

PRODUCT SAFETY DATA SHEET**for****CaSi fume***prepared pursuant to Annex II of the REACH regulation EC 1907/2006 in the valid and effective wording***1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1 Substance/Mixture Identifier**

Name of Preparation: CaSi fume

Synonyms: Fume from FeSiCa manufacturing

Trade Name: CaSi fume

REACH Registration No.
Calcium: 01-2119516038-45-0009

REACH Registration No.
Silicon: 01-2119480401-47-0050

REACH Registration No.
Iron: 01-2119462838-24-0093

1.2 Identified Uses of the Substance/Mixture

Identified Uses: Please, see identified uses of the substance as set forth in Annex 1 to the Product Safety Data Sheet

Uses Advised Against: Other uses not included in Annex 1 to the Product Safety Data Sheet.

1.3 Details of the Supplier of Safety Data Sheet

Name: OFZ a. s.

Address: Široká 381, 027 41 Oravský Podzámok, Slovakia

Phone No.: +421/43/5804 111

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E-mail: ofz@ofz.sk

1.4 Emergency Telephone Number

European Emergency No.: 112

Emergency Phone No.
at the Company: +421/43/5804 111

Available Outside Office

Hours: No

National Toxicological
Information Centre: +421 2 5477 4166

2. HAZARDS IDENTIFICATION

2.1 Classification of the Substance

2.1.1 Classification of the Substance According to Regulation CLP / GHS

The substance does not meet the criteria for classification under Regulation EC 1272/2008.

2.2 Label Elements

2.2.1 Labelling According to Regulation CLP / GHS

The substance does not meet the criteria for classification under Regulation EC 1272/2008.

Signal word: None

2.3 Other Hazards

Data for classification as PBT or vPvB substance are not available.

Under abnormal storage conditions, in the presence of water, the product can cause a skin irritation. Avoid dampening of material and protect material from water.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Description: CaSi fume is a dust captured in dedusting system from the production of Ferro Silico Calcium.

3.1 Constituents

Constituent	Concentration Range	Remarks
SiO ₂ (silicon dioxide)	≥ 60.0 % (w/w)	
CaO (calcium oxide)	≤ 25.0 % (w/w)	
Al ₂ O ₃ (aluminium(III) oxide)	≤ 2.0 % (w/w)	
MgO (magnesium oxide)	≤ 6.0 % (w/w)	
Na ₂ O (sodium oxide)	≤ 3.0 % (w/w)	
K ₂ O (potassium oxide)	≤ 6.0 % (w/w)	
SO ₃ (sulfur trioxide)	≤ 2.0 % (w/w)	
FeO (iron oxide)	≤ 5.0 % (w/w)	

3.2 Impurities

No impurities relevant for classification and labelling.

4. FIRST-AID MEASURES

In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Protection is needed for the First Aider.

4.1 Description of First-aid Measures

<u>General Information:</u>	Not anticipated to cause any harm if in contact with clothing, skin, or eye. However, in case of accident or unwellness, immediately seek medical advice.
<u>Inhalation:</u>	Move out of dangerous area. Move to fresh air. If symptoms persist, call a physician.
<u>Skin contact:</u>	Before washing use a dry brush to remove dust from skin. Wash off with soap and plenty of water immediately. Remove all contaminated clothes and shoes.
<u>Eye contact:</u>	Rinse with plenty of water immediately, also under the eyelids, for at least 15 minutes. Remove contact lenses, if applicable. Consult an ophthalmologist immediately.
<u>Ingestion:</u>	Not likely. In the case of ingestion, do not administer liquids to the unconscious person and do not induce vomiting and seek an immediate medical attention.

4.2 Most Important Symptoms

erythema, itching, irritation of the eyes, skin and mucous membranes, abdominal pain.

5. FIRE-FIGHTING MEASURES

5.1 Suitable Extinguishing Media

Special powder against metal fire, dry chemical, lime, sand, dry sodium carbonate

5.2 Unsuitable Extinguishing Media

Water, foam

5.3 Special Hazards Arising From the Substance or Mixture

On contact with water the material causes a skin irritation.

5.4 Advice for Fire Fighters

Secure the danger area. Evacuate personnel to safe areas. Avoid dust formation.

5.5 Additional Information

Contaminated extinguishing water and soil must be disposed of in accordance with official regulations. Do not flush into surface water or sanitary sewer system.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment, and Emergency Procedures

6.1.1 For non-emergency personnel

Use personal protective equipment (see section 8).

6.1.2 For emergency personnel

Remove all sources of ignition. Keep away from sparks and flames. Avoid dust formation. Keep unprotected people away. Avoid contact with skin, eyes and clothing. Use personal protective equipment (see section 8). Never use water. Ensure adequate ventilation.

