

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

1.1. Product identifier

| | |
|-------------------------------|--|
| Product form | : Mixture |
| Product name | : Hyponik Oligo |
| Product group | : Trade product |
| Other means of identification | : Mixture of trace elements (boron, copper, iron, manganese, molybdenum and zinc) according to regulation (EC) No 2019/1009. |

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

1.2.1. Relevant identified uses

| | |
|------------------------------|---------------|
| Use of the substance/mixture | : Fertilisers |
|------------------------------|---------------|

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

BMS Micro-Nutrients NV
Rijksweg 32
be- 2880 Bornem
Belgium
T +32/3 899 10 10 - F +32/3 899 40 44
info@chelal.com - www.chelal.com

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

| | |
|----------------|--|
| EUH-statements | : EUH210 - Safety data sheet available on request. |
|----------------|--|

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

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according to Regulation (EU) 2015/830

3.2. Mixtures

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|--|---|-------|---|
| Reaction mass of ZnEDTA, ZnDTPA and ZnHEEDTA | EC Index-No.: 275-554-1 REACH-no: 01-2120773690-49 | 4 – 8 | Aquatic Chronic 3, H412 |

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|---------------------------------------|--|
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. |
| First-aid measures after skin contact | : Wash skin with plenty of water. |
| First-aid measures after eye contact | : Rinse eyes with water as a precaution. |
| First-aid measures after ingestion | : Call a poison center or a doctor if you feel unwell. |

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

No additional information available

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|------------------------------|--|
| Suitable extinguishing media | : Water spray. Dry powder. Foam. Carbon dioxide. |
|------------------------------|--|

5.2. Special hazards arising from the substance or mixture

| | |
|--|--------------------------------|
| Hazardous decomposition products in case of fire | : Toxic fumes may be released. |
|--|--------------------------------|

5.3. Advice for firefighters

| | |
|--------------------------------|--|
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |
|--------------------------------|--|

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

| | |
|----------------------|----------------------------|
| Emergency procedures | : Ventilate spillage area. |
|----------------------|----------------------------|

6.1.2. For emergency responders

| | |
|----------------------|---|
| Protective equipment | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
|----------------------|---|

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

| | |
|-------------------------|---|
| Methods for cleaning up | : Take up liquid spill into absorbent material. |
| Other information | : Dispose of materials or solid residues at an authorized site. |

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according to Regulation (EU) 2015/830

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

| | |
|-------------------------------|---|
| Precautions for safe handling | : Ensure good ventilation of the work station. Wear personal protective equipment. |
| Handling temperature | : 5 – 30 °C |
| Hygiene measures | : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. |

7.2. Conditions for safe storage, including any incompatibilities

| | |
|---------------------|--|
| Storage conditions | : Store in a well-ventilated place. Keep cool. |
| Storage temperature | : 5 – 30 °C |

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

| Hyponik Oligo | |
|--|------------------------------------|
| Belgium - Occupational Exposure Limits | |
| Iron, soluble salts (long term) | 1 mg/m ³ |
| manganese and inorganic compounds (long term) | 0,2 mg/m ³ |
| Molybdenum (soluble compounds) (long term) | 0,5 mg/m ³ |
| boron (inhalable) | 2; 6 mg/m ³ |
| France - Occupational Exposure Limits | |
| Molybdenum (soluble compounds) (long term; short term) | 5; 10 mg/m ³ |
| Germany - Occupational Exposure Limits (Generic OEL data) | |
| manganese and inorganic compounds (long term respirable aerosol; long term inhalable aerosol) | 0,02; 0,2 mg/m ³ |
| zinc and inorganic compounds (long term inhalable & respirable fraction; short term inhalable & respirable fraction) | 2 & 0,1; 4 & 0,4 mg/m ³ |
| Copper, inorganic compounds (long term respirable fraction; short term respirable fraction) | 0,01; 0,02 mg/m ³ |
| boron (inhalable) | 0,5; 1 mg/m ³ |
| Latvia - Occupational Exposure Limits | |
| Copper, inorganic compounds (long term; short term) | 0,5; 1 mg/m ³ |
| Netherlands - Occupational Exposure Limits | |
| Copper, inorganic compounds (long term) | 0,1 mg/m ³ |
| Poland - Occupational Exposure Limits | |
| Copper, inorganic compounds (long term) | 0,2 mg/m ³ |

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Spain - Occupational Exposure Limits

| | |
|--|------------------------|
| Iron, soluble salts (long term) | 1 mg/m ³ |
| manganese and inorganic compounds (long term) | 0,2 mg/m ³ |
| Molybdenum (soluble compounds) (long term respirable fraction) | 0,5 mg/m ³ |
| boron (inhalable) | 2; 6 mg/m ³ |

Reaction mass of ZnEDTA, ZnDTPA and ZnHEEDTA

Germany - Occupational Exposure Limits (Generic OEL data)

| | |
|--|------------------------------------|
| zinc and inorganic compounds (long term inhalable & respirable fraction; short term inhalable & respirable fraction) | 2 & 0,1; 4 & 0,4 mg/m ³ |
|--|------------------------------------|

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available

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according to Regulation (EU) 2015/830

