MATERIAL SAFETY DATA SHEET
for
Silica fume for concrete MICROSILICA -SIOXID, Class 1
Silica fume for concrete MICROSILICA -SIOXID, Class 2

(prepared according to Annex II of Regulation EP and Council 1907/2006/EC and Commission Regulations (EU) 2020/878)

Number: KBU-004-EN
Date of issue: 10 March 2025
Revision No.: 0
Revision Date: -

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name: Silica fume for concrete MICROSILICA-SIOXID, Class 1
Silica fume for concrete MICROSILICA-SIOXID, Class 2
Chemical name: Silica fume
Synonyms: MICROSILICA-SIOXID

Silica fume MICROSILICA-SIOXID	EC No.	CAS No.	REACH Registration No.	Index No.
	273-761-1	69012-64-2	01-2119486866-0010	Not applicable

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

Relevant identified uses:

- Used as a **Type II additive** in concrete, mortars, injection mortars, and other mixtures intended for structural applications and components, in accordance with Annex ZA of EN 13263:2005+A1:2009.

Non-recommended uses: Information not available.

1.3 Details of the supplier of the Safety Data Sheet

Manufacturer: OFZ as
Address: Široká 381, 027 41 Oravský Podzámok, Slovakia
Phone number: +421/43/5804 111
Fax number: +421/43/5804 320
E-mail: ofz@ofz.sk

1.4 Emergency telephone number

The substance **is not classified** as hazardous, emergency call numbers are not required.
However, in the event of an accident, call the local emergency line.

European emergency tel. number: 112
National Toxicological
Information Centre (Slovakia): +421 2 5477 4166 (24-hour consultation service)

2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No. 1272/2008 (CLP)
Not classified.

2.1.2 Additional information
Information not available.

2.2 Label elements

Labelling is not required.

2.3 Other hazards

The substance **is not** identified as a PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative) substance according to the criteria set out in Annex VIII of the REACH regulation.

The substance **does not** contain any substances listed in the inventory compiled in accordance with Article 59(1) of the REACH Regulation that have endocrine-disrupting properties, nor is it identified as a substances with endocrine-disrupting properties according to the criteria established in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at concentrations of 0.1% or higher.

The substance **is not** classified as hazardous under the CLP Regulation (EC) No 1272/2008.

Long-term exposure may lead to adverse health effects and an increased risk of silicosis among workers.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Substance obtained as a by-product of the production of FeSi ferroalloy and Si metal.

Purity: $SiO_2 \geq 85.0\%$ w/w for Class 1, $SiO_2 > 80.0\%$ w/w for Class 2

Component	CAS No.	EC No.	Concentration according to STN EN 13263-1:2005+A1:2009	Notes
Silicon dioxide (SiO_2)	7631-86-9	231-545-4	≥ 85.0% w/w for Class 1 > 80.0% w/w for Class 2	-
Elemental silicon (Si)	7440-21-3	231-130-8	≤ 0.4% w/w	-
Free calcium oxide (CaO)	1305-78-8	215-138-9	≤ 1.0% w/w	-
Sulfates (as sulfur trioxide, SO_3)	7446-11-9	231-197-3	≤ 2.0% w/w	-
Total alkali content (as sodium oxide equivalent, Na_2O eq.)	1313-59-3	215-208-9	≤ 6% w/w	-
Chlorides as (Cl^-)	16877-00-6	690-375-2	≤ 0.3% w/w	-

$Na_2Oeq = Na_2O + 0.658 \times K_2O$

It does not contain any impurities relevant for classification and labelling.

3.2 Mixtures

Not applicable.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General notes: In case of accidental exposure and symptoms, seek medical advice immediately.

After inhalation: Mechanical irritation caused by dust in the respiratory tract. Remove the affected person to fresh air. If the affected person is not breathing, provide artificial respiration. Seek medical attention if any difficulties occur.

After skin contact: Wash the skin with water or mild soap.