6.2 Environmental Precautions

The preparation is not considered an environmental hazard based on the available studies. Do not flush into surface water or sanitary sewer system.

6.3 Methods and Material for Containment and Cleaning up

Prevent further leakage or spillage if safe to do so. Contain the product immediately by taking suitable action. Protect from water.

Keep away from sources of ignition - No smoking. Mop up avoiding dust formation and proceed as set out in the Act on Waste. Keep in suitable, closed containers for disposal. Do not allow any water into the container.

Small amounts: Spilled or leaking material is to be soaked up with non-flammable absorbent materials (sand, soil, diatomaceous earth) and put in containers. Remove contaminated material in the work area immediately and store it in closed waste containers. Do not flush with water.

6.4 Reference to Other Sections

For more information on waste from residues, see section 13 and on exposure controls or personal protection, please, see section 8.

7. HANDLING AND STORAGE

7.1 Handling

Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice. Keep packaging tightly closed. Avoid dust formation. Keep containers dry, away from heat and tightly closed to avoid moisture absorption.

Advice on protection against fire and explosion

Keep away from heat and sources of ignition. Do not smoke. Use a spark-free tool.

Further information on handling

CaSi fume is delivered in bulk (in the original form or densified) in cisterns, containers or on covered trucks, railway cars, cisterns, or in big bags according to the work procedure PVP-02/2018. CaSi fume can also be delivered in the form of briquettes upon customer`s request.

7.2 Storage

Requirements for storage rooms and vessels

Store the product in the closed coverings such as big-bags, bags, barrels, in silos, closed containers and covered warehouses.

Advice on storage compatibility

Do not store with flammable and highly flammable substances. Store separately from: acids and bases, oxidising agents, reducing agents and water.

Further information on storage conditions

Under abnormal storage conditions, in the presence of water, the product can cause a skin irritation. Protect from water.

7.3 Specific End Uses

No information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Occupational Exposure Limit (OEL): 0.5 mg/m³ inhalable dust from CaSi fume

Long-term Derived No Effect Level (DNEL): can be achieved by controlling a level of inhalable dust below OEL

8.2 Exposure Controls

The producer and consumer shall monitor and measure the values of harm factors at its own working place for the purpose of complying with exposure limits and adopt measures, particularly technical in nature, to reduce the risk of making harm to human health and environment.

8.2.1 Appropriate Engineering Controls

Measure occupational exposure level regularly. Local exhaust ventilation or other controls to keep airborne dust levels below exposure limits are required.

8.2.2 Individual Protection Measures

8.2.2.1 Eye/Face Protection

Wear tightly fitting protective goggles. (EN 166)

8.2.2.2 Skin Protection

Wear closed protective clothes and gloves. Use a hand protective cream.

8.2.2.3 Respiratory Protection

Do not breathe dust. Wear protective respiratory system if exposed to dust. (Respirator with P2 filter)

8.2.3 Environmental Exposure Controls

Emissions from ventilation or work place process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Concentration below 0.5 mg/m³ does not pose a threat to environment.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

Appearance:	Grey-white, solid
Odour:	Odourless
Odour threshold:	Does not apply, substance is odourless
pH:	not applicable
Boiling point:	not applicable (solid with a melting point > 300°C)
Melting/freezing point:	ca. 1,200 – 1,550 °C
Flash point:	not applicable (substance inorganic)
Loss on ignition:	≤ 5 % (w/w)
Flammability:	non flammable

Explosive properties:	non explosive
Oxidizing properties:	non oxidizing
Vapour pressure:	not applicable (melting point > 300°C)
Moisture:	≤ 2.0 % (w/w)
Bulk density:	150.0 – 900.0 kg/m ³
Mass activity index:	≤ 1
Solubility in water:	not soluble
Partition coefficient n-octanol/water (log value):	not applicable (substance inorganic)
Viscosity:	not applicable (substance solid not liquid at ambient temperature)
Dissociation constant:	cannot dissociate due to lack of relevant functional groups
Surface tension:	substance is not surface active
Stability in organic solvents:	not applicable (substance inorganic)

9.2 Other Information

Formation of gases: yes after the contact with water

10. STABILITY AND REACTIVITY

10.1 Reactivity

CaSi fume is not reactive at normal ambient conditions.

10.2. Chemical Stability

CaSi fume is chemically stable at normal ambient, handling, and storage conditions.

10.3 Possibility of Hazardous Reactions

No hazardous reactions when handled and stored according to provisions.

10.4 Conditions to Avoid

Protect from humid air and water.

10.5 Incompatible Materials

Store separately from: humid air and water, acids and bases, oxidising agents.

