We create chemistry

Safety data sheet

1. Substance/preparation and manufacturer/supplier identification

Product name:
Librel® Zn

Use: Micronutrient

Manufacturer/supplier:
BASF New Zealand Ltd.
5E City Works Depot
77 Cook Street
Auckland Central, Auckland 1010
NEW ZEALAND
Telephone: +64 9 255-4300
Telefax number: +64 9 255-4307

Emergency information:
National Poisons Centre: 0800 764 766
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)
BASF Emergency Advice Number: +61 3 8855 6666 (If calling from outside New Zealand)

2. Hazard identification

Classification of the substance and mixture:
No need for classification according to GHS criteria for this product.

Label elements and precautionary statement:

The product does not require a hazard warning label in accordance with GHS criteria.

Other hazards which do not result in classification:
No specific dangers known, if the regulations/notes for storage and handling are considered.

3. Composition/information on ingredients

Chemical nature

Substance nature: Substance

Zincate(2-), [[N,N'-1,2-ethanediylbis[N-[(carboxy- .kappa.O)methyl]glycinato-.kappa.N,.kappa.O]](4-)]-, disodium, (OC-6-21)-
CAS Number: 14025-21-9

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 200-300 ml of water.

Note to physician:
Symptoms: (Further) symptoms and / or effects are not known so far
Treatment: Symptomatic treatment (decontamination, vital functions).

5. Fire-Fighting Measures

Suitable extinguishing media:
dry powder, foam

Unsuitable extinguishing media for safety reasons:
carbon dioxide

Additional information:
Avoid whirling up the material/product because of the danger of dust explosion.

Specific hazards:
harmful vapours, nitrogen oxides, carbon oxides
Generation 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. Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.

6. Accidental Release Measures

Personal precautions:
For non-emergency personnel:Avoid dust formation.Use personal protective clothing.Information regarding personal protective measures, see section 8.

For emergency responders:Take appropriate protective measures.

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: Contain with dust binding material and dispose of.
For large amounts: Pick up with suitable appliance and dispose of.
Avoid raising dust. Dispose of absorbed material in accordance with regulations.

Additional information: Avoid the formation and build-up of dust - danger of dust explosion. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition.

7. Handling and Storage

Handling

Provide exhaust ventilation.

No eating, drinking, smoking or tobacco use at the place of work. Wash hands before breaks and at end of work. Remove contaminated clothing and protective equipment before entering eating areas.

Protection against fire and explosion:
Avoid dust formation. The product is capable of dust explosion. Take precautionary measures against static discharges. Avoid all sources of ignition: heat, sparks, open flame. Avoid deposition of dust.

Dust explosion class: none.

Storage

Suitable materials for containers: Polypropylene (PP), High density polyethylene (HDPE), Low density polyethylene (LDPE), Paper/Fibreboard
Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.

Storage stability:

Storage temperature: 5 - 40 °C

Protect from temperatures below: -20 °C
Characteristics of the product are reversibly changed when falling below the limit temperature.
Protect from temperatures above: 70 °C
Properties of the product change reversibly on exceeding the limit temperature.

8. Exposure controls and personal protection

Components with occupational exposure limits

No occupational exposure limits known.

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 ISO 374-1):
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:
Wearing of closed work clothing is recommended. No eating, drinking, smoking or tobacco use at the place of work. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Form:	free flowing fine granules	
Colour:	white	
Odour:	product specific	
pH value:	5 - 9 (2 %(m), 25 °C)	(DIN 19268)

Melting point:		
	not determined	
Boiling point:		
	not applicable	
Flash point:		
	not applicable	
Evaporation rate:		
	The product is a non-volatile solid.	
Flammability (solid/gas):	not flammable	
Lower explosion limit:		
	For solids not relevant for classification and labelling.	
Upper explosion limit:		
	For solids not relevant for classification and labelling.	
Ignition temperature:	> 530 °C	(other)
Thermal decomposition:	> 140 °C	(DTA)
Self ignition:	not self-igniting	
Self heating ability:	It is not a substance capable of spontaneous heating according to UN transport regulations class 4.2.	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Vapour pressure:	< 0.000001 hPa (25 °C)	(internal method)
Density:		
	Study does not need to be conducted.	
Relative density:		
	No data available.	
Bulk density:	650 - 900 kg/m3	(other)
Relative vapour density (air):		
	The product is a non-volatile solid.	
Solubility in water:		
	440 g/l (20 °C)	
Hygroscopy:	Non-hygroscopic	
Partitioning coefficient n-octanol/water (log Pow):	-8.841 (25 °C) The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.	(calculated)
Viscosity, dynamic:		
	not applicable	

Viscosity, kinematic:
not applicable, the product is a solid

Other Information:
If necessary, information on other physical and chemical parameters is indicated in this section.

Particle characteristics

Particle size distribution:		(measured)
	particles 123 µm	10 %
	particles 209 µm	50 %
	particles 333 µm	90 %

10. Stability and Reactivity

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

Thermal decomposition: > 140 °C (DTA)

Substances to avoid:
strong oxidizing agents, strong bases, strong acids

Hazardous reactions:
The product may contain explosive fine dust or such dust may be produced by abrasion during transport or product transfer.