After eye contact: Rinse eyes with water or physiological saline. If discomfort persists, seek medical attention.

After ingestion: Unlikely. However, in case of ingestion, do not induce vomiting and seek medical assistance immediately.

4.2 Most important symptoms and effects, both acute and delayed

Long-term inhalation of dust from the substance may pose a health risk to humans. During handling, pouring, damage to the packaging, and subsequent release of the substance into the workplace environment, fine particles may become airborne, potentially causing a temporary exceedance of the occupational exposure limit (OEL). Prolonged exposure may pose a health hazard to workers and lead to the development of silicosis.

4.3 Indication of any need for immediate medical attention and special treatment needed

No relevant information identified.
In case of doubt or if symptoms occur, seek medical advice.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

The substance **is non**-flammable, and its dust does not pose an explosion hazard.

Suitable extinguishing media: Not applicable.
Unsuitable extinguishing media: Not applicable.

5.2 Special hazards arising from the substance or mixture

Not applicable.

5.3 Advice for firefighters

Not applicable.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Isolate the hazardous area and prevent access.
Keep unprotected persons at a safe distance.
Wear appropriate PPE (see Section 8).
Ensure dust extraction and adequate ventilation.
In case of accidental release, leave the affected area and contact trained personnel.

6.1.2 For emergency personnel

Isolate the hazardous area and prevent access.
Keep unprotected persons at a safe distance.
Wear appropriate PPE (see Section 8).
Ensure dust extraction and adequate ventilation.

6.2 Environmental precautions

Based on available studies, the substance does not pose a threat to the environment.
Prevent dispersion into the environment and release of material into soil, waterways, and sewage systems.

6.3 Methods and material for containment and cleaning up

6.3.1 Containment
Handle the substance in a way that minimizes dust generation.
Prevent dust dispersion.
Ensure dust extraction and adequate ventilation.

6.3.2 Cleaning up
Collect dust into suitable closed containers.
Vacuuming is preferred over sweeping.
Thoroughly clean contaminated objects and surfaces in compliance with environmental regulations.

6.3.3 Other information
Information not available.

6.4 Reference to other sections

Handling information: see Section 7.
Information on combustion products: see Section 5.
Information on incompatible materials: see Section 10.
Information on personal and environmental protection: see Sections 8, 12 and 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Safety measures:
Ensure dust extraction and adequate ventilation.
Handle the substance in a way that minimizes dust generation.
Prevent accumulation and dispersion of dust during handling.
Wear protective clothing, gloves, and safety goggles, as well as appropriate respiratory protection (see Section 8).

Environmental protection measures:
Collect any spilled dust into closed containers.
Prevent dispersion into the environment and release of material into soil, waterways, and sewage systems.
Dispose of in accordance with locally approved regulations.

Hygiene measures:
Do not eat, drink, or smoke while handling the substance.
Wash thoroughly after handling.
Remove contaminated clothing and PPE before entering dining areas.

7.2 Conditions for safe storage including any incompatibility

It is stored in closed, labeled containers (big bags, bags, drums, silos, containers, tankers, and other large-capacity vessels) in a warehouse or on a designated paved storage area within the facility premises.

7.3 Specific end use (s)

See identified uses of the substance – Section 16.5 of the Annex.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Users should always consult their national or regional regulatory authorities for advice on current legal limits applicable to them. They should also verify whether these limits are legally binding or only recommended guidelines.

Exposure limits	
OEL	4 mg/m³ of inhalable dust from the substance
DNEL	0.3 mg/m³ of inhaled dust from the substance, which is achieved by maintaining the OEL below the occupational exposure limit value.
PNEC	Not required for water, soil, or sediment. However, this may be updated based on the results of new studies. The substance is not toxic to living organisms.

Under normal conditions of use, the substance does not emit contaminants into the air.
OEL/BLV values are not provided.

Control banding approach:
The control banding approach is not applied as a risk management measure for the uses of this substance listed in section 1.2 and in Table 1 of section 16.5 of the Annex.

