
VALAGRO SDS according to Regulation (EU) N. 453/2010
Date: 30/03/2015 Rev. 2.0
Product: 11286
Code: Brexil Fe
Print Date: 7 May 2015

SAFETY DATA SHEET

Brexil Fe

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifier

Mixture identification:

Trade name: Brexil Fe

Trade code: 11286

1.2. Relevant identified uses of the substance/mixture and uses advised against
Fertilizer

1.3. Details of the supplier of the safety data sheet

Company:

VALAGRO Spa

Via Cagliari, 1 Zona Industriale

66041 Atessa (CH) ITALY

Tel. (+39) 08728811 Fax (+39) 0872881382

www.valagro.com

Competent person responsible for the safety data sheet:

regulatory@valagro.com

1.4. Emergency telephone number

- VALAGRO SPA - Telephone (+39) 0872 8811; Telefax number. (+39) 0872 881382 (Monday to Friday from 8:30 to 13:00 and 14:00 to 17.30 (GMT+1))

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Directive criteria, 67/548/CE, 99/45/EC and following amendments thereof:

Properties / Symbols:

Xi Irritant

R Phrases:

R36/38 Irritating to eyes and skin.

EC regulation criteria 1272/2008 (CLP):

⚠ Warning, Skin Irrit. 2, Causes skin irritation.

⚠ Warning, Eye Irrit. 2, Causes serious eye irritation.

Adverse physicochemical, human health and environmental effects:

No other hazards

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2.2. Label elements

Symbols:



Warning

Hazard statements:

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P280 Wear protective gloves/safety goggles and face shield.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

P501 Dispose of contents/container in accordance with applicable regulations.

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

N.A.


3.2. Mixtures


Hazardous components within the meaning of EEC directive 67/548 and CLP regulation and related classification:


30% - 40% iron (II) sulfate

Index number: 026-003-00-7, CAS: 7720-78-7, EC: 231-753-5

Xn, Xi; R22-36/38

 3.3/2 Eye Irrit. 2 H319

 3.2/2 Skin Irrit. 2 H315

 3.1/4/Oral Acute Tox. 4 H302

For full text of H-statements and R-phrases: see SECTION 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

In case of skin contact:

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Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not under any circumstances induce vomiting. Rinse mouth with water and if the person is conscious give water to drink . OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

4.2. Most important symptoms and effects, both acute and delayed

No data available for the mixture

Symptoms related to iron sulphate:

Vomiting, diarrhoea, mild lethargy, upper abdominal pain, pallor, and hyperglycemia with more severe clinical findings including cyanosis, stupor, acidosis, haematemesis, shock, and coma (Aisen, 1990).

Corrosion of the gastric mucosa occurs in humans following iron overdose (Hoppe *et al.*, 1955).

4.3. Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

No data available

SECTION 5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO₂).

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces smoke containing carbon oxides, nitrogen oxides, sulfur oxides, and ammonia

5.3. Advice for fire-fighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

No action shall be taken involving any personal risk or without suitable training

- For non-emergency personnel:

Wear protective clothes giving a total skin protection, latex gloves and safety glasses.

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Keep away from the affected area people not involved in the emergency intervention.
Ensure adequate ventilation
Alert the internal emergency team.

- For emergency responders:

Wear protective clothes giving a total skin protection, latex gloves and safety glasses.

See protective measures under point 7 and 8.

Ensure adequate ventilation, move people in a safe place.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Dilute with water and retain contaminated wash water and dispose in authorized facilities or pick up in clean plastic labeled containers and reuse as fertilizer.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Collect the product for example using shovel and broom

Avoid raising dust

Wash with plenty of water and adsorb with organic material or sand collect the product absorbed for example using shovel and broom

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep in the original package in a cool well-ventilated place, away from sources of heat

Keep away from food, drink and feed.

Incompatible materials:

Bases, oxidizing and reducing agents.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

Fertilizer

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No data available for the mixture.

