Safety data sheet

according to Regulation (EC) No. 1907/2006

PLANTS FE / Iron fertilizer

Version number: GHS 1.0 Date of creation: 08.08.2018

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name **PLANTS FE / Iron fertilizer**

Other designations

Product number BNGIR

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

Relevant identified uses Uses by consumers
Iron fertilizer for freshwater aquariums

1.3 Details of the supplier of the safety data sheet

ARKA Biotechnologie GmbH
Mühllach 53-55
91207 Röthenbach an der Pegnitz
Germany

Phone: +49 (0)911 5698610 00
Fax: +49 (0)911 5698610 29
e-mail (knowledgeable person) info@arka-biotech.de

1.4 Emergency number

Emergency information service ARKA Biotechnology GmbH
Available by phone Mon.-Fri. from 8:00-17:00
Phone: +49 (0)911 5698610 00

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

This mixture does not meet the criteria for classification in accordance with Regulation (EC) No 1272/2008 EC.

2.2 Labeling according to Regulation (EC) No. 1272/2008 (CLP)

not required

Hazard warnings

not required

Safety instructions

not required

2.3 Other hazards

No additional information is available.

SECTION 3: Composition/information on ingredients

3.1 Fabrics

not applicable

3.2 Mixtures

Chemical characterization Aqueous solution

Additional information:

The preparation does not contain any hazardous substances in quantities which, according to the EU law must be mentioned in this section. Contains sodium azide < 0.1% (0.0225%)

SECTION 4: First aid measures

4.1 Description of first aid measures General notes

Remove soiled, soaked clothing immediately. If symptoms occur or in cases of doubt seek medical advice.

After inhalation

Provide fresh air. If symptoms persist, consult a doctor.

After contact with the skin

Wash skin with water/shower. If irritation or symptoms of poisoning occur, consult a doctor.

After contact with the eyes

Keep eyelids open and rinse thoroughly with clean, running water for at least 10 minutes. Remove any contact lenses if possible. Continue rinsing. If irritation or signs of poisoning occur, consult a doctor.

After ingestion by swallowing

Rinse mouth thoroughly with water. Induce vomiting. Do not induce vomiting without medical advice. Drink plenty of water, preferably with activated charcoal, and consult a doctor if irritation or symptoms of poisoning occur.

4.2 Information on immediate medical assistance or special treatment

No information available.

SECTION 5: Fire-fighting measures

5.1 Extinguishing agent

Suitable extinguishing agents

The product is not flammable. The extinguishing measures must therefore be geared towards the surroundings.

Unsuitable extinguishing agents

None

5.2 Special hazards arising from the substance or mixture

Hazardous vapors may be generated by surrounding fire.

Hazardous combustion products

In the event of fire, the following can be produced: Nitrogen oxides (NOx), carbon monoxide and carbon dioxide.

5.3 Instructions for firefighting

Fight the fire with the usual precautions from an appropriate distance. Stay in the danger zone only with self-contained breathing apparatus. Avoid skin contact by keeping a safe distance or wearing suitable protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing. Avoid contact with eyes and skin.

6.2 Environmental protection measures

Prevent the product from entering the sewage system or surface and ground water.

6.3 Methods and material for retention and cleaning

Instructions on how to prevent spilled materials from spreading

Absorb mechanically with liquid-binding material (sand, diatomaceous earth, acid binder, universal binder).

Further information on spillage and release

Dispose of in suitable containers. Ventilate the affected area.

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 13.

SECTION 7: Handling and storage

7.1 Protective measures for safe handling

Recommendations

Note on safe handling

Ensure good ventilation of the warehouse and workplace.
Avoid contact with skin, eyes and clothing. Wear personal protective equipment.

Advice on general hygiene in the workplace

Wash hands after use. Do not eat, drink or smoke in areas where work is being carried out. Remove contaminated clothing and protective equipment before entering areas where food is eaten. Do not store food and drinks together with chemicals. Do not use containers for chemicals that are normally intended for holding food. Keep away from food, drinks and animal feed.

7.2 Conditions for safe storage, taking into account incompatibilities

Store only in the original container. Keep container tightly closed. Do not freeze.
Storage class: 13 - Non-combustible solids that cannot be assigned to any of the aforementioned storage classes.

Incompatible substances or mixtures

Observe storage instructions.

7.3 Specific end uses

See section 1.2.

SECTION 8: Exposure controls/personal protective equipment

8.1 Parameters to be monitored

Contains no substances with **occupational** exposure limits

8.2 Exposure controls and monitoring

8.2.1 Suitable technical control equipment

Technical measures and the use of suitable work procedures take precedence over the use of personal protective equipment. See section 7.1.

8.2.2 Individual protective measures (personal protective equipment)

Eye/face protection

Wear safety goggles/face protection.

Skin protection

Wear protective clothing. Remove contaminated clothing and wash before reuse.

• Hand protection

Wear protective gloves.

• Type of material

Nitrile rubber

• Material thickness

>0.11 mm.

• Breakthrough time of the glove material

>480 minutes (permeation level: 6)

• Other protective measures

The information provided by the manufacturer of the protective gloves regarding permeability and breakthrough times must be observed.

Respiratory protection

If vapors occur, respiratory protection is required.
Use filter type A (= against vapors of organic compounds) according to EN 14387.