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

Chemical stability:
The product is stable if stored and handled as prescribed/indicated.

Reactivity:
No hazardous reactions if stored and handled as prescribed/indicated.

11. Toxicological Information

Routes of exposure

Acute oral toxicity

Experimental/calculated data:
LD50rat (oral): > 2,000 mg/kg (OECD Guideline 423)

Acute inhalation toxicity

LC50 rat (by inhalation): > 5.16 mg/l 4 h (OECD Guideline 436)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. An aerosol was tested.

Acute dermal toxicity

LD50 rat (dermal):
not determined

Assessment of acute toxicity

In animal studies the substance is virtually nontoxic after a single ingestion. In animal studies the substance is virtually nontoxic after short-term inhalation. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Symptoms

(Further) symptoms and / or effects are not known so far

Irritation

Assessment of irritating effects:
An in vitro test did not indicate the potential to cause skin corrosion. An in vitro test did not indicate the potential to cause serious damage to the eyes. May cause slight irritation to the eyes.

Experimental/calculated data:
Skin corrosion/irritation In vitro assay: non-irritant (OECD Guideline 439)

Serious eye damage/irritation In vitro assay: non-irritant (BCOP)

Respiratory/Skin 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.

Germ cell mutagenicity

Assessment of mutagenicity:
Results from a number of mutagenicity studies with microorganisms, mammalian cell culture and mammals are available. Taking into account all of the information, there is no indication that the substance is mutagenic. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Carcinogenicity

Assessment of carcinogenicity:
In long-term studies in rats in which the substance was given by feed, a carcinogenic effect was not observed. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Reproductive toxicity

Assessment of reproduction toxicity:
The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Developmental toxicity

Assessment of teratogenicity:
After the uptake of small doses toxicity to development will not be expected in humans. Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Specific target organ toxicity (single exposure)

Based on available data, the classification criteria are not met.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
No adverse effects were observed after repeated oral exposure in animal studies. No adverse effects were observed after repeated inhalative exposure in animal studies. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aspiration hazard

No aspiration hazard expected.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
There is a high probability that the product is not acutely harmful to aquatic organisms. Based on long-term (chronic) toxicity study data, the product is very likely not 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, Lepomis macrochirus (Fish test acute, static)
The details of the toxic effect relate to the nominal concentration.

Aquatic invertebrates:
EC50 (48 h) > 100 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)
Analogous: Assessment derived from products with similar chemical character.

Aquatic plants:
EC50 (72 h) > 100 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201, static) acute Effect The details of the toxic effect relate to the nominal concentration.
Analogous: Assessment derived from products with similar chemical character.

EC10 (72 h) > 10 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201, static) long-term effect The details of the toxic effect relate to the nominal concentration.
Analogous: Assessment derived from products with similar chemical character.

Microorganisms/Effect on activated sludge:
EC50 (0.5 h), bacteria
not determined

Chronic toxicity to fish:
No observed effect concentration (35 d) > 30 mg/l, Brachydanio rerio (OECD Guideline 210, Flow through.)
The statement of the toxic effect relates to the analytically determined concentration.

Analogous: Assessment derived from products with similar chemical character.

Chronic toxicity to aquatic invertebrates:
No observed effect concentration (21 d), > 30 mg/l, Daphnia magna (OECD Guideline 211, semistatic)
The details of the toxic effect relate to the nominal concentration.
Analogous: Assessment derived from products with similar chemical character.

Assessment of terrestrial toxicity:
No data available concerning terrestrial toxicity.

Mobility

Assessment transport between environmental compartments:
The substance will not evaporate into the atmosphere from the water surface.
Adsorption to solid soil phase is not expected.

Persistence and degradability

Assessment biodegradation and elimination (H2O):
Not readily biodegradable (by OECD criteria). Poorly biodegradable.

Assessment of stability in water:
According to structural properties, hydrolysis is not expected/probable.

Bioaccumulation potential

Assessment bioaccumulation potential:
Does not accumulate in organisms.

Bioaccumulation potential:
Bioconcentration factor: approx. 1.8 (28 d), Lepomis macrochirus (other)
Analogous: Assessment derived from products with similar chemical character.

Additional information

Add. remarks environm. fate & pathway:
Treatment in biological waste water treatment plants has to be performed according to local and administrative regulations.

Other ecotoxicological advice:
Do not discharge product into the environment without control.

13. Disposal Considerations

Must be disposed of or incinerated in accordance with local regulations.
No disposal via sewage or waste water systems.

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
UN number or ID number	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

Sea transport
IMDG

	Not classified as a dangerous good under transport regulations
UN number or ID number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
	Marine pollutant: no
Special precautions for user	None known

Air transport
IATA/ICAO

	Not classified as a dangerous good under transport regulations
UN number or ID number	Not applicable
Proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

Maritime transport in bulk according to IMO instruments

Maritime transport in bulk is not intended.

15. Regulatory Information

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.

A certified handler is not required for the handling of this substance.

Tracking requirements do not apply to this substance.

16. Other Information

This product is of industrial quality and unless otherwise specified or agreed intended exclusively for industrial use.This includes the mentioned and recommended usage.Any other intended applications should be discussed with the manufacturer.In particular this concerns the application for products that are the object of special standards and regulations.

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. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.