DNEL Exposure Limit Values

Iron (II) sulfate:

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Consumer:

DNEL (oral) mg/Kg/day = 0.8 Assumes 24 h/d exposure

DNEL (dermal) mg/Kg/day = 0.8 Assumes 24 h/d exposure

DNEL (inhalation) mg/m³ = 1.4 Assumes 24 h/d exposure

Worker:

DNEL (orale) mg/Kg/day = N.A. Assumes 8 h/d exposure

DNEL (pelle) mg/Kg/day = 1.6 Assumes 8 h/d exposure

DNEL (inalazione) mg/m³ = 5.5 Assumes 8 h/d exposure

PNEC Exposure Limit Values

	Value
PNEC _{sediment} (g Fe/kg dwt)	49.5
PNEC soil (g/kg dwt)	55
PNEC _{stp} (mg Fe/L)	500

8.2. Exposure controls

Please observe the usual precautionary measures for handling of chemicals.

The personal protective equipment must be compliant to the regulation UNI –EN in force

Eye protection:

Use close fitting safety goggles according to the standard EN 166, don't use eye lens

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber according to EN 374

Respiratory protection:

Use anti-powder mask with P2 (FFP2) filters according to the EN 143.

The powder exposition limit must be respected.

Thermal Hazards:

None Known

Environmental exposure controls:

None

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance and colour: Brown microgranules

Odour: N.A.

Odour threshold: N.A.

pH: 3,3

Melting point / freezing point: N.A.

Initial boiling point and boiling range: N.A.

Solid/gas flammability: N.A.

Upper/lower flammability or explosive limits: N.A.

Vapour density: N.A.

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Flash point:	N.A.
Evaporation rate:	N.A.
Vapour pressure:	N.A.
Relative density:	0.65 g/cm ³
Solubility in water:	400 g/l at 25°C
Lipid solubility:	N.A.
Partition coefficient (n-octanol/water):	N.A.
Auto-ignition temperature:	N.A.
Decomposition temperature:	N.A.
Viscosity:	N.A.
Explosive properties:	N.A.
Oxidizing properties:	N.A.

9.2. Other information

Miscibility:	N.A.
Fat Solubility:	N.A.
Conductivity:	N.A.
Substance Groups relevant properties	N.A.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Stable under normal conditions

The product can release gaseous ammonia if in contact with alkaline substances such as lime

10.2. Chemical stability

Stable under normal conditions of storage and use

10.3. Possibility of hazardous reactions

None

10.4. Conditions to avoid

Stable under normal conditions.

Avoid high temperatures

10.5. Incompatible materials

Bases.

10.6. Hazardous decomposition products

The product can release gaseous ammonia if in contact with alkaline substances such as lime

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Toxicological information of the mixture:

Brexil Fe

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 2000 mg/kg

Toxicological information of the main substances found in the mixture:

-Iron sulfate:

a) acute toxicity:

NOAEC in humans for acute respiratory effects would probably be higher than 0.02 mg Fe/m³ of respirable aerosols for a 2-hour exposure period.

b) skin corrosion/irritation:

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Ferrous sulfate heptahydrate 500 mg of solid applied to skin under semi-occlusion.	Rabbit	OECD TG 404 and GLP	Irritant	1	Clouzeau, 1994
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- c) serious eye damage/irritation:
Solutions of industrial grade ferric chloride and ferric sulfate have a pH of <1. They would therefore be expected to be corrosive, according to EU criteria (Directive 93/21/EEC).
- d) respiratory or skin sensitisation:
Not sensitizing to the respiratory system and skin
- e) germ cell mutagenicity:
based on available data, the classification criteria are not met
- f) carcinogenicity:
based on available data, the classification criteria are not met
- g) reproductive toxicity:
Not classified
NOAELs for reproductive and developmental effects ≥ 1000 mg/kg body weight/day
- h) STOT-single exposure:
based on available data, the classification criteria are not met
- i) STOT-repeated exposure
based on available data, the classification criteria are not met
- j) aspiration hazard:
based on available data, the classification criteria are not met

Information on likely routes of exposure

Inhalation: no data available

Skin/eye contact: Causes skin irritation; Causes serious eye irritation.

