

Safety Data Sheet

According to Regulation (EC) No 2020/878

Oligo Serua Mix

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

1.1. Product identifier

Trade name: Oligo Serua 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

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3273 LK Westmaas - Nederland

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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.

2.2. Label elements

Substances requiring disclosure on the label: boric acid.



Danger

H360FD May damage fertility. May damage the unborn child.

P201 Obtain special instructions before use.

P308+PP313 IF exposed or concerned: Get medical advice/ attention.

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	CAS No	10043-35-3
boric acid, H3BO3	> 0,3% w/w	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%
Ethylenediaminetetraacetic acid, cooper-disodium complex, Cu EDTA	<10% w/w	CAS No	14025-15-1
		EC No	237-864-5
		Index No	No available
		REACH No	01-2119963944-23-0002
		Classification according to Regulation 1272/2008	Acute Tox 4, H302
			Eye Irrit. 2, H319

Safety Data Sheet

According to Regulation (EC) No 2020/878



Oligo Serua Mix

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

Safety Data Sheet

According to Regulation (EC) No 2020/878



Oligo Serua Mix

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	Brown-pinkish-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	8.5 ± 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/cm ³
Relative vapour density	No data available
Particle characteristics	No data available

9.2 Other information

Boron (B)	0.10 %
Copper (Cu) chelated by EDTA	1.00 %
Iron (Fe) chelated by EDDHA	2.20 %
Manganese (Mn) chelated by EDTA	3.40 %
Molybdenum (Mo)	0.10 %
Zinc (Zn) chelated by EDTA	4.40 %
Conductivity of 0.1% solution	0.43 ± 0.04 mS/cm at 20°C
Conductivity of 1% solution	3.60 ± 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.

Safety Data Sheet

According to Regulation (EC) No 2020/878



Oligo Serua Mix

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 Assay (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

CuEDTA – toxicity data

Acute toxicity:

LD50 (oral, rat) 890 mg/kg – harmful if swallowed

LC50 (rat, inhal, 4 h, OECD 436) > 5,32 mg/L

Skin corrosion/irritation – slight irritated, but no classification and labeling was considered to be needed based on the results of this study.

Serious eye damage/eye irritation – irritating according to OECD test No 405

Respiratory or skin sensitization – not sensitising (OECD 429)

Germ cell mutagenicity - The test substance EDTA-CuNa2 is not mutagenic in the Ames test under the experimental conditions used (OECD 471).

Carcinogenicity - conclusive but not sufficient for classification

Reproductive toxicity – conclusive but not sufficient for classification

Specific target organ toxicity (STOT) - single exposure – conclusive but not sufficient for classification

Specific target organ toxicity (STOT)- repeated exposure – conclusive but not sufficient for classification

Aspiration hazard – not applicable (solid substance)

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

CuEDTA – ecotoxicity data

Toxicity to aquatic organisms

LC50 (fish, 96h) 555 mg/L

Persistence and degradability

Cu EDTA is not readily biodegradable according to OECD criteria, but ultimately biodegradable under special environmental conditions (slightly alkaline pH). No biodegradation observed in activated sludge simulation test (OECD TG 303 A).

Bioaccumulative potential

The substance has a low potential for bioaccumulation (the log Kow is ≤ 4,5).

Mobility in soil

Safety Data Sheet

According to Regulation (EC) No 2020/878



Oligo Serua Mix

The estimated log Koc values are less than the threshold value of 3 indicating no adsorbing potential for this compound. The estimated log Koc for EDTA-CuNa2 is 1 (worst case, MCI method).

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.

Other adverse effects - no data available

SECTION 13: Disposal considerations

Packaging must be disposed of in compliance with the country-specific regulations or must 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 persistent 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 PARLIAMENT AND 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.

Safety Data Sheet

According to Regulation (EC) No 2020/878



Oligo Serua Mix

BCF: Bioconcentration factor

PBT: Persistent, bioaccumulative and toxic

vPvB: Very Persistent and very Bioaccumulative

Company disclaimer

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