

Safety data sheet

Page: 1/8

BASF Safety data sheet
Date / Revised: 15.03.2013
Product: **Librel® Fe-LO**

Version: 1.1

(30483367/SDS_GEN_AU/EN)

Date of print 01.05.2013

1. Substance/preparation and company identification

Librel® Fe-LO

Use: Micronutrient

Manufacturer/supplier:

BASF Australia Limited (ABN 62 008 437 867)
Level 12, 28 Freshwater Place Southbank
Victoria 3006, AUSTRALIA
Telephone: +61 3 8855-6600
Telefax number: +61 3 8855-6511

Emergency information:

BASF Emergency Advice Number: 1800 803 440 (24h) [within Australia]
BASF Emergency Advice Number: + 61 3 8855 6666 [outside Australia]

2. Hazard identification

The product does not require a hazard warning label in accordance with EC Directives.

NON-HAZARDOUS SUBSTANCE, NON-DANGEROUS GOODS

3. Composition/information on ingredients

Chemical nature

Ferrate(1-), [[N,N'-1,2-ethanediy]bis[N-[(carboxy- .kappa.O)methyl]glycinato-.kappa.N,.kappa.O]](4-)]-, sodium, (OC-6-21)-

BASF Safety data sheet
Date / Revised: 15.03.2013
Product: **Librel® Fe-LO**

Version: 1.1

(30483367/SDS_GEN_AU/EN)

Date of print 01.05.2013

CAS Number: 15708-41-5
EC-Number: 239-802-2

4. First-Aid Measures

General advice:

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:

Wash thoroughly with soap and water.

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion:

Rinse mouth and then drink plenty of water.

Note to physician:

Symptoms: No significant symptoms are expected due to the non-classification of the product.

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:

dry powder, foam, carbon dioxide, water spray

Unsuitable extinguishing media for safety reasons:

water jet

Specific hazards:

carbon oxides, nitrogen oxides

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. Accidental Release Measures

Personal precautions:

Avoid dust formation. Use personal protective clothing. Information regarding personal protective measures see, section 8.

BASF Safety data sheet
Date / Revised: 15.03.2013
Product: **Librel® Fe-LO**

Version: 1.1

(30483367/SDS_GEN_AU/EN)

Date of print 01.05.2013

Environmental precautions:
Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

Methods for cleaning up or taking up:
For small amounts: Pick up with suitable appliance and dispose of.
For large amounts: Contain with dust binding material and dispose of.
Avoid raising dust.

7. Handling and Storage

Handling

Protection against fire and explosion:
Avoid dust formation. Take precautionary measures against static discharges.

Dust explosion class: none.

Storage

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.

8. Exposure controls and personal protection

Components with occupational exposure limits

no exposure standard allocated

Personal protective equipment

Respiratory protection:

Suitable respiratory protection for lower concentrations or short-term effect: Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2)

Hand protection:

Chemical resistant protective gloves

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374):

e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinylchloride (0.7 mm) and other
Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:

Safety glasses with side-shields.

BASF Safety data sheet
Date / Revised: 15.03.2013
Product: **Librel® Fe-LO**

Version: 1.1

(30483367/SDS_GEN_AU/EN)

Date of print 01.05.2013

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended.

9. Physical and Chemical Properties

Form:	crystalline	
Colour:	yellow to brown	
Odour:	odourless	
pH value:	4.5 - 5.5 (20 g/l)	
decomposition point:	> 211 °C	(OECD Guideline 102)
Boiling point:	not applicable	
Flash point:	not applicable	
Flammability:	not highly flammable	
Lower explosion limit:	not applicable	
Upper explosion limit:	not applicable	
Ignition temperature:	not applicable	
Self ignition:	not self-igniting	Test type: Spontaneous self-ignition at room-temperature.
Self heating ability:	It is not a substance capable of spontaneous heating.	
Explosion hazard:	not explosive	(Directive 92/69/EEC, A.14)
Fire promoting properties:	not fire-propagating	(Directive 92/69/EEC, A.17)
Vapour pressure:	< 0.000001 hPa (25 °C)	
Density:	1.78 g/cm ³ (20 °C)	(OECD Guideline 109)
Relative density:	1.7808 (20 °C)	(OECD Guideline 109)
Bulk density:	900 kg/m ³	
Solubility in water:	72 g/l (25 °C)	

BASF Safety data sheet
Date / Revised: 15.03.2013
Product: **Librel® Fe-LO**

Version: 1.1

(30483367/SDS_GEN_AU/EN)

Date of print 01.05.2013

Partitioning coefficient n-octanol/water (log Pow):	-8.84	(calculated)
	The data refers to the undissociated form of the substance.	
Surface tension:	73.7 mN/m (22 °C; 1.02 g/l)	(OECD-Guideline 115, OECD harmonized ring method)
Viscosity, dynamic:	not applicable	

10. Stability and Reactivity

Conditions to avoid:
Avoid dust formation. Avoid extreme temperatures.

