

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

Trade name: Oligo Zinc IDHA 10% ECHA No.: 01-2119446084-43-0000

CAS No: 666748-59-0 EC No.: 931-053-6

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

Use of the substance/mixture: fertilizer.

1.3. Details of the supplier of the safety data sheet

Van Iperen International BV

Smidsweg 24

3273 LK Westmaas - Nederland

T +31 (0) 186 578 888 - F +31 (0) 186 573 452 info@iperen.com - www.vaniperen.com

1.4. Emergency telephone number

| Country | Official advisory body | Address | Emergency number | | |
|-----------------------|--|--|------------------|--|--|
| Ireland (Republic of) | National Poisons Information Centre Beaumont Hospital | Beaumont Hospital Beaumont Road 9 Dublin | : +353 1 8379964 | | |
| United Kingdom | Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust | Avonley Road SE14 5ER London | 0870 243 2241 | | |

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

No hazardous product as specified in Directive 67/548/EEC and EU-GHS/CLP No 1272/2008.

2.2. Label elements

Labelling according to EU-GHS/CLP No 1272/2008

| P234 | Keep only in original container. | |
|----------------|--|--|
| P280 | Wear protective gloves/ protective clothing/eye protection/face protection. | |
| P390 | Absorb spillage to prevent material damage. | |
| P302+P352 | IF ON SKIN: Wash with plenty of soap and water. | |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. | |

2.3. Other hazards

The substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII of the REACH Regulation. (see section 12).

SECTION 3: Composition/information on ingredients

3.1. Substances

Trade name: Zn(II)IDHA

ECHA No.: 01-2119446084-43-0000

CAS No: 666748-59-0 EC No.: 931-053-6

IUPAC name: Reaction mass of disodium [2,2'-(imino-κN)dibutanedioato-κ2O1,O4(4-)]zincate(2-) and sodium nitrate

Molecular formula: ZnC₈H₇NO₈Na₂

3.2. Mixtures - not concern

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice: The first step is to put the injured person from a contaminated environment.

If swallowed:

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| 1. | Rinse mouth, give 2-3 glasses of water to drink. Seek medical attention. Induce vomiting. Never give anything by mouth to an | | |
|---------|--|--|--|
| | unconscious person. | | |
| 2. | Until transporting the patient to the hospital to ensure peace, lying and warm. | | |
| In cas | e of eye contact: | | |
| 1. | Rinse thoroughly with plenty of cold water. | | |
| 2. | Seek medical attention. | | |
| In cas | e of skin contact: | | |
| 1. | Rinse off with plenty of water. Remove contaminated cloths. | | |
| 2. | If symptoms persist, seek medical attention. | | |
| If inha | lled | | |
| 1. | Unlikely route of exposure due to the form of the product - a non-dusting microgranules. | | |
| 2. | Move to fresh air. If needed, seek medical attention. | | |

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

The most important known symptoms and effects are described in section 2.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment: Symptomatic treatment.

SECTION 5: Firefighting measures

| 5.1. Extinguishing media | Depending on the materials stored in the neighbourhood use following extinguishing media: foam, water spray, dry chemical powder, CO ₂ . | |
|------------------------------|---|--|
| | Unsuitable extinguishing media: none known. | |
| 5.2. Special hazards arising | sing Hazardous decomposition / combustion products: produces oxides of nitrogen on | |
| from the substance or | combustion: NO _x and also CO, CO ₂ | |
| mixture | | |
| 5.3. Advice for firefighters | Fire-fighters should wear suitable protective clothing such as boots, overalls, gloves, eye | |
| | and face protection and breathing apparatus. Do not allow to enter fire-fighting water to | |
| | surface water or groundwater. | |

SECTION 6: Accidental release measures

| General advice: | Do not flush into public water courses. Do not empty into drains, ground or surface water and soil. If the product enters drains or water, immediately inform appropriate authorities. |
|--|--|
| 6.1. Personal precautions, protective equipment and emergency procedures | Ensure adequate ventilation. Use personal protective equipment – see section 8. |
| 6.2. Environmental precautions | Do not let product enter drains. If the product enters drains or water, immediately inform appropriate authorities. |
| 6.3. Methods and material for containment and cleaning up | Sweep up shovel. Contain spillage and then collect by wet-brushing and place in container for disposal according to local regulations. After removal, wash the contaminated area with water. |
| 6.4. Reference to other sections | For disposal see section 13. For personal protective equipment see section 8. |

SECTION 7: Handling and storage

| 7.1. Precautions for safe handling | Avoid formation of dust. Provide appropriate exhaust ventilation at places where dust is formed. Handle in accordance with good industrial hygiene and safety practice. Use personal protective equipment according to section 8. Do not disposal to sewage system. |
|---|---|
| 7.2. Conditions for safe storage, including any incompatibilities | Keep in original, tightly closed container in a dry well-ventilated place. Keep away from heat and source of ignition. Recommended storage temperature: -10°C till + 30°C. |
| 7.3. Specific end use(s) | No data available. |

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

According to the country-specific regulations.