8.2 Exposure controls

To control potential exposure, dust generation and dispersion must be prevented. The use of appropriate protective measures is recommended. If visible dust dispersion occurs, hygienic and safety measures should be applied to prevent fine dust concentration exceeding 0.3 mg/m³ in the workplace air.

8.2.1 Adequate technical control measures
Regularly measure the occupational exposure limit on-site. If dust is generated during material handling, maintain dust levels within limits by using forced ventilation, local exhaust ventilation, or other measures.

8.2.2 Individual protective measures, such as personal protective equipment

8.2.2.1 Information on the use of protective equipment
Personal protective equipment must comply with good occupational hygiene practices and be consistent with control measures including engineering controls, ventilation, and isolation.

8.2.2.2 Equipment to provide adequate and appropriate protection

a) Eye/face protection
Mandatory use of safety goggles.

b) Skin protection
Hand protection: Mandatory use of gloves resistant to mechanical damage and use of hand cream.
Other skin protection: Mandatory use of protective clothing and footwear.

c) Respiratory protection
Mandatory use P2-type filters (high filtration efficiency).

d) Thermal hazard
Information not available.

8.2.3 Environmental exposure controls
Dust emissions from ventilation systems or workplaces must be controlled to comply with environmental legislation requirements.
Limits for particulate matter (PM2.5 and PM10) in ambient air must be implemented (Directive 1999/30/EC and its subsequent amendments).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Property	Information
Physical state	Solid (powder form)
Color	White, grey or black
Odor	Odorless, odor threshold: not relevant
Melting/freezing point	Expected >1500°C at 101.3 kPa
Boiling point	Not relevant (substance solid with melting point > 300 °C)
Flammability	Non-flammable (inorganic substance with silicon in highest oxidation state)
Lower and upper explosion limits	Not relevant (not applicable to inorganic substances)
Flash point	Not relevant (not applicable to inorganic substances)
Oxidizing properties	Non-oxidizing (EU method A.17)
Auto-ignition temperature	Not relevant
pH value	Not relevant (substance is solid at ambient temperature)
Kinematic viscosity	Not relevant (substance is solid at ambient temperature)
Water solubility	OECD T/D screening test: ≤ 0.25 mg/l at pH 6 (21.5 °C); 0.37 ≤ 0.72 mg/l at pH 8 (21.5 °C) OECD 105: 1.3 ≤ 5.3 mg/l at pH 5.9-7.6 (20 °C) MICROSILICA PARTICLES – SiO2 < 1
n-octanol/water partition coefficient	Not relevant (inorganic substance)
Dissociation constant	Substance does not dissociate due to absence of relevant functional groups
Stability in organic solvents	Not relevant (inorganic substance)
Vapor pressure	Not relevant (melting point > 300°C)
Surface tension	Substance is not surface-active
Bulk density	300 - 850 kg/m^3
Activity concentration index	≤ 1.0
Activity index (after 28 days)	≥ 100 %
Loss on ignition	≤ 4.0% w/w
Specific surface area	25.0 ± 10.0 m²/g

9.2 Other information

9.2.1 Information regarding physical hazard classes
No information available.

9.2.2 Other safety characteristics
No information available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

The substance is stable under normal conditions of use, storage, and transport.

10.2 Chemical stability

The substance is chemically stable under normal conditions.

10.3 Possibility of hazardous reactions

Toxic gases of silicon tetrafluoride (SiF4) are formed upon contact with hydrofluoric acid.

10.4 Conditions to avoid

Avoid contact with hydrofluoric acid (HF).

10.5 Incompatible materials

hydrofluoric acid (HF).

10.6 Hazardous decomposition products

No information available.

11. TOXICOLOGICAL INFORMATION

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

The substance **is not** classified as hazardous under the CLP Regulation (1272/2008/EC) or the Dangerous Substances Directive (67/548/EEC).

