Safety Data Sheet
According to Regulation (EC) No 2020/878

Oligo Vizoke Mix

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

1.1. Product identifier
Trade name: Oligo Vizoke Mix

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture: fertilizer.
Uses advised against – not identified.

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
In case of emergency contact the national emergency telephone number: UK and Ireland: 112 or 999

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
Classification according to Regulation EU-GHS/CLP No 1272/2008:
Rep. 1B, H360FD May damage fertility. May damage the unborn child.
Skin Sens. 1B, H317 May cause an allergic skin reaction.

2.2. Label elements
Substances requiring disclosure on the label: boric acid.

Danger
H360FD May damage fertility. May damage the unborn child.
H317 May cause an allergic skin reaction.
P280 Wear protective gloves, protective clothing, eye protection or face protection.
P308+PP313 IF exposed or concerned: Get medical advice.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P361 Take off immediately all contaminated clothing.
P405 Store locked up.
P501 Dispose of contents/container according to local regulations.
Restricted to professional users.

2.3. Other hazards
The mixture does not meet the criteria for PBT or vPvB in accordance with Annex XIII of the REACH Regulation. (see section 12). Does not contain substances included in the list established in accordance with Article 59(1) for having endocrine disrupting properties or identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substances – not concern
3.2. Mixtures
Hazard substances:

Substance	Concentration		
boric acid, H3BO3	> 0,3% w/w	CAS No	10043-35-3
		EC No	233-139-2
		Index No	005-007-00-2
		REACH No	01-2119486683-25-XXXX
		Classification according to Regulation 1272/2008	Rep. 1B, H360FD c ≥ 0,3%
Cu IDHA copper chelate of disodium salt N-[1,2 dicarboxyethyl] D,Laspartic acid,	< 5% w/w	CAS No	666828-79-1
		EC No	Not available
		Index No	Not available
		REACH No	01-2120011103-83-0000
		Classification according to Regulation 1272/2008	Acute Tox 4, H302 Aquatic Chronic 3, H412

Oligo Vizoke Mix

Fe IDHA	> 1%	CAS No	666288-40-6
iron(III)-D,L aspartic acid N-(1,2 dicarboxyethyl)		EC No	476-670-7
		Index No	Not available
		REACH No	01-0000019926-0000
		Classification according to Regulation 1272/2008 Skin Sens. 1B H317	

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:
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 case of eye contact:
1. Rinse thoroughly with plenty of cold water.
2. If needed, seek medical attention.
In case of skin contact:
1. Rinse off with plenty of water. Remove contaminated cloths.
2. If symptoms persist, seek medical attention.
If inhaled
1. 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, CO2..
Unsuitable extinguishing media: none known.

5.2. Special hazards arising from the substance or mixture
Hazardous decomposition / combustion products: produces oxides of nitrogen on combustion: NyOx,

5.3. Advice for firefighters
Fire-fighters should wear suitable protective clothing such as boots, overalls, gloves, eyes 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
Handle in accordance with good industrial hygiene and safety practice. Use personal protective equipment according to section 8. Do not disposal to sewage system. Avoid formation of dust.

7.2. Conditions for safe storage, including any incompatibilities
Keep in original, tightly closed container in a dry, cool place. Keep away from heat and source of ignition.

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 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 product. When using do not eat or drink. Immediately remove spilled product.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Solid, microgranular
Colour	Brownish-white- blue
Odour	Odourless
Melting point/freezing point	No data available
Boiling point or initial boiling point and boiling range	No data available
Flammability (solid, gas)	Not flammable
Upper and lower explosion limit	Not applicable
Flash point	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
pH of 1% water solution	5.5 ± 1.0
Kinematic viscosity	No data available
Solubility	Soluble in water
Partition coefficient: n-octanol/water (log value)	Not relevant as the mixture is inorganic
Vapour pressure	No data available
Bulk density	0.85 ± 0.10 g/cm3
Relative vapour density	No data available
Particle characteristics	0.2 – 1.2 mm

9.2 Other information

Boron (B)	0.4 %
Copper (Cu) chelated by IDHA	0.6 %
Iron (Fe) chelated by IDHA	2.0 %
Mnganese (Mn) chelated by IDHA	2.7 %
Molybdenum (Mo)	0.08 %
Zinc (Zn) chelated by IDHA	3.7 %
Conductivity of 0.1% solution	0.78 ± 0.04 mS/cm at 20°C
Conductivity of 1% solution	6.20 ± 0.20 mS/cm at 20°C