Ingestion:

Ingestion of Iron sulfate: Acute symptoms are characterized by vomiting, diarrhoea, mild lethargy, upper abdominal pain, pallor, and hyperglycemia with more severe clinical findings including cyanosis, stupor, acidosis, haematemesis, shock, and coma (Aisen, 1990).

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Based on available data, the product is non toxic for the environment

The release of large amounts may cause a decreasing of the pH value and can have negative effects on aquatic environments

12.2. Persistence and degradability:

No data available for the mixture;

The mixture contain Lignisulfonato ammonium that is a natural product biodegradable

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Not applicable for inorganic salts such as iron sulfate

12.3. Bioaccumulative potential

The product does not contain any bioaccumulative substances

12.4. Mobility in soil

The product is soluble and mobile in both terrestrial and aquatic compartments

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

None known

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product :Recover if possible. In so doing, comply with the local and national regulations currently in force.

Packaging: Dispose according to regulations.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name

N.A.

14.3. Transport hazard class(es)

N.A.

14.4. Packing Group

N.A.

14.5 Environmental hazards

IMDG-Marine pollutant: No

14.6. Special Precautions for User

N.A.

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

N.A.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Dir. 67/548/EEC (Classification, packaging and labelling of dangerous substances). Dir. 99/45/EEC (Classification, packaging and labelling of dangerous preparations). Dir. 98/24/EC (Risks related to chemical agents at work). Dir. 2000/39/EC (Occupational exposure limit values); Dir. 2006/8/CE. Regulation (CE) n. 1907/2006 (REACH), Regulation (CE) n. 1272/2008 (CLP), Regulation (CE) n. 790/2009 (1° ATP CLP), Regulation (EU) n. 453/2010 (Annex II).

Where applicable, refer to the following regulatory provisions :

Directive 82/501/EEC ('Activities linked to risks of serious accidents') and subsequent amendments.

Regulation (EC) nr 648/2004 (detergents).

1999/13/EC (VOC directive)

15.2. Chemical Safety Assessment

No

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SECTION 16: OTHER INFORMATION

Text of phrases referred to under heading 3:

R22 Harmful if swallowed.

R36/38 Irritating to eyes and skin.

H319 Causes serious eye irritation.

H315 Causes skin irritation.

H302 Harmful if swallowed.

Paragraphs modified from the previous revision: all paragraphs

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,
Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van
Nostrand Reinold

CCNL - Appendix 1

Insert further consulted bibliography

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

Section modified from the previous revision: all sections

N.A. no data available

ADR: European Agreement concerning the International Carriage of
Dangerous Goods by Road.

CAS: Chemical Abstracts Service (division of the American Chemical
Society).

CLP: Classification, Labeling, Packaging.

DNEL: Derived No Effect Level.

EINECS: European Inventory of Existing Commercial Chemical Substances.

GefStoffVO: Ordinance on Hazardous Substances, Germany.

GHS: Globally Harmonized System of Classification and Labeling of
Chemicals.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport
Association" (IATA).

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization"
(ICAO).

IMDG: International Maritime Code for Dangerous Goods.

INCI: International Nomenclature of Cosmetic Ingredients.

KSt: Explosion coefficient.

LC50: Lethal concentration, for 50 percent of test population.

LD50: Lethal dose, for 50 percent of test population.

LTE: Long-term exposure.

PNEC: Predicted No Effect Concentration.

RID: Regulation Concerning the International Transport of Dangerous Goods

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by Rail.

STE: Short-term exposure.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day.
(ACGIH Standard).
WGK: German Water Hazard Class.