Hazard class	Information
Acute toxicity	Based on the available data, the classification criteria are not met.
Skin corrosion/irritation	Based on the available data, the classification criteria are not met.
Serious eye damage/irritation	Based on the available data, the classification criteria are not met.
Respiratory or skin sensitisation	Based on the available data, the classification criteria are not met.
Germ cell mutagenicity	Based on the available data, the classification criteria are not met.
Carcinogenicity	Based on the available data, the classification criteria are not met.
Reproductive toxicity	Based on the available data, the classification criteria are not met.
Specific target organ toxicity (STOT) - single exposure	Based on the available data, the classification criteria are not met.
Specific target organ toxicity (STOT) - repeated exposure	Based on the available data, the classification criteria are not met.
Aspiration hazard	Based on the available data, the classification criteria are not met.

11.2 Information on other hazards

11.2.1. Endocrine-disrupting properties
The substance does not contain any components at concentrations > 0.1 % that meet the definition of confirmed endocrine disruptors under any EU regulation.

11.2.2. Other information
Information not available.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Due to its known physical and chemical properties, absence of acute toxic effects, and the widespread occurrence of silicon and silicates in nature, poorly soluble silica is not expected to exhibit any toxic effects on the environment.

12.1.1 Toxicity to fish
OECD 203: LC_{50} (96 h) for freshwater fish: 100 mg/l MICROSILICA – SIOXID

12.1.2 Toxicity to aquatic invertebrates
OECD 202: EC_{50}/LC_{50} (24 h) for freshwater invertebrates: 1000 mg/l (amorphous silicon dioxide)
OECD 211: EC_{50} (21 days) unknown, test ongoing

12.1.3 Toxicity to aquatic plants
OECD 201: EC_{50}/LC_{50} (72 h) for freshwater algae: 250 mg/l SiO_2
ISO 10253: EC_{50}/LC_{50} (72 h) for marine algae: 1000 mg/l MICROSILICA – SIOXID
OECD 201: EC_{10}/LC_{10} or NOEC for freshwater algae: 228 mg/l SiO_2
OECD: EC_{10}/LC_{10} or NOEC for marine algae: 323 mg/l soluble silicate salt

12.1.4 Toxicity to sediment organisms
Freshwater sediment organisms:
EC_{50}/LC_{50}: 50,000 mg/kg dry weight MICROSILICA – SIOXID
EC_{10}/LC_{10} or NOEC: 49 mg/kg dry weight MICROSILICA – SIOXID

12.1.5 Toxicity to soil macroorganisms
Low toxicity is assumed. Based on available exposure and effect data for MICROSILICA – SIOXID, targeted ecotoxicological testing is currently not required.

12.1.6 Toxicity to terrestrial plants
Low toxicity is assumed. Based on available exposure and effect data for MICROSILICA – SIOXID, targeted ecotoxicological testing is currently not required.

12.1.7 Toxicity to soil microorganisms
Low toxicity is assumed. Based on available exposure and effect data for MICROSILICA – SIOXID, targeted ecotoxicological testing is currently not required.

12.1.8 Toxicity to aquatic microorganisms
Insufficient data available.

12.1.9 Toxicity to birds
Low toxicity is assumed. Based on available exposure and effect data for MICROSILICA – SIOXID, targeted ecotoxicological testing is currently not required.

12.2 Persistence and degradability

Abiotic degradation: No relevant data available
Physical and photochemical elimination: No relevant data available
Biodegradation: Not applicable for inorganic substances.

12.3 Bioaccumulative potential

Low or no tendency.

12.4 Mobility in soil

The substance is completely non-volatile and only moderately soluble in water under acidic, neutral, or slightly alkaline conditions (< 1000 mg/l). In undersaturated solutions (< 100 mg/l), silica exists as dissolved silicic acid ($Si(OH)_4$), while in more concentrated solutions it may form dimers, trimers, colloidal solutions, or colloidal aggregates of various sizes, or appear as bulk insoluble material. Dissolved $Si(OH)_4$ is known to be relatively mobile in soil. Adsorption of dissolved silica onto the inorganic fraction of soil is generally weak, and its affinity for soil organic matter is low to negligible.