8.2.3 Limiting and monitoring environmental exposure

Use suitable containers to avoid contamination of the environment. Prevent penetration into the sewage lization or into surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties Appearance

Physical state	liquid
color	dark brown / greenish
Odor	Mild odor
Other physical and chemical parameters	
pH value	4,0 - 7,5
Melting point/freezing point	no data available
Initial boiling point and boiling range	no data available
Flash point	no data available
Evaporation rate	no data available
Flammability (solid, gaseous)	no data available
Explosion limits of dust/air mixtures	no data available
	no data available
Density	1.03 $/^{g}_{mL}$

Bulk density	no data available
Solubility(ies) Water solubility	99%
Partition coefficient n-octanol/water (log KOW)	No data available
Auto-ignition temperature	No data available
Viscosity	liquid
Explosive properties	none
Oxidizing properties	No data available

9.2 Other information

No data is available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

The material is stable under normal ambient conditions and under the temperature and pressure conditions to be expected during storage and handling.

10.3 Possibility of hazardous reactions

No hazardous reactions will occur if handled and stored as directed.

10.4 Conditions to avoid

Do not freeze.

10.5 Incompatible materials

No data available.

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products formed during use, storage, spillage and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Toxicological effects

Acute toxicity (oral): Lack of data.
Acute toxicity (dermal): Lack of data.
Acute toxicity (inhalation): Lack of data.
Skin corrosion/irritation: Lack of data.
Eye damage/irritation: Lack of data.
Respiratory sensitization: Lack of data.
Skin sensitization: Lack of data.
Germ cell mutagenicity/genotoxicity: Lack of data.
Carcinogenicity: Lack of data.
Reproductive toxicity: Lack of data.
Effects on and via breast milk: Lack of data.
Specific target organ toxicity (single exposure): Lack of data.
Specific target organ toxicity (repeated exposure): Lack of data.
Aspiration hazard: Lack of data.

SECTION 12: Environmental information

12.1 Toxicity

Not hazardous to water d.

12.2 Persistence and degradability

No data is available.

12.3 Bioaccumulative potential

No data is available.

12.4 Mobility in soil

No data is available.

12.5 Results of the PBT and vPvB assessment

13 No data is available.

13.1 Other harmful effects

Avoid release into the environment.

SECTION 13: Disposal instructions

13.1 Waste treatment processes

Product residues must be disposed of in accordance with the Waste Directive 2008/98/EC and national and regional regulations .

Information relevant for waste treatment

No data is available.

Information relevant for disposal via wastewater

Do not allow to enter drains.

Waste treatment of containers/packaging

Waste code number 15 01 02 = Plastic packaging
Disposal according to official regulations.

Notes

Please observe the relevant national or regional regulations. Waste must be separated in such a way that it can be treated separately by the municipal or national waste disposal facilities.

SECTION 14: Transport information

14.1	**UN number**	No dangerous goods as defined by national and international transport regulations (not subject to transport regulations)
14.2	**UN proper shipping name**	not relevant
14.3	**Transport hazard classes** Class	not applicable
14.4	**Packaging group**	not relevant
14.5	**Environmental hazards**	none (not hazardous to the environment according to dangerous goods regulations)

14.6 Special precautions for the user

No additional information is available.

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

No data available.

SECTION 15: Legislation

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

National regulations (Austria)

• Ordinance on flammable liquids (VbF)

VbF (group and hazard class): not applicable

National regulations (Germany)

• Ordinance on Installations for the Handling of Substances Hazardous to Water

(AwSV) Water hazard class (WGK): not hazardous to water

• Storage of hazardous substances in portable containers (TRGS 510) (Germany)

Storage class (LGK): 12 (non-flammable liquids)

15.2 Chemical safety assessment

No chemical safety assessment has been carried out for this substance.

SECTION 16: Other information

Abbreviations and acronyms

Abbr.	Descriptions of the abbreviations used
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
AGW	Occupational exposure limit
CAS	Chemical Abstracts Service (database of chemical compounds and their unique key, the CAS Registry Number)
CLP	Regulation (EC) No. 1272/2008 on classification, labeling and packaging of substances and mixtures
CMR	Carcinogenic, Mutagenic or toxic for Reproduction (carcinogenic, mutagenic or toxic for reproduction)
DFG	German Research Foundation List of MAK and BAT values, Senate Commission for the Examination of Health Hazardous Substances, Wiley-VCH, Weinheim
DMEL	Derived minimal effect level (derived exposure level with minimal impairment)
DNEL	Derived No-Effect Level (derived exposure level without impairment)
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
Index no.	The index number is the identification code given in Part 3 of Annex VI to Regulation (EC) No 1272/2008.
KZW	Short-term value
LGK	Storage class according to TRGS 510, Germany
MARPOL	International Convention for the Prevention of Pollution from Ships (abbreviation of "Marine Pollu- tant")
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration (estimated no-effect concentration)
ppm	Parts per million (parts per million)
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals (Registration, Evaluation, Authorization and Restriction of Chemicals)
SMW	Shift average
TRGS	Technical Rules for Hazardous Substances (Germany)
TRGS 900	Occupational exposure limits (TRGS 900)
VbF	Ordinance on flammable liquids (Austria)
vPvB	Very Persistent and very Bioaccumulative (very persistent and very bioaccumulative)

Important literature and data sources

- Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU
- Regulation (EC) No. 1272/2008 (CLP, EU-GHS)

Disclaimer

This information is based on our current state of knowledge. This SDS has been compiled exclusively for this product and is intended solely for this product.