

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

BiogasGT s.r.o.	FeSfix /iron oxide compound/	Date of compilation: 2014-05-20 Revision date: - Page 1 of 9
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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier:

Trade name: Iron oxide compound (FeSfix)

EC number: not assigned

CAS number: not assigned

REACH registration number: Natural product. No registration required according to 1907/2006 EC Chapter 2(7)(b) and Annex V, Sentence 7.

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

Natural product. Raw material for industry – ferrous additive at the biogas production.

Uses advised against: Not identified.

1.3 Details of the supplier of the safety data sheet:

BiogasGT s.r.o.

Mudroňova 26

SK-811 01 Bratislava

Tel.: + 421 918643556

E-mail: office@biogasgt.sk

Competent person responsible for the safety datasheet: office@biogasgt.sk

1.4 Emergency telephone number:

Poison centers, Europe: <http://www.who.int/pcs/poisons/centre/directory/euro/en/>

See SECTION 16.6 for the list of telephone numbers of poison centers in the European Economic Area.

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

2.1.1 Classification according to Regulation (EC) No 1272/2008 (CLP):

Specific target organ toxicity – repeated exposure: STOT RE 2, H373

2.1.2 Classification according to Directive 1999/45/EC (DPD):

Harmful: Xn; R48/20

2.1.3 Other information: For full text of R-phrases: see SECTION 16.

2.2 Label elements:

Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word

Warning

Pictograms



Hazard statements

H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Precautionary statements - prevention

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P285 In case of inadequate ventilation wear respiratory protection.

Precautionary statements - response

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P314 Get medical advice/attention if you feel unwell.

Precautionary statements - disposal

P501 Dispose of contents/container to industrial combustion plant.

Hazardous ingredients for labelling: Contains nickel powder. May produce an allergic reaction.

2.2 Other hazards: It is a very fine dust, may cause mechanical irritation and soreness. May cause damage when inhaled into the lungs. Contact with eyes may cause irritation. Frequent or prolonged contact may cause skin irritation.

This product contains quartz (fine respirable fraction) between 1 and 10%. Long-term and continuous inhalation of respirable crystalline silica can cause lung fibrosis, commonly called as silicosis. The main symptoms of silicosis are cough and breathlessness. Exposure to respirable dust at work should be monitored and controlled. The product should be handled using methods and technologies that minimize or eliminate the formation of dust.

Material is not radioactive.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances: UVCB substance with components:

Ingredient Name	Note	EC/ CAS number	Classification				Conc. (%)
			67/548/EEC (DSD)	CLP			
				Haz. Categories	Prec. statements	Pictogram Signal word	
¹ iron	-	231-096-4/ 7439-89-6	-	-	-	-	52
¹ quartz	-	238-878-4/ 14808-60-7	*toxic; T; R48/23	STOT RE 1	H372	GHS08 Dgr	<10
¹ aluminium oxide	-	215-691-6/ 1344-28-1	-	-	-	-	6
¹ calcium oxide	-	215-138-9/ 1305-78-8	-	-	-	-	4
¹ magnesium oxide	-	215-171-9/ 1309-48-4	-	-	-	-	4
Nikel (II) – Sulphate hexahydrate	S.7 (CLP)	232-104-9/ 10101-97-0	toxic; T; R48/23 sensitising; Xi; R43 carcinogenic; Carc. Cat. 3; R40 dangerous for the environment; R52-53	Carc. 2 STOT RE 1 Skin Sens. 1 Aquatic Chronic 3	H302 + H332 H315 H334 H317 H350i H360D H372 H410	GHS08 GHS07 Dgr	<1

¹ Substance with no classification according to CLP Regulation (EC) 1272/2008.

² Substance with OEL.

*Classification source: IMA EUROPE, Position Paper (January 2014), Classification and labelling of crystalline silica (fine fraction)

For full text of abbreviations: see SECTION 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of

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unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes, holding the lids apart. Seek medical assistance.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. Seek medical assistance.

4.2 Most important symptoms and effects, both acute and delayed

See the sections 2 and 16.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

water spray, alcohol resistant foam

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

nitrogen oxides (NO_x), carbon monoxide (CO), carbon dioxide (CO₂)

5.3 Advice for firefighters

Coordinate firefighting measures to the fire surroundings.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Avoid dust formation. Ensure adequate ventilation. Use personal protective equipment (see section 8). Keep material humidity in range of 5-15%.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions: Do not allow uncontrolled discharge of product into the environment. Do not allow contact with soil, surface or ground water.

6.3 Methods and materials for containment and cleaning up:

Clean contaminated floors and objects thoroughly while observing environmental regulations. Avoid dust formation. Treat recovered material as described in the section "Disposal considerations".

6.4 Reference to other sections Hazardous combustion products: see section 5. Personal protective equipment: see section 8.

Incompatible materials: see section 10. Disposal considerations: see section 10.