Substances to avoid:
strong bases, oxidizing agents

Corrosion to metals: No corrosive effect on metal.

Hazardous decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information

Acute toxicity

Assessment of acute toxicity:
Virtually nontoxic after a single ingestion.

Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation.

LD50 rat (oral): approx. 10,000 mg/kg
Literature data.

LC50 rat (by inhalation): > 2.75 mg/l 4 h (OECD Guideline 403)
An aerosol was tested.

LD50 rat (dermal): > 2,000 mg/kg (OECD Guideline 402)

Irritation

Assessment of irritating effects:
Not irritating to the skin. Not irritating to the eyes.

Primary skin irritation rabbit: non-irritant (OECD Guideline 404)

Primary irritations of the mucous membrane rabbit: non-irritant (OECD Guideline 405)

Sensitization

Assessment of sensitization:
No sensitizing effect.

rat: Non-sensitizing. (OECD Guideline 429)

Repeated dose toxicity

Assessment of repeated dose toxicity:
No adverse effects were observed after repeated exposure in animal studies.

Genetic toxicity

Assessment of mutagenicity:
Most of the results from the available studies show no evidence of a mutagenic effect. At high concentrations the chelating properties interfere with the essential cation concentrations in the culture medium and within the cells.

Carcinogenicity

Assessment of carcinogenicity:
No data available.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish:
LC50 (96 h) > 100 mg/l, *Oncorhynchus mykiss* (OECD 203; ISO 7346; 84/449/EEC, C.1, static)
Limit concentration test only (LIMIT test). No mortality was observed. Nominal values (confirmed by concentration control analytics)

Aquatic invertebrates:
EC50 (48 h) > 100 mg/l, *Daphnia magna*

Aquatic plants:
EC50 (72 h) > 60.6 mg/l (growth rate), *Pseudokirchneriella subcapitata* (OECD Guideline 201, static)
Inhibition of algal growth is due to the complexing properties of the substance and is not ascribed to an intrinsic toxicity.

EC10 (72 h) > 100 mg/l (growth rate), *Desmodesmus subspicatus* (Guideline 92/69/EEC, C.3, static)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. Nominal concentration.

Microorganisms/Effect on activated sludge:
No observed effect concentration (3 h) 640 mg/l, (OECD Guideline 209, static)

Chronic toxicity to fish:

(30483367/SDS_GEN_AU/EN)

Date of print 01.05.2013

No observed effect concentration (35 d) \geq 25.7 mg/l, Brachydanio rerio (OECD Guideline 210, Flow through.)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Chronic toxicity to aquatic invertebrates:

No observed effect concentration (21 d), 31 mg/l, Daphnia magna (semistatic)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. Nominal values (confirmed by concentration control analytics)

Mobility

Assessment transport between environmental compartments:

Adsorption to solid soil phase is not expected.

Persistence and degradability

Assessment biodegradation and elimination (H₂O):

Not readily biodegradable (by OECD criteria).

Elimination information:

0 - 10 % BOD of the ThOD (30 d) (OECD 301D; EEC 92/69, C.4-E) (aerobic, domestic sewage)

Assessment of stability in water:

According to structural properties, hydrolysis is not expected/probable.

Bioaccumulation potential

Assessment bioaccumulation potential:

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

13. Disposal Considerations

Must be disposed of or incinerated in accordance with local regulations.

Contaminated packaging:

Uncontaminated packaging can be re-used.

Packs that cannot be cleaned should be disposed of in the same manner as the contents.

14. Transport Information

Domestic transport:

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

BASF Safety data sheet
Date / Revised: 15.03.2013
Product: **Librel® Fe-LO**

Version: 1.1

(30483367/SDS_GEN_AU/EN)

Date of print 01.05.2013

Air transport
IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Poisons Schedule: Not scheduled

Regulations of the European union (Labelling)

EC-Number: 239-802-2

as in Annex VI of Directive 67/548/EEC:

The product does not require a hazard warning label in accordance with EC Directives.

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

Registration status:

AICS, AU released / listed

16. Other Information

Due to the merger of CIBA and BASF Group all Material Safety Data Sheets have been reassessed on the basis of consolidated information. This may have resulted in changes of the Material Safety Data Sheets. In case you have questions concerning such changes please contact us at the address mentioned in Section I.

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.