12.5 Results of PBT and vPvB assessment

The substance is inorganic and cannot be classified as PBT/vPvB.
It is not known to contain any impurities >0.1 % or <0.1 % that would qualify as PBT/vPvB.

12.6 Properties of endocrine disruptors

The substance does not contain any components at concentrations >0.1 % that meet the definition of confirmed endocrine disruptors under any EU regulation.

12.7 Other adverse effects

No other adverse effects identified.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

The substance is not listed as hazardous waste in the European Waste Catalogue (Decision 2000/532/EC) nor under Directive 2008/98/EC on waste.
Unused product should be recycled in accordance with national legislation.
Disposal must comply with environmental protection requirements and applicable waste disposal regulations.

13.1.1 Disposal of the product/packaging

Information not available.

13.1.2 Information on waste treatment

For disposal within the EU, the appropriate code according to the European Waste Catalogue (EWC) should be used. It is the responsibility of the polluter to assign waste codes specific to industrial sectors and processes according to the European Waste Catalogue (EWC).

13.1.3 Information on waste water disposal

Do not discharge into drains or sewers.

13.1.4 Other disposal recommendations

Information not available.

14. TRANSPORT INFORMATION

The substance **is not classified** as hazardous for transport. Transport is in accordance with ADR/TPED for road transport, RID for rail transport, IMDG for sea transport, ICAO/IATA for air transport, and ADN for inland waterways.
During normal transport—by rail or road—the material may be transported in bulk in tankers or closed containers.
When packaged in sealed, impermeable big bags or other closed and impermeable packaging, it may be transported in open vehicles.
Contact with water must be avoided during transport.

14.1. UN number or Identification Number

Not applicable.

14.2. UN proper Shipping Name

Not applicable.

14.3. Transport Hazard Class(es)

Not applicable.

14.4. Packing Group

Not applicable.

14.5. Environment Hazards

Not classified as environmentally hazardous.

14.6. Special precautions for user

None.

14.7. Bulk Transport According to IMO Instruments

Not applicable.

15. REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

EU regulations:
Regulation (EC) No 1907/2006 REACH
Regulation (EC) No 1272/2008 CLP
Commission Regulation (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006 (REACH)
Dangerous Substances Directive 67/548/EEC
Dangerous Preparations Directive 1999/45/EC
Commission Decision 2000/532/EC (European Waste Catalogue)

Directive 1999/30/EC relating to limit values for sulfur dioxide, nitrogen dioxide, nitrogen oxides, particulate matter and lead in ambient air

15.2 Chemical safety assessment

Chemical Safety Report issued on 9 September 2010.

16. OTHER INFORMATION

16.1 List of abbreviations used

Abbreviation	Meaning
ADR/RID	European Agreement concerning the International Carriage of Dangerous Goods by Road / Rail
BAT-AEL	Conclusions on Best Available Techniques – Associated Emission Levels
BC code	Code of Safe Practice for Solid Bulk Cargoes, International Maritime Organization (IMO)
CAS No.	Numerical identifier assigned to chemical substances by the Chemical Abstracts Service (CAS)
CLP	Classification, Labelling and Packaging of substances and mixtures (Regulation (EC) No 1272/2008)
DNEL	Derived no-effect level
EC No.	European Commission number assigned to a chemical substance
EC_{50}	Half maximal effective concentration
EAF	Electric Arc Furnace
EU	European union
IATA	Dangerous Goods Regulations of the International Air Transport Association
IMDG	International Maritime Dangerous Goods Code
IMO	International Maritime Organization
LC_{10}	Lethal Concentration causing 10% mortality
LC_{50}	Median Lethal Concentration causing 50% mortality
NPEL	Maximum Permissible Exposure Limits for gases, vapours, and aerosols with predominantly toxic effects in workplace air
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent, Bioaccumulative and Toxic substances
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
T/D test	Solubility test
UN No.	Four-digit number identifying hazardous goods, substances and articles (United Nations)
UVCB	Substances of Unknown or Variable composition, Complex reaction products or Biological materials
vPvB	Very persistent and Very bioaccumulative substances

16.2 List of changes compared to the previous revision

Replaces MSDS “KBU-OFZ-03-EN”, Rev. 7 dated 12 December 2022.