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SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. Contaminated equipment (brushes, rags) must be cleaned immediately with water. Floors, walls and other surfaces must be regularly cleaned. Smoking, eating and drinking should be prohibited in the application area. Keep material humidity in range of 5-15%.

7.2 Conditions for safe storage, including any incompatibilities

Stable under recommended storage conditions.

7.3 Specific end use(s)

This information is not available. See section 1.2

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

National limit values (UK)

Occupational exposure limit values (Workplace Exposure Limits)

Relevant DNELs/DMELs/PNECs and other threshold levels

No data available.

Ingredient name	Type	Exposition	OELV	Person	Effect
Hematite, as Fe	DNEL	STEL	10mg/m ³	worker	Local
	DNEL	TWA	5mg/m ³	worker	Local
Crystalline silica RCS		WEL	0.1mg/m ³	worker	Local

Airborne dust limits: inhalable dust = 10mg/m³, respirable dust = 3mg/m³

Other countries:

OEL-Austria: MAK 6 mg/m³ (dust, fume)

OEL-Belgium: MAK 5 mg/m³ (dust, fume)

OEL-Denmark: TWA 3.5 mg/m³ (as Fe)

OEL-Finland: TWA 5 mg/m³ (dust, fume)

OEL-France: VME 5 mg/m³ (dust, fume)

OEL-Germany: MAK 6 mg/m³ (dust, fume)

OEL-Italy: TWA 5 mg/m³ (as Fe)

OEL-Italy: STEL 10 mg/m³ (as Fe)

OEL-The Netherl.: MAC-TGG 10 mg/m³ (resp. dust)

OEL-The Netherl.: MAC-TGG 5 mg/m³ (inhal. dust)

OEL-Norway: TWE 3 mg/m³ (as Fe)

OEL-Norway: TWE 10 mg/m³ (dust/fume)

OEL-Poland: MAC(TWA) 5 mg/m³ (dust/fume)

OEL-Spain: VLA-DE 5 mg/m³ (dust as Fe)

OEL-Sweden: NGV 3.5 mg/m³ (dust/fume)

OEL-Switzerland: MAK-W 6 mg/m³ (dust/fume)

(MAK=Maximale Arbeitsplatzkonzentration, MAC-TGG= Maximale aanvaarde concentratie-Tijdgewogen gemiddelde, TWA=Time Weighted Average, STEL=Short Term Exposure Limit, VME= Valeurs limites de moyenne d'exposition, VLA-DE=Valores de Eposición Diaria, NGV=Nivågränsvärde)

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Substance Quartz
CAS No. 14808-60-7

	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m ³	ppm	mg/m ³
Australia		0.1 (1)		
Austria		0,15 respirable aerosol		
Belgium		0,1		
Canada - Ontario		0,1 (1)		
Canada - Québec		0,1		
Denmark		0,3 inhalable aerosol		0,6 inhalable aerosol
		0,1 respirable aerosol		0,2 respirable aerosol
European Union	-	-	-	-
France		0,1 respirable aerosol		
Hungary		0,15 respirable aerosol		
Ireland		0,1 (1)		
New Zealand		0,2 (1)		
Singapore		0,1 respirable aerosol		
South Korea		0,05		
Spain		0,1 (1)		
Sweden		0,1 respirable aerosol		
Switzerland		0,15 respirable aerosol		
The Netherlands		0,075 respirable dust		
USA - NIOSH		0,05		
USA - OSHA		30/(%silica+2) total dust		
		10/(%silica+2) respirable dust		

Source: GESTIS

8.2 Exposure controls:

8.2.1 Appropriate engineering controls: Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards EN 140 and EN 141, 143 or 149 should be worn.

8.2.2 Individual protection measures, such as personal protective equipment: Wear dust-appropriate suit (tight woven overalls) to avoid dust to reach the skin. Prevent naked skin for soiling. Use rubber safety gloves (EN 420/EN 374) or skin-protecting ointments when direct in contact with the pigment.

Prevent eyes for dust. Use safety glasses with side-shields.

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Handle in accordance with good industrial hygiene and safety practice. Keep away from food and drink or smoke at work. See section 7 and 4.

8.2.3 Environmental exposure controls: Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Physical state

fine powder

Odour characteristic

odourless

Other physical and chemical parameters

pH (value)

not determined

Melting point/freezing point

not determined

Initial boiling point and boiling range

not determined

Flash point

not determined

Evaporation rate

not determined

Flammability (solid, gas)

not flammable

Explosive limits

not explosive

Vapour pressure

not determined

Density

not determined

Relative density

not available

Solubility(ies)

not determined

Partition coefficient n-octanol/water (log KOW)

This information is not available.

Auto-ignition temperature

not determined

Viscosity

not determined

Explosive properties

none

Oxidising properties

none

9.2 Other information

Not available.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No known hazardous reactions.

10.2 Chemical stability

Stable at general conditions.

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Physical stresses which might result in a hazardous situation and have to be avoided

10.5 Incompatible materials

No hazardous reactions.

10.6 Hazardous decomposition products

This information is not available.

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SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Test data are not available.