10.6 Hazardous Decomposition Products

Does not decompose when used for intended uses

11. TOXICOLOGICAL INFORMATION

Toxicity Endpoints	Outcome of the Effects Assessment
Acute Toxicity	Data lacking.
Skin Corrosion/Irritation	Decompensation of substance with tissue moisture. In contact with water, the product can irritate skin and mucous membranes.
Serious Eye Damage/Irritation	Decompensation of substance with tissue moisture. In contact with water, the product can irritate eyes and mucous membranes.
Germ Cell Mutagenicity	Not applicable
Carcinogenicity	Unknown
Toxicity for Reproduction	Unknown
Specific Target Organ Toxicity (Single Exposure)	Based on available data the classification criteria are not met.
Specific Target Organ Toxicity (Repeated Exposure)	Data lacking.
Aspiration Hazard	Data lacking

12. ECOLOGICAL INFORMATION

No data available for toxicity, persistence and degradability, bioaccumulative potential, mobility in soil and PBT and vPvB assessment.

Further information

Under abnormal storage conditions, in the presence of water, the product can cause a skin irritation.

13. DISPOSAL CONSIDERATIONS

Advice on disposal

Product shall be disposed in accordance with the official regulations. Where possible, recycling is preferred to disposal or incineration. Contact waste disposal services.

Waste disposal number of waste from residues/unused products

060499 WASTES FROM INORGANIC CHEMICAL PROCESSES; metal-containing wastes other than those mentioned in 06 03; wastes not otherwise specified

Waste disposal number of used product

060499 WASTES FROM INORGANIC CHEMICAL PROCESSES; metal-containing wastes other than those mentioned in 06 03; wastes not otherwise specified

Dispose of CaSi fume should be in accordance with local and national legislation.

14. TRANSPORT INFORMATION

CaSi fume is not classified as hazardous for transport and transported according to ADR (road) and RID (rail).

CaSi fume is classified as dangerous under marine transportation (IMDG).

Avoid dampening of material and protect material from water during transportation.

15. REGULATORY INFORMATION

UN GHS - UN Globally Harmonized System of Classification and Labeling of Chemicals (GHS):

“According to Chapter 1.5.2 of the UN Globally Harmonized System of Classification and Labeling of Chemicals (GHS) safety data sheets (SDS) are only required for substances and mixtures that meet the harmonized criteria for physical, health or environmental hazards. This product does not meet these criteria

EU CLP – Classification Labeling and Packaging Regulation:

According to Article 59(2)(b) of (EC) No 1272/2008 (CLP), which amends REACH article 31(1), safety data sheets (SDS) are only required for substances and mixtures/special preparations that meet the harmonized criteria for physical, health or environmental hazards. Since this product does not meet these criteria, a SDS according to 453/2010/EC is not issued. In order to communicate relevant HSE-(health, safety and environmental) information, this product safety information (PSI) is provided instead.

EU REACH – Registration, Evaluation and Authorization of Chemicals:

REACH article 31(7) requires relevant exposure scenarios from the Chemical Safety Report (CSR) to be annexed to the SDS. However, according to REACH Annex I, section 0. (Introduction), subsection 0.6. no 4 and 5, exposure scenarios are only required for hazard-classified substances or mixtures. Since this product is not hazard-classified according to CLP, there is no requirement for exposure scenarios.” The assessment of chemical safety was performed for main constituents of this substance. This substance does not require authorisation according to REACH regulation.

With regard to CaSi fume there are no special regulations, restrictions and prohibitions.

16. OTHER INFORMATION

These data are based on our current knowledge but do not constitute a guarantee for any specific product features and do not establish a legally valid contractual relationship.

16.1 List of Abbreviations

DNEL:	derived no-effect level
OEL:	occupational exposure limit
PBT:	persistent, bioaccumulative, toxic chemical
vPvB:	very persistent, very bioaccumulative chemical

APPENDIX

Table 1 Identified Uses of the Substance/Mixture

Identified Use	Process Category (PROC)	Preparation Category (PC)	ERC code	Sector of End Use (SU)	Article Category (AC)
Use as a secondary raw material (original undensified, micropelletized, briquettes) for ferroalloy manufacturing	PROC 8a, 8b		ERC 6a		
Use as a secondary raw material for manufacturing of ferrous and non-ferrous metals	PROC 8a, 8b		ERC 6a		
Use as a secondary raw material in its dust form or processed into briquettes that can be reused for the ferroalloy production	PROC 8a, 8b		ERC 6a		
Use into casting powders LP 31.K/LP 32.BA	PROC 8a, 8b		ERC 6a		
Use for backfilling and reconstruction of a fall zone	PROC 8a, 8b	PC 0	ERC 10a	SU 19	AC 0: C18.2
Use for clinker baking	PROC 3, 4, 5, 8a, 8b, 9	PC 0	ERC 3, 5	SU 13 SU 0: Other: NACE code: C23	AC 0

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