SECTION 10: Stability and reactivity

10.1 Reactivity - the mixture 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 NyOx

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008
There no available toxicological studies for the mixture as such. The assessment was made on the basis of ownership of components of the mixture.
a) Acute toxicity: not harmful
b) Skin corrosion/irritation - no irritating
c) Serious eye damage/eye irritation - no irritating
d) Respiratory or skin sensitization – may cause an allergic skin reaction
e) Germ cell mutagenicity - no mutagenic
f) Carcinogenicity – not carcinogenic
g) Reproductive toxicity – may damage fertility, may damage the unborn child.
h) Specific target organ toxicity (STOT) - single exposure – not harmful
i) Specific target organ toxicity (STOT)- repeated exposure - not harmful

j) Aspiration hazard – not applicable
Potential health effects
No data available.
Signs and Symptoms of Exposure
No data available.
Boric acid – toxicity data
Acute toxicity: not harmful
LD50 (oral) > 2 600 mg/kg bw (rat, OECD 401/EU Method B.1.)
LC50 (inhal.) > 2,03 mg/L powietrza (rat, 4h, OECD 403)
LD50 (dermal)> 2 000 mg/kg bw (rabbit, FIFRA 40 CFR 163)
Skin corrosion/irritation - no irritating, (rabbit, FIFRA (40 CFR 163)
Serious eye damage/eye irritation - no irritating, (rabbit, OECD 405)
Respiratory or skin sensitization - no skin or respiratory sensitization (OECD 406)
Germ cell mutagenicity - no mutagenic
Method OECD 482 – negative
Bacterial Reverse Mutation Assey (OECD 471, S. typhimurium) – negative
In vitro mammalian cell gene mutation test (wg. 40 CFR Part 158 US-EPA-FIFRA, Section 156.340) – genotoxicity – negative; cytotoxicity – the results depend on concentration.
Mammalian Erythrocyte Micronucleus Test (OECD Guideline 474) – negative
Carcinogenicity - no carcinogenic (OECD Guideline 451, mouse)
Reproductive toxicity – May damage fertility. Suspected of damaging the unborn child.
NOAEL 34-100 mg/kg bw of boric acid (equivalent 5.9 and 17.5 mg B/kg bw).
Specific target organ toxicity (STOT) - single exposure – not harmful (ASTM E981-04 (2004))
Specific target organ toxicity (STOT)- repeated exposure - not harmful (method similar to OECD 452),
Aspiration hazard – not applicable
FeIDHA (CAS 666288-40-6) – available toxicological data
Acute toxicity – not harmful
LD50 (oral, rat, OECD 420/Method B.1. Bis) >2000 mg/kg bw
LD50 (dermal, rat, OECD 402/EU Method B.3) >2000 mg/kg bw
Skin corrosion/irritation - no irritating (OECD Guideline No 404 / Method B.4.)
Serious eye damage/eye irritation - no irritating (OECD Guideline No 405 / Method B.5.)
Respiratory or skin sensitization - may cause an allergic skin reaction (OECD 406)
Germ cell mutagenicity - no data
Carcinogenicity - no data
Reproductive toxicity – not data
Specific target organ toxicity (STOT) - single exposure – not harmful
Specific target organ toxicity (STOT)- repeated exposure - not harmful
Aspiration hazard – not applicable
Potential health effects - No data available.
Signs and Symptoms of Exposure - No data available.
CuIDHA – toxicity data
Acute toxicity
LD50 (oral, rat, OECD 420) 300 < LD50 <2000 mg/kg b.w. - harmful if swallowed
LD50 (dermal, rat, OECD 402/Method B.3) >2000 mg/kg b.w.
Skin corrosion/irritation - no irritating (OECD 404/ EU method B.4.)
Serious eye damage/eye irritation - no irritating (OECD 405/EU Method B.5)
Respiratory or skin sensitization - no skin or respiratory sensitization (OECD 406/EU 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 harmful
Potential health effects - No data available.
Signs and Symptoms of Exposure - No data available.

11.2. Information on other hazards
Does not contain substances included in the list established in accordance with Article 59(1) for having endocrine disrupting properties or identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 12: Ecological information

12.1. Toxicity
There no available ecotoxicological studies for the mixture as such. The assessment was made on the basis of ownership of components of the mixture.

