

1. Identification of the Substance/Preparation and Company

Product name: **FeSi Briquettes, BriqSil®**

Application: Preparation for steel and iron alloying in smelting industry.
Preparative for professional use only.

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REACH and CLP helpdesk: <https://echa.europa.eu/support/helpdesks/>

Emergency Phone No.: not applicable for non-hazardous substances and mixtures.

2. Hazards Identification

The product does not meet the criteria for hazard classification in accordance with Regulation (EC) No 1272/2008 (CLP) and the UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS), 9th revision as amended.

The product 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.

FeSi-dust suspended in air may under certain conditions cause dust explosions. See section 10.

3. Composition/Information on Ingredients

Solid briquettes contain:

Constituent	CAS No.	EINECS No.	Weight %	Classification: 1272/2008/EC, Annex VI, Table 3.	Notified classification according to CLP criteria
Ferrosilicon (FeSi) powder	8049-17-0	912-631-7	86 – 96	-	
Starch binder	9005-25-8	232-679-6	2 – 6	-	
Silicic acid, sodium salt	1344-09-8	215-687-4	2 – 8	-	Skin Irrit. 2 Eye Dam. 1.

The product was tested for adverse effects on skin and eyes in accordance with OECD 437 and 439. The classification criteria were not met.

4. First Aid Measures

Inhalation: Fresh air. See a physician on persistent feeling of discomfort.
Skin contact: Wash contaminated skin with water and/or a mild detergent.
Eye contact: Rinse eyes with water/saline solution. See a physician on persistent feeling of discomfort.
Ingestion: Remove the person affected from dust-exposed area. See inhalation.

5. Fire Fighting Measures

The product is non-flammable.
Extinguishing media: Dry sand, CO₂ or dry powder.

Do not use water-based extinguishing media.
In contact with water, the product may release toxic gases (arsine, phosphine).

6. Accidental Release Measures

Avoid contact with water and humidity. Material in the form of dust should be collected in suitable containers.
Avoid handling that generates dust build-up. Residues may be delivered to approved incinerates.

7. Handling and Storage

Handling: Avoid generating airborne dust. Avoid inhalation of dust. See section 8.
Storage: Store in the original container in dry and well-ventilated areas. Protect from water and humidity.

8. Exposure Controls/Personal Protection

A) Occupational exposure controls:

Ensure good dust ventilation. Wear a particulate respirator according to EN 149 FFP2 in areas of inadequate ventilation. Protective gloves, eye protection, eye flushing facilities and respiratory protection.
Avoid inhalation of dust. Avoid contact with skin and eyes.



Workplace Exposure Limits (HSE, EH40/2005)

Table 1: List of approved workplace exposure limits (as consolidated with amendments, December 2011):

Substance	CAS number	8 hour TWA		15 minute STEL	
		ppm	mg/m ³	ppm	mg/m ³
Inhalable dust	-	-	10	-	-
Respirable dust	-	-	4	-	-
Phosphine gas (PH ₃)	7803-51-2	0.1	0.14	0.2	0.28
Arsine gas (AsH ₃)	7784-42-1	0.05	0.16	-	-

EU OEL: Commission Directive 2006/15/EC

Indicative occupational exposure limit values:

Substance	CAS number	8 hour		15 minute	
		ppm	mg/m ³	ppm	mg/m ³
Phosphine	7803-51-2	0.1	0.14	0.2	0.28

Elkem has devised a "Procedure for sampling, measuring and reporting of phosphine (PH₃), arsine (AsH₃) and airborne particulates" of the workplace atmosphere (1994). The low occupational exposure limit for arsine gas is due to the evidence for carcinogenicity in humans of inorganic arsenic compounds in general (IARC). The OEL for dust does not cover possible arsine/phosphine absorption from dust deposited on mucous membranes.

B) Environmental exposure controls

Target value and limit value for PM₁₀ and PM_{2.5} (Directive 2008/50/EC):

	Averaging period	Limit value
PM ₁₀	One day	50 µg/m ³ ★
PM ₁₀	Calendar year	25 µg/m ³
PM _{2.5}	Calendar year	15 µg/m ³

★Not to be exceeded more than 30 times per calendar year.

9. Physical and Chemical Properties

Form	: Solid - briquettes.
Colour	: Grey.
Odour	: Odourless, gases released after contact with water have garlic-like odor.
Solubility	: Insoluble.
Solubility (Organic solvents)	: Insoluble.
Density (kg/m ³)	: 2.5-7.3

10. Stability and reactivity

Conditions to avoid:
Water and humidity

Materials to avoid:
-

Hazardous Decomposition Product(s):
Arsine, phosphine.

11. Toxicological Information

The product does not meet the criteria for hazard classification according to Regulation (EC) No 1272/2008 (CLP) and the UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS, 9th rev.).

Endocrine disrupting properties: Available data for the product 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.

Acute effects:

INGESTION:	Dust may cause irritation and dehydration of mucous membranes.
INHALATION:	Dust may cause irritation and dehydration of mucous membranes.
SKIN CONTACT:	Dust may cause irritation and dehydration.
EYE CONTACT:	Dust may cause irritation and dehydration.

The product was tested for adverse effects on skin and eyes in accordance with OECD 437 and 439. The classification criteria were not met.

12. Ecological Information

The product is not characterised as dangerous for the environment.

MOBILITY: The product is not mobile in the environment under normal environmental conditions.
PERSISTENCE: Not relevant for inorganic substances.
BIOACCUMULATION: Not relevant, due to low mobility and non-dispersive use.
ECO-TOXICITY: Not relevant for inorganic, insoluble substances.

Endocrine disrupting properties: Available data for the product 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.

13. Disposal Considerations

The material should be recovered for recycling where possible.

Waste from the product is not considered as hazardous waste according to Directive 2008/98/EC "Waste Framework Directive" and Commission Decision 2000/532/EC as amended.

Prior to disposal of large quantities of this material, advice should be sought from the local Environment Agency office.

14. Transport Information

UN -
IMDG/IMO Not subject to classification
ADR/RID Not subject to classification
ICAO/IATA Not subject to classification

15. Regulatory Information

The text of this Product Safety Information is prepared in compliance with:

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), as amended.
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP), amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
- UN Globally Harmonized System of Classification and Labelling of Chemicals, 9th rev.

16. Other Information

According to Chapter 1.5.2 of the UN Globally Harmonized System of classification and labelling of chemicals (GHS), Article 58 (2)(a), and 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 that meet the harmonized criteria for physical-, health- or environmental hazards. Since this product does not meet these criteria, an SDS according to 2020/878/EU is not issued. In order to communicate relevant HSE-(health, safety and environmental-) information, this product safety information (PSI) is provided instead.

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.

Changes from revision 00 to 01: Company's email and web address changed, fax number removed, risk of FeSi-dust added in section 2, GHS updated from 8th to 9th edition.