

Oligo Boron 150 g/L Liquid

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

1.1. Product identifier

Product form : Substance in aqueous solution
Trade name : **Van Iperen Oligo Boron 150 g/L Liquid**
Chemical name : Boron ethanolamine
IUPAC name : Boric acid (H₃BO₃), reaction products with ethanolamine
EC no : 302-207-4
CAS No. : 94095-04-2
EC-FERTILISER : E.1.1 (d)

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

1.2.1. Relevant identified uses

Use of the substance/preparation : Fertilizer

1.2.2. Uses advised against

No additional information available

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
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 (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Not classified as dangerous according to the criteria of Regulation (EC) No 1272/2008.

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH, annex XIII.

This substance/mixture does not meet the vPvB criteria of REACH, annex XIII.

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : UVCB

Name	Product identifier	%	Classification according to Directive 67/548/EEC
boron ethanolamine (Main constituent)	(CAS No.) 94095-04-2 (EC no) 302-207-4	85	Not classified
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
boron ethanolamine (Main constituent)	(CAS No.) 94095-04-2 (EC no) 302-207-4	85	Not classified

Full text of R-, H- and EUH-phrases: see section 16.

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SECTION 3: Composition/information on ingredients (continue)

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital
First-aid measures after inhalation	: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	: Rinse with water. Soap may be used. Remove all contaminated clothing and footwear. Take victim to a doctor if irritation persists.
First-aid measures after eye contact	: Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Take victim to an ophthalmologist if irritation persists.
First-aid measures after ingestion	: If victim conscious and alert, give 1-2 glasses of water to drink. If swallowed, do NOT induce vomiting. Immediately consult a doctor/medical service.

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

Symptoms/injuries after inhalation	: Slight irritation. Exposure to high concentrations: Irritation of the respiratory tract. Dry/sore throat. Coughing. Respiratory difficulties
Symptoms/injuries after skin contact	: Slight irritation. Red skin.
Symptoms/injuries after eye contact	: Redness of the eye tissue. Slight irritation. Visual disturbances.
Symptoms/injuries after ingestion	: Nausea. Vomiting.
Chronic symptoms	: On continuous/repeated exposure/contact: dry skin. skin rash/inflammation.

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

Follow the advices in chapter 4.1.
Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Extinguishing media for surrounding fires : All extinguishing media allowed. Use fire extinguishing methods suitable to surrounding conditions.
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5.2. Special hazards arising from the substance or mixture

Fire hazard	: Direct fire hazard: Non combustible.
Explosion hazard	: No direct explosion hazard.
Reactivity	: On burning: release of toxic and corrosive gases/vapours (nitrous vapours).

5.3. Advice for firefighters

Precautionary measures fire	: Exposure to fire/heat: have neighbourhood close doors and windows. Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation.
Firefighting instructions	: Dilute toxic gases with water spray.
Protection during firefighting	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Ensure adequate air ventilation. Do not get in eyes, on skin, or on clothing.
Keep away from naked flames/heat.

6.1.1. For non-emergency personnel

Protective equipment : Wear protective gloves/protective clothing/eye protection as advised in section 8.

Emergency procedures : Mark the danger area. No naked flames. Keep containers closed. Wash contaminated clothes.
In case of hazardous reactions: keep upwind. In case of reactivity hazard: consider evacuation.

6.1.2. For emergency responders

Protective equipment : Wear protective gloves/protective clothing/eye protection as advised in section 8.

6.2. Environmental precautions

Stop leaks if possible. Dam up the liquid spill. Prevent spreading in sewers. Prevent soil and water pollution. Contain leaking substance, pump over in suitable containers. Turn leaking containers leak-side up to prevent the escape of liquid. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Any spillage should be cleaned up immediately.
Collect spill in closed and suitable containers for disposal.
Take up rest of liquid spill into absorbent material sand, earth, vermiculite.
Scoop absorbed substance into closing containers.

Methods for cleaning up : Clean contaminated surfaces with an excess of water.
Wash clothing and equipment after handling.

Other information : Dispose the product, depending on the degree and type of contamination, either as fertilizer or in an authorized waste disposal site.

6.4. Reference to other sections

See section 1 for emergency contact information.

See section 8 for information on appropriate personal protective equipment.

See section 13 for additional waste treatment information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Use sufficient ventilation. Do not get in eyes, on skin, or on clothing.
Wear protective gloves/protective clothing/eye protection as advised in section 8.

Hygiene measures : Do not eat, drink or smoke during use. Always wash hands after handling the product.
Remove contaminated clothing and protective equipment before entering eating areas.
Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Do not discharge the waste into the drain.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep preferably in the original container.

Storage temperature : -10 - 30 °C

Storage area : Store in dry, cool, well-ventilated area. Keep out of direct sunlight.

Special rules on packaging : Meet the legal requirements. correctly labelled. closing.
Secure fragile packagings in solid containers.

Packaging materials : polyethylene. polypropylene. Stainless steel.