12.2 Persistence and degradability
No data available.

12.3 Bioaccumulative potential
No data available.

12.4 Mobility in soil
No data available.

12.5 Results of PBT and vPvB assessment
The mixture does not meet the criteria for PBT or vPvB in accordance with Annex XIII of the REACH Regulation.

12.6 Endocrine disrupting properties
Does not contain substances included in the list established in accordance with Article 59(1) for having endocrine disrupting properties or identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7 Other adverse effects - no data available
FeIDHA – ecotoxicity data
LC50 (fish, 96h, OECD 203) >100 mg/L
EC50 (Daphnia manga, 48h, OECD 202 >100 mg/L
ErC50 (algae, 72h, OECD 201) >100 mg/L
EyC50 (algae, 72h, OECD 201) >100 mg/L
NOEC/72h >100 mg/L
CuIDHA – ecotoxicity data
Toxicity to aquatic organisms
LC50 (fish, 96h) >100 mg/L
EC50 (daphnia, 48h) 37,72 mg/L
ErC50 (algae, 72h) >250 mg/L
EyC50 (algae, 72h) 54,57 mg/L
NOEC (algae, 72h) 1,0 mg/L
Persistence and degradability
Biodegradation acc. OECD 302 92% after 28 days.
Cu(II)IDHA was found to be inherently biodegradable. Based on the results of another study (Cokesa et al., 2004), it was shown that the substance is potentially biodegradable.
Bioaccumulative potential
Bioaccumulation in aquatic organisms is not expected for CuIDHA. This conclusion is based on the substance specific log Pow of -3.09 at 23 °C (equals Pow of ca. 0.001; experimentally determined; Stegient-Nowicka, 2011). Such a very low value indicates a lack of bioaccumulation potential.
Mobility in soil
Soil adsorption is not expected for CuIDHA based on the intrinsic physico-chemical properties, i.e. logPow of -3.09. The QSAR prediction with KOCWIN v2.00 (logKoc = 1.257 L/kg) reveals that the substance possesses no strong binding capacity towards soil.
Results of PBT and vPvB assessment
CuIDHA does not meet the criteria for PBT or vPvB in accordance with Annex XIII of the REACH Regulation.

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.

SECTION 14: Transport information

ADR/RID/AND/IMDG/ICAO

14.1 UN number	Not applicable
14.2 UN proper shipping name	Not applicable
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 Maritime transport in bulk according to IMO instruments	Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
REACH – Restriction on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)
Conditions of restriction for the following entries should be considered: Number on list 30
REACH- Candidate List of Substances of Very High Concern for Authorisation (Article 59)
Contains boric acid (CAS 10043-35-3) included in the Candidate List of SVHC, decision 18 June 2010, ED/30/2010
REACH – list of substances subject to authorisation (Annex XIV)
Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer
Not applicable
Regulation (EU) 2019/1021 on persisten organic pollutants
Not applicable
Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals
Not applicable
Sevesco III: Directive 2012/18/EU of the European Parliament and the Council on the control of major-accident hazards involving dangerous substances
Not applicable
1. 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
2. COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
3. 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 1907/2006; with amendments
4. 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.
5. 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.
6. European Agreement Concerning The International Carriage Of Dangerous Goods By Road (ADR).
15.2. Chemical Safety Assessment
The chemical safety assessment was not carried out (not required for mixture).

SECTION 16: Other information

Other information:
Classification of mixture was carried on based on ingredients of the mixture (Additivity formula)
Abbreviations:
Rep. 1B – Reproductive toxicity category 1B
Acute Tox 4 – acute toxicity category 4
Eye Irrit. 2 – eye irritation, category 2
Skin Sens. 1B - skin sensitization category 1B
H302 - Harmful if swallowed
H319 - Causes serious eye irritation.
NOAEL: No Observed Adverse Effect Level
NOEC: No observed effect concentration.
LD50: Lethal Dose 50%. The LD50 corresponds to the dose of a tested substance causing 50% lethality during a specified time interval.
LC50: Lethal Concentration 50%. The LC50 corresponds to the concentration of a tested substance causing 50% lethality during a specified time interval.
EC50: Effective Concentration 50%. The EC50 corresponds to the concentration of a tested substance causing 50% changes in response (e.g. on growth) during a specified time interval.
BCF: Bioconcentration factor
PBT: Persistent, bioaccumulative and toxic
vPvB: Very Persistent and very Bioccumulative

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.