8.2. Exposure controls

Personal protective equipment:

| Eye/face protection | Use safety goggles |
|-----------------------|---|
| Skin/hands protection | Handle with protective gloves (recommended nitrile gloves, layer thickness 0,11 mm and breakthrough |

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| | time > 480 minutes). Use protective clothing. |
|---------------------|--|
| Industrial hygiene: | Handle in accordance with good industrial hygiene and safety practice. Change contaminated clothing. Avoid contact with skin. Avoid breathing dust. Wash hands after working with substance. When using do |
| | not eat or drink. Immediately remove spilled substance. |

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| Appearance | Solid, microgranules |
|---|------------------------------------|
| Colour | white |
| Odour | Odourless |
| pH 1% solution | 8,0±1,0 |
| Melting point/freezing point | Partial decomposition at 120°C |
| Initial boiling point | No data available |
| Flash point | No data available |
| Evaporation rate | No data available |
| Flammability (solid, gas) | Not flammable (Method A.10) |
| Upper/lower flammability or explosive limits; | Not applicable |
| Vapour pressure | No data available |
| Vapour density | Not applicable |
| Relative/bulk density | No data available |
| Solubility(ies) | Water: 2,97 g/dm³ at 20°C and pH 7 |
| Partition coefficient: n-octanol/water | No data available |
| Auto-ignition temperature | 264°C (Method A.16) |
| Decomposition temperature | Partial decomposition at 120°C |
| Viscosity | Not applicable |
| Explosive properties | Not explosive (Method A.14) |
| Oxidizing properties | Not oxidising (Method A.17) |

9.2 Other information

No data available

SECTION 10: Stability and reactivity

- 10.1 Reactivity the substance has low chemical reactivity.
- 10.2 Chemical stability stable under normal conditions of use and storage.



- 10.3 Possibility of hazardous reactions no data available
- 10.4 Conditions to avoid keep away from heat.
- 10.5 Incompatible materials none.
- 10.6 Hazardous decomposition products in the event of fire produces oxides of nitrogen NO_x

SECTION 11: Toxicological information

Acute toxicity:

| Substance name | % w/w | Method | Result | Units |
|----------------|-------|-------------------------------------|--------|------------|
| | | LD ₅₀ (oral, rat, OECD | >2000 | mg/kg |
| Zn(II)IDHA | 100 | 420/Method B.1. Bis) | | |
| | | LD ₅₀ (dermal, rat, OECD | >2000 | mg/kg b.w. |
| | | 402) | | |

Skin corrosion/irritation - no irritating (OECD 404/Method B.4)

Serious eye damage/eye irritation - no irritating (OECD 405/method B.5)

Respiratory or skin sensitization - no skin or respiratory sensitization (OECD 406/Method B.6)

Germ cell mutagenicity - no mutagenic

Carcinogenicity - no carcinogenic

Reproductive toxicity - not harmful

Specific target organ toxicity (STOT) - single exposure - not harmful

Specific target organ toxicity (STOT)- repeated exposure - not harmful

Aspiration hazard - not applicable (solid substance)

Potential health effects - No data available.

Signs and Symptoms of Exposure - No data available.

SECTION 12: Ecological information

12.1. Toxicity

| Substance name | % w/w. | Method | Result | Units |
|----------------|--------|---|--------|-------|
| | | LC ₅₀ (fish, 96h, OECD 203) | >100 | mg/L |
| Zn(II)IDHA | 100 | EC ₅₀ (Daphnia manga, 48h, OECD 202 | >3,16 | mg/L |
| | | E _r C ₅₀ (algae, 72h, OECD 201) | 255 | mg/L |
| | | E _y C ₅₀ (algae, 72h, OECD 201) | 8,0 | mg/L |
| | | NOEC/72h | <1,0 | mg/L |

12.2 Persistence and degradability

Biodegradation according to OECD 302B - 99% after 28 days.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

The substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII of the REACH Regulation. Chemical safety assessment not required (not conducted).

12.6 Other adverse effects - no data available

SECTION 13: Disposal considerations

Packaging mast be disposed of in compliance with the country-specific regulations or mast be passed to a packaging return system. Under www.retrologistik.de you will find special information on the respective national conditions as well as contact partners.

SECTION 14: Transport information

| 14.1 | UN number | Not applicable |
|------|-------------------------|----------------|
| 14.2 | UN proper shipping name | Not applicable |

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Safety Data Sheet

according to Regulation (EC) No. 453/2010



Oligo Zinc IDHA 10%

| 14.3 | Transport hazard class(es) | Not applicable |
|------|---|----------------|
| 14.4 | Packing group | Not applicable |
| 14.5 | Environmental hazards | Not applicable |
| 14.6 | Special precautions for user | Not applicable |
| 14.7 | Transport in bulk according to Annex II of MARPOL 73/78 and the | Not applicable |
| | IBC Code | |

SECTION 15: Regulatory information

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

- Directive 67/548/EEC
- 2. REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENTAND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC with amendments
 3. COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation,
- Authorisation and Restriction of Chemicals (REACH)
 4. REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
- of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No
- 5. European Agreement concerning the International Carriage of Dangerous Goods by Road
 6. Regulation (EU) No 649/2012 Of The European Parliament and of The Council of 4 July 2012 concerning the export and import of hazardous chemicals.
- 7. Regulation (EC) No 850/2004 Of The European Parliament and of The Council Of 29 April 2004 On Persistent Organic Pollutants And Amending Directive 79/117/EEC.

15.2. Chemical Safety Assessment

For this substance a chemical safety assessment was not carried out.

SECTION 16: Other information

Company disclaimer

The information provided in this safety data sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any proceed, unless specified in the text.

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