16.3 Key Resources

1. Chemical Safety Report issued on 9 September 2010
2. STN EN 13263-1:2005+A1:2009 Silica Fume for Concrete
3. Regulation (EC) No 1907/2006 (REACH)
4. Regulation (EC) No 1272/2008 (CLP)
5. Regulation (EU) 2020/878 (Annex II to REACH Regulation)

16.4 Other information

The information contained in this document corresponds to our current knowledge and complies with applicable legal requirements concerning information, packaging, and labelling of hazardous chemical substances. Compliance with the data contained in this Safety Data Sheet is the responsibility of the product user and does not exempt them from respecting all legislative, regulatory, and administrative texts concerning the product, safety, hygiene, and environmental protection.

16.5 Annex

Table 1: Uses of the substance or preparation (Industrial worker uses)

Identified Use	Substance supplied for the intended use	Process Category (PROC)	Product Category (PC)	Environmental Release Category (ERC)	Use Sector (SU)	Article Category (AC)
Production: by-product of FeSi or Si-metal production by smelting in EAF (reduction of quartz with carbon) or by-product of zirconium oxide (ZrO2) production by carbon desilication in EAF	aa such	3,4,8a,8b, 9,22,23,26	0 Other: Site and construction preparation	1	13,14 0 Other: NACE code C24.1 and C23.4	-
Production of refractory materials: bricks, tiles, tableware, sanitary ceramics, clay pipes for high-temperature processes, refractory concrete, special concrete types / production of unshaped aluminosilicate refractory materials	as such or in mixture	1, 2, 3, 4, 5, 8a, 8b, 9, 19, 21, 23, 24	-	3,5	13 0 Other: NACE code C23.20	2
Additive to silicon carbide (SiC) for manufacturing firing furnace accessories.	as such or in mixture	4,5,8a,9,26	0 Other: Site and construction preparation	3,5	13 0 Other: NACE code C23.20	4
Surface protection against wear	as such or in mixture	3, 4, 5, 7, 9, 10, 11, 19, 21, 23, 24	9a,9b	3,5	13	-
Manufacture of special types of ceramics.	aa such	1, 2, 3, 4, 5, 8a, 8b, 9, 19, 21, 23, 24	0 Other: Site and construction preparation	3,5	13 0 Other: NACE code: C23.44	0 Other: Construction products and materials for outdoor use: wall construction materials, surface treatment materials for roads and pavements, ceramic, metal, plastic and wooden construction materials, insulating materials.
Cement industry: raw material for clinker production	aa such	22	-	3,5	13 0 Other: NACE code: C23	-
Production of fume/clinker/... including preparations: cement, hydraulic binders, low-silica material with controlled properties, concrete (ready-mix or precast), mortar, injection mortar	aa such	3, 4, 5, 8a, 8b, 9	0 Other: Site and construction preparation	3,5	13 0 Other: NACE code: C23	0 Other: Construction products and materials for outdoor use: materials for wall construction, surface treatment materials for roads and pavements, ceramic, metal, plastic and wooden construction materials, insulating materials.
Additive to fillers for defect repair in wood, plaster, and masonry, and in glass production	aa such	1, 2, 3, 4, 5, 8a, 8b, 9, 14, 19, 23	0 Other: Site and construction preparation	3,5	13 0 Other: NACE code: C23.61 a C23.1	4 0 Other: Construction products and materials for outdoor use: materials for wall construction, surface treatment of roads and pavements, ceramic, metal, plastic and wooden construction materials, insulating material.

