

1 Identification

GHS Product Identifier

Product name: Oligo® B 2.0

Type of product : Liquid solution

Recommended use of the chemical and restriction on use
Liquid and foliar fertilizer

Supplier's details

Axter Agroscience Inc.
895 chemin Benoit
Québec, Canada
J3H 0N7

Contact number: 450-464-5755
Opening Hours: 7AM - 5PM Monday to Friday

Emergency phone number

CANUTEC: 1-888-226-8832

**Canadian Association of
Poison Control Centres :** www.capcc.ca

2 Hazard(s) identification

Classification of the substance or mixture

Classification: GHS-CA

GHS label elements

Danger



May damage the unborn child.

May damage fertility.

May cause damage to organs (state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)

Do not handle until all safety precautions have been read and understood.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wear protective gloves/protective clothing/eye protection/face protection.

Dispose of contents/container to meet proper regulations or use Clean Farms Empty Container Program

Other hazards which do not result in classification

No additional information available

3 Composition/information on ingredients

Description	CAS Number	EINECS Number	%	Note
Boric acid	10043-35-3		55 - 60	
Monoethanolamine	141-43-5		18 - 22	

4 First-aid measures

Description of necessary first-aid measures

Not expected to present a significant hazard under anticipated conditions of normal use.

FOLLOWING INHALATION	Move exposed person to fresh air and facilitate breathing and if required facilitate A. R. If you feel unwell, seek medical advice immediately
FOLLOWING SKIN EXPOSURE	Wash skin with plenty of water and soap. Rinse thoroughly. Get medical advice/attention immediately.
FOLLOWING EYE EXPOSURE	Rinse immediately with plenty of water for at least 15 minutes occasionally lifting eyelids. If victim wears contact lenses, try to remove them and continue rinsing. Seek immediate medical attention
FOLLOWING INGESTION	Rinse mouth. Do NOT induce vomiting. Seek immediate medical advice.

Most important symptoms/effects, acute and delayed

Symptoms

The symptoms are flu-like: discomfort, joint pain, fever, cough and shortness of breath.

We can observe headaches, nausea, vomiting and dizziness

Effects (acute or delayed):

Can cause depression of the central nervous system.

Following repeated exposure, damage to the pancreas may occur.

Following repeated exposure, liver and kidney damage may occur.

If ingested in large quantities may cause gastro-intestinal disorders.

Studies suggest the possibility of an increase in congenital malformations.

Indication of immediate medical attention and special treatment needed, if necessary

NOTE TO PHYSICIAN: Treat symptomatically

5 Fire-fighting measures

Suitable extinguishing media

Use extinguishing agent suitable for the type of surrounding fire;

Foam, chemical powder, CO₂, water in a spray, sand, water mist

Avoid excessive water to minimize runoff into the environment.

Specific hazards arising from the chemical

- No specific danger
- In case of fire, dangerous decomposition products can be formed such as:
 - Carbon Monoxide (CO), Carbon Dioxide (CO₂), Nitrous Oxide
- A prolonged exposure to fire or