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|-------------------------|
| Physical state | : Liquid |
| Colour | : brown. |
| Odour | : odourless. |
| Odour threshold | : No data available |
| pH | : 7 – 7.5 (1% solution) |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : Not applicable |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : Not applicable |
| Vapour pressure | : No data available |
| Relative vapour density at 20°C | : No data available |
| Relative density | : No data available |
| Density | : ≈ 1.28 kg/l |
| Solubility | : complete. |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits | : |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

| | |
|-----------------------------|------------------|
| Acute toxicity (oral) | : Not classified |
| Acute toxicity (dermal) | : Not classified |
| Acute toxicity (inhalation) | : Not classified |

Reaction mass of ZnEDTA, ZnDTPA and ZnHEEDTA

| | |
|-----------------------------------|---|
| LD50 oral rat | > 5000 mg/kg bodyweight (OECD 423) result obtained on a similar substance: reaction mass of MnEDTA, MnDTPA and MnHEEDTA |
| LC50 Inhalation - Rat (Dust/Mist) | > 5 mg/l/4h (OECD 436) |

| | |
|-----------------------------------|---|
| Skin corrosion/irritation | : Not classified pH: 7 – 7.5 (1% solution) |
| Serious eye damage/irritation | : Not classified pH: 7 – 7.5 (1% solution) |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |

Reaction mass of ZnEDTA, ZnDTPA and ZnHEEDTA

| | |
|-----------------------------|--|
| NOAEL (animal/female, F0/P) | > 1000 mg/kg bodyweight Wistar rat; 50-60 days; OECD 422, result obtained on a similar substance: reaction mass of MnEDTA, MnDTPA and MnHEEDTA |
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Not classified |

Reaction mass of ZnEDTA, ZnDTPA and ZnHEEDTA

| | |
|--|--|
| NOAEL (subacute, oral, animal/male, 28 days) | > 1000 mg/kg bodyweight Wistar rat; OECD 422, result obtained on a similar substance: reaction mass of MnEDTA, MnDTPA and MnHEEDTA |
| NOAEL (subacute, oral, animal/female, 28 days) | > 1000 mg/kg bodyweight Wistar rat; 50-60 days; OECD 422, result obtained on a similar substance: reaction mass of MnEDTA, MnDTPA and MnHEEDTA |
| Aspiration hazard | : Not classified |

SECTION 12: Ecological information

12.1. Toxicity

| | |
|---|---|
| Ecology - general | : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. |
| Hazardous to the aquatic environment, short-term (acute) | : Not classified |
| Hazardous to the aquatic environment, long-term (chronic) | : Not classified |

Reaction mass of ZnEDTA, ZnDTPA and ZnHEEDTA

| | |
|----------------------|------------------------------------|
| LC50 - Fish [1] | > 1050 mg/l Danio rerio (OECD 203) |
| EC50 - Crustacea [1] | > 1118 mg/l (24h & 48h OECD 202) |
| ErC50 algae | 20.4 mg/l 72h (OECD 201) |

12.2. Persistence and degradability

Reaction mass of ZnEDTA, ZnDTPA and ZnHEEDTA

| | |
|-------------------------------|---------------------------|
| Persistence and degradability | Inherently biodegradable. |
|-------------------------------|---------------------------|

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12.3. Bioaccumulative potential

Reaction mass of ZnEDTA, ZnDTPA and ZnHEEDTA

| | |
|---|--|
| Partition coefficient n-octanol/water (Log Kow) | < -10 |
| Bioaccumulative potential | A toxicokinetic assessment was performed based on the available data of the substance. Based on the physical/chemical properties of the reaction mixture of ZnEDTA, ZnDTPA and ZnHEEDTA, absorption factors for this substance are derived to be 10% (oral), 10% (inhalation) and 10% (dermal) for risk assessment purposes. No significant bioaccumulation potential is expected. |

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1 UN number

| | |
|---------------|------------------|
| UN-No. (ADR) | : Not applicable |
| UN-No. (IMDG) | : Not applicable |
| UN-No. (IATA) | : Not applicable |
| UN-No. (ADN) | : Not applicable |
| UN-No. (RID) | : Not applicable |

14.2. UN proper shipping name

| | |
|-----------------------------|------------------|
| Proper Shipping Name (ADR) | : Not applicable |
| Proper Shipping Name (IMDG) | : Not applicable |
| Proper Shipping Name (IATA) | : Not applicable |
| Proper Shipping Name (ADN) | : Not applicable |
| Proper Shipping Name (RID) | : Not applicable |

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

ADN

Transport hazard class(es) (ADN) : Not applicable

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according to Regulation (EU) 2015/830

RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable
Packing group (ADN) : Not applicable
Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

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Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Germany

Water hazard class (WGK) : WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1).
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed
SZW-lijst van mutagene stoffen : None of the components are listed
SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed
SZW-lijst van reprotoxische stoffen –
Vruchtbaarheid : None of the components are listed
SZW-lijst van reprotoxische stoffen – Ontwikkeling : None of the components are listed

Denmark

Danish National Regulations : Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

For the following substances of this mixture a chemical safety assessment has been carried out:

Reaction mass of ZnEDTA, ZnDTPA and ZnHEEDTA

SECTION 16: Other information

Full text of H- and EUH-statements:

| | |
|-------------------|---|
| Aquatic Chronic 3 | Hazardous to the aquatic environment – Chronic Hazard, Category 3 |
| EUH210 | Safety data sheet available on request. |
| H412 | Harmful to aquatic life with long lasting effects. |

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.