Manufacture of shaft drilling products	aa such	1,3,8a,8b	-	3,5	13	-
Manufacture of shaft drilling and ground reinforcement products for mining and quarrying applications	aa such	1,3,5,8a, 8b,26	20	10b	2a,2b	-
Production of inorganic pigments	as such or in mixture	2,3	9a,9b,18	1	9 0 Other: NACE code: C20.12 a C20.30	13
Component in the formulation of monolithic refractory materials	aa such	1, 2, 3, 4, 5, 8a, 8b, 9, 19	-	1	9	-
Manufacture of processing aids used in the chemical industry	aa such	2	20	2	9	-
Fertilizers: siliceous fertilizers for agricultural use and anti-caking agents used in synthetic fertilizers	aa such	5,8b,11,19,26	12	10b	1	-
Manufacture of seals, sealing inserts, sealing materials, and plugs; rubber materials; and rubber materials with coatings and chemical pigments	aa such	1, 2, 3, 5, 6, 7, 8a, 8b, 9, 10, 13, 14, 15, 19, 23	32	3,6d	11 0 Other: NACE code: C22.19a C20.30	1,2,3,5,8,10 0 Other: Construction products
Manufacture of elastomeric polymers, thermoplastics, and plastics with coatings and chemical pigments	aa such	1, 2, 3, 5, 6, 7, 8a, 8b, 9, 10, 13, 14, 15, 19, 23	32	3,6c	12 0 Other: NACE code: C22.20a C20.30	1,2,3,5,8,10 0 Other: Construction products
Use of the substance as an intermediate	aa such	1	19	6a	9	-

Table 2: Uses of the substance or preparation (Professional worker uses)

Identified Use	Substance supplied for the intended use	Process Category (PROC)	Product Category (PC)	Environmental Release Category (ERC)	Use Sector (SU)	Article Category (AC)
Additive (mineral filler) in the production of (ready-mixed) concrete, repair products (mortars and injection mortars), sprayed concrete	as such or in mixture	4,5,8a,9,26	0 Other: Site and construction preparation	3	-	-
Manufacture of sealants, glues, and adhesives	as such or in mixture	3, 4, 5, 7, 8b, 9, 10, 11, 19	1,9a,9b	2	-	-
Manufacture of polymers	as such or in mixture	1, 2, 3, 4, 5, 6, 7, 8a, 8b, 9, 14, 19, 22, 23, 26	32	3,4,5,6a,6b,6c	-	-
Component in the blending of refractory materials	aa such	4, 5, 8a, 9, 14, 19, 21, 23, 24, 26	-	5	-	-
Manufacture of thinners, detergents, cleaning agents and gypsum	aa such	2,3,5,8a,9,10	35,9a,9b	2	-	-
Use by professionals in construction and building works (e.g. chemical substances used in construction: cement, hydraulic binder, low-strength material with controlled properties, soil stabilization and improvement; mineral filler in asphalt pavements and asphalt products; shotcrete in tunnels))	as such or in mixture	1, 2, 3, 5, 7, 8a, 8b, 9, 10, 11, 13, 15, 19, 26	9b 0 Other: Road construction (asphalt and asphalt products)	10a	-	-
Manufacture of base metals, including alloys and alloyed products with coatings and chemical dyes	aa such	1, 2, 3, 4, 5, 7, 8a, 8b, 9, 10, 13, 15, 19, 22, 26	7	5	-	-
Professional use of glues and adhesives	in mixture	8a, 8b, 9, 11, 13, 19	1	8f	-	-

Table 3: Uses of the substance or preparation (Consumer uses)

Identified Use	Process Category (PROC)	Product Category (PC)	Environmental Release Category (ERC)	Use Sector (SU)	Article Category (AC)
Consumer use of glues and adhesives	-	-	8f	-	-

Approved by:

Milan Harcek
technical director - signed

Edited by:

Zuzana Bohúňová
QHSE manager - signed