

Safety data sheet

Page: 1/9

BASF Safety data sheet
Date / Revised: 03.05.2013
Product: **Librel® Mn**

Version: 2.0

(30482179/SDS_GEN_AU/EN)

Date of print 22.05.2013

1. Substance/preparation and company identification

Librel® Mn

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

No particular hazards known.

NON-HAZARDOUS SUBSTANCE, NON-DANGEROUS GOODS

3. Composition/information on ingredients

Chemical nature

Manganate(2-), ((N,N'-1,2-ethanediylbis(N-(carboxy-.kappa.O)methyl)glycinato-.kappa.N,.kappa.O))(4-)-, disodium, (OC-6-21)-
CAS Number: 15375-84-5

4. First-Aid Measures

General advice:

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air.

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: Symptomatic treatment (decontamination, vital functions).

5. Fire-Fighting Measures

Suitable extinguishing media:

dry powder, foam

Unsuitable extinguishing media for safety reasons:

carbon dioxide

Specific hazards:

harmful vapours

Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

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:

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

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.

Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Handling

Protection against fire and explosion:

Avoid dust formation. Take precautionary measures against static discharges.

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 higher concentrations or long-term effect: Particle filter with low efficiency for solid particles (e.g. EN 143 or 149, Type P1 or FFP1)

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.

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:	free flowing fine granules	
Colour:	pale pink	
Odour:	mild	
pH value:	approx. 7	
pKA:	13.89 (25 °C)	(OECD Guideline 112)
decomposition point:	252 °C	(OECD Guideline 102)
Boiling point:	The substance / product decomposes therefore not determined.	
Flash point:	not applicable	
Flammability:	not highly flammable	(Directive 84/449/EEC, A.10)
Lower explosion limit:	For solids not relevant for classification and labelling.	
Upper explosion limit:	For solids not relevant for classification and labelling.	
Ignition temperature:	not applicable	
Self ignition:	Based on its structural properties the product is not classified as self-igniting.	Test type: Spontaneous self-ignition at room-temperature.
	Temperature: 264 °C Pressure: 1,013 hPa	Test type: Self-ignition at high temperatures. (Method: Directive 92/69/EEC, A.16)
Self heating ability:	It is not a substance capable of spontaneous heating.	
Minimum ignition energy:	> 500 J	
Explosion hazard:	not explosive	(Directive 92/69/EEC, A.14)
Fire promoting properties:	not fire-propagating	(Directive 92/69/EEC, A.17, See user defined text.)
Vapour pressure:	0.001 hPa (120.8 °C)	(Directive 92/69/EEC, A.4)
Density:	1.4032 g/cm ³ (20 °C)	(OECD Guideline 109)

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Bulk density:	approx. 800 kg/m ³		
Solubility in water:	412 g/l (25 °C)		
Partitioning coefficient n-octanol/water (log Pow):	-9.10	(calculated)	
	(25 °C)		
Adsorption/water - soil:	log KOC: -1.92	(calculated)	
Surface tension:	72.7 mN/m	(OECD-Guideline 115, Ring method)	
	(22 °C; 1.04 g/l)		
Viscosity, dynamic:	Study scientifically not justified.		

10. Stability and Reactivity

Conditions to avoid:
Avoid humidity.

Substances to avoid:
strong bases, oxidizing agents

Hazardous reactions:
The product is not a dust explosion risk as supplied; however the build-up of fine dust can lead to a risk of dust explosions.

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. In animal studies the substance is virtually nontoxic after short-term inhalation.

LD₅₀ rat (oral): > 2,000 mg/kg (OECD Guideline 423)

LC₅₀ rat (by inhalation): > 5.16 mg/l 4 h (other)
An aerosol was tested.

(dermal): Study not necessary due to exposure considerations.

Irritation

Assessment of irritating effects:

Not irritating to the skin. Not irritating to the eyes.

Primary skin irritation In vitro assay: non-irritant (OECD Guideline 439)

Primary irritations of the mucous membrane In vitro assay: non-irritant (OECD Guideline 437)

Sensitization

Assessment of sensitization:

Skin sensitizing effects were not observed in animal studies. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

mouse: Non-sensitizing. (OECD Guideline 429)

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

Repeated dose toxicity

Assessment of repeated dose toxicity:

The substance may cause damage to the kidney after repeated ingestion of high doses, as shown in animal studies.

Genetic toxicity

Assessment of mutagenicity:

The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture.

Carcinogenicity

Assessment of carcinogenicity:

No data available concerning carcinogenic effects.

Reproductive toxicity

Assessment of reproduction toxicity:

Repeated oral uptake of the substance did not cause damage to the reproductive organs. On the basis of animal study findings, an effect on fertility cannot be excluded when given in high doses. The results were determined in a Screening test (OECD 421/422).

Developmental toxicity

Assessment of teratogenicity:

The potential to cause toxicity to development cannot be excluded when given in high doses. The results were determined in a Screening test (OECD 421/422).

Other relevant toxicity information

The product has not been tested. The statements on toxicology have been derived from products of a similar structure and composition.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:

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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) > 1,000 mg/l, *Brachydanio rerio* (OECD 203; ISO 7346; 84/449/EEC, C.1, static)
Limit concentration test only (LIMIT test). Nominal concentration.

Aquatic invertebrates:

Study does not need to be conducted.

Aquatic plants:

EC50 (72 h) 649.3 mg/l (growth rate), *Pseudokirchneriella subcapitata* (OECD Guideline 201, static)
Nominal concentration.

Microorganisms/Effect on activated sludge:

No observed effect concentration (3 h) 640 mg/l, (OECD Guideline 209, static)
Nominal concentration. The value meets the highest applied test concentration.

Chronic toxicity to fish:

No observed effect concentration (35 d) \geq 25.7 mg/l, *Brachydanio rerio* (OECD Guideline 210, Flow through.)
The statement of the toxic effect relates to the analytically determined concentration. 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:

(21 d), 156 mg/l, *Daphnia magna* (OECD Guideline 211, semistatic)
Nominal concentration.

Assessment of terrestrial toxicity:

Study scientifically not justified.

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). Inherently biodegradable.

Elimination information:

90 - 100 % DOC reduction (28 d) (OECD Guideline 302 A) (aerobic, activated sludge, domestic, adapted)

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

90 % DOC reduction (60 d) (OECD 301 A (new version)) (aerobic, other)

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

Assessment of stability in water:

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

Information on Stability in Water (Hydrolysis):

| Study scientifically not justified.

Bioaccumulation potential

Assessment bioaccumulation potential:

| Accumulation in organisms is not to be expected.

Bioaccumulation potential:

| Bioconcentration factor: approx. 1.8 (28 d), *Lepomis macrochirus* (other)

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

Additional information

Other ecotoxicological advice:

Do not discharge product into the environment without control.

The product has not been tested. The statements on ecotoxicology have been derived from products of a similar structure and composition.

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

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

| List of Designated Hazardous Substances (Australia):

Poisons Schedule: Not scheduled

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

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.