7.3. Specific end use(s)

Fertilizers.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Oligo Bore 150 g/l Liquid (94095-04-2)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	3,3 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	5,9 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	1,7 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1,4 mg/m ³
Long-term - systemic effects, dermal	1,7 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0,026 mg/l
PNEC aqua (marine water)	0,0026 mg/l
PNEC aqua (intermittent, freshwater)	0,26 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0,054 mg/kg dwt
PNEC sediment (marine water)	0,0054 mg/kg dwt
PNEC (Soil)	
PNEC soil	0,014 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	66,7 kg/kg food mg/kg food
PNEC (STP)	
PNEC sewage treatment plant	10 mg/l

8.2. Exposure controls

Appropriate engineering controls

- : No particular/specific measures required.
- Good practice advice: Ensure good ventilation of the work station.
- Care for eyewashstations and security showers at the workplace.

Personal protective equipment



Hand protection

- : Gloves.

Material selection gloves

- : Nitrile rubber, neoprene.
- Take advice to your gloves' supplier

Eye protection

- : Safety glasses. Face shield where there is a risk of leaks or splashes.

Skin and body protection

- : Normal working clothes are suitable.

Respiratory protection

- : Ensure adequate air ventilation. Mist formation: aerosol mask with filter type P2.

Environmental exposure controls

- : In some cases proces modifications will be necessary to reduce emissions to acceptable levels. Emissions from ventilation or work process equipment should be checked to ensure they comply with legislation.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Colour	: Colourless-yellow.
Odour	: Characteristic.
Odour threshold	: No data available
pH	: ± 8
Crystallization temperature	: -15 °C
Explosive limits	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Density	: 1,360 kg/l
Solubility	: Water: complete
Log Pow	: No data available
Decomposition temperature	: No data available
Viscosity, dynamic	: ± 934 mPa.s Brookfield 15°C
Explosive properties	: not explosive.
Oxidising properties	: not oxidising.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

On burning: release of toxic and corrosive gases/vapours (nitrous vapours).

10.2. Chemical stability

The product is stable at normal handling- and storage conditions.

10.3. Possibility of hazardous reactions

Thermal decomposition can lead to the escape of irritating gases and vapours (oxides of nitrogen).

This product can react with strong reducing or oxidizing agents. May react violently with acids. and with (some) bases.

10.4. Conditions to avoid

Avoid high temperatures.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

On burning: release of toxic and corrosive gases/vapours (nitrous vapours, ammonia, carbon monoxide - carbon dioxide).

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified (Based on available data, the classification criteria are not met)
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: ± 8
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: ± 8
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (single exposure)	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (repeated exposure)	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Potential Adverse human health effects and symptoms	: When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Classification concerning the environment: not applicable.

Oligo Bore 150 g/l Liquid (94095-04-2)	
LC50 fish 1	> 100 mg/l
EC50 Daphnia 1	457 - 563
ErC50 (algae)	21 - 31 mg/l
NOEC chronic algae	3,2 mg/l

12.2. Persistence and degradability

Oligo Bore 150 g/l Liquid (94095-04-2)	
Persistence and degradability	In accordance with column 2 of REACH Annex VII, the ready biodegradability test does not need to be conducted as the substance is inorganic.

12.3. Bioaccumulative potential

Oligo Bore 150 g/l Liquid (94095-04-2)	
Bioaccumulative potential	Bioaccumulation: not applicable.

12.4. Mobility in soil

Oligo Bore 150 g/l Liquid (94095-04-2)	
Ecology - soil	Soluble in water.

12.5. Results of PBT and vPvB assessment

Oligo Bore 150 g/l Liquid (94095-04-2)	
This substance/mixture does not meet the PBT criteria of REACH, annex XIII.	
This substance/mixture does not meet the vPvB criteria of REACH, annex XIII.	

12.6. Other adverse effects

No additional information available

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

EURLW code	: 02 01 09 - agrochemical waste other than those mentioned in 02 01 08 <i>Depending on branch of industry and production process, also other EURLW codes may be applicable</i>
Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose the product, depending on the degree and type of contamination, either as fertilizer or in an authorized waste disposal site. Empty and rinsed containers can be disposed as non-hazardous material or be returned for recycling.
Waste disposal recommendations	: Do not discharge into drains or the environment. Care should be taken when handling emptied containers that have not been cleaned or rinsed out.

SECTION 14: Transport information

No dangerous good in sense of transport regulations.

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

EURLW code : 02 01 09

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

The chemical safety assessment has not been finalized

SECTION 16: Other information

Version	: 3.0
Revision date	: 28-06-2012
Date of issue	: 29-10-2008
Supersedes	: 17-02-2011
Indication of changes	: This safety data sheet is fully revised according to the CLP and REACH regulations.
Data sources	: BIG-database ECHA Website: Information on Registered Substances Handbook of Chemistry and Physics CRC Press Inc Information from suppliers.
Abbreviations and acronyms	: CLP = Classification, labelling and packaging DNEL = Derivative No Effect Level n.a. = not applicable PNEC = Predicted No Effect Concentration REACH = Registration, evaluation and autorisation of chemicals.
Training advice	: Before using/handling the product one must read carefully the MSDS.

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.