The method for classification is based on ingredients of the UVCB substance (additivity formula – as for mixture).

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Shall not be classified as acutely toxic.

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

Summary of evaluation of the CMR properties

Shall not be classified as carcinogenic.

Shall not be classified as germ cell mutagenic.

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity (STOT)

Shall not be classified as a specific target organ toxicant (single exposure).

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity: Shall not be classified as hazardous to the aquatic environment.

12.2 Process of degradability: Data are not available.

12.3 Bioaccumulative potential: Data are not available.

12.4 Mobility in soil: Data are not available.

12.5 Results of PBT and vPvB assessment: Data are not available.

12.6 Other adverse effects: Data are not available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number (not subject to transport regulations)

14.2 UN proper shipping name not relevant

14.3 Transport hazard class(es) -

14.4 Packing group not relevant

14.5 Environmental hazards none (non-environmentally hazardous acc. to the dangerous

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goods regulations)

14.6 Special precautions for user There is no additional information.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Transported in railway wagons. The intermodal transport by vehicles is possible, respectively shipping. It is recommended to keep the humidity around 5-15%, to avoid the potential of the material release into the air.

SECTION 15: REGULATORY INFORMATION

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

Relevant provisions of the European Union (EU)

REACH Regulation Annex XVII Restrictions:

Nickel CAS 10101-97-0, EC 232-104-9 and its compounds:

1. Shall not be used:

(a) in any post assemblies which are inserted into pierced ears and other pierced parts of the human body unless the rate of nickel release from such post assemblies is less than 0,2 µg/ cm² /week (migration limit);

(b) in articles intended to come into direct and prolonged contact with the skin such as: — earrings, — necklaces, bracelets and chains, anklets, finger rings, — wrist-watch cases, watch straps and tighteners, — rivet buttons, tighteners, rivets, zippers and metal marks, when these are used in garments, if the rate of nickel release from the parts of these articles coming into direct and prolonged contact with the skin is greater than 0,5 µg/cm² /week.

(c) in articles referred to in point (b) where these have a non-nickel coating unless such coating is sufficient to ensure that the rate of nickel release from those parts of such articles coming into direct and prolonged contact with the skin will not exceed 0,5 µg/cm² / week for a period of at least two years of normal use of the article.

2. Articles which are the subject of paragraph 1 shall not be placed on the market unless they conform to the requirements set out in that paragraph.

3. The standards adopted by the European Committee for Standardisation (CEN) shall be used as the test methods for demonstrating the conformity of articles to paragraphs 1 and 2.

15.2 Chemical Safety Assessment: Chemical safety assessments was not carried out.

SECTION 16: OTHER INFORMATION

List of relevant phrases (code and full text as stated in chapter 2 and 3):

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H372 Causes damage to organs through prolonged or repeated exposure.

H373 May cause damage to organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

R40 Limited evidence of a carcinogenic effect.

R43 May cause sensitisation by skin contact.

R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

R48/23 Toxic: danger of serious damage to health by prolonged exposure through inhalation.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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This information is based upon the present state of our knowledge. This SDS has been compiled based on data provided by Ferrera resources a.s. and is solely intended for this product.

Emergency telephone number

Europe-wide emergency number: 112

Contact a poison control centre. List of Telephone Numbers :

AUSTRIA (Vienna Wien) +43 1 406 43 43; BELGIUM (Brussels Bruxelles) +32 70 245 245;
BULGARIA (Sofia) + 359 2 9154 409; CZECH REPUBLIC (Prague Praha) +420 224 919 293;
DENMARK (Copenhagen) 82 12 12 12; ESTONIA (Tallinn) 112; FINLAND (Helsinki) +358 9
471 977; FRANCE (Paris) +33 1 40 0548 48; GERMANY (Berlin) +49 30 19240; GREECE
(Athens Athinai) +30 10 779 3777; HUNGARY (Budapest) 06 80 20 11 99; ICELAND
(Reykjavik) +354 525 111, +354 543 2222; IRELAND (Dublin) +353 1 8379964; ITALY (Rome)
+39 06 305 4343; LATVIA (Riga) +371 704 2468; LITHUANIA (Vilnius) +370 5 236 20 52 or
+370 687 53378; MALTA (Valletta) 2425 0000; NETHERLANDS (Bilthoven) +31 30 274 88 88;
NORWAY (Oslo) 22 591300; POLAND (Gdansk) +48 58301 65 16 or +48 58 349 2831;
PORTUGAL (Lisbon Lisboa) 808 250 143; ROMANIA (Bucharest) +40 21 3183606
SLOVAKIA (Bratislava) +421 2 54 77 4166; SLOVENIA (Ljubljana) + 386 41 650 500; SPAIN
(Barcelona) +34 93 227 98 33 or +34 93 227 54 00 bleep 190; SWEDEN (Stockholm) 112 or +46
8 33 12 31 (mon-fri 9.00-17.00); UNITED KINGDOM (London) 112 or 0845 4647 (NHS Direct).