Safety Data Sheet has been drafted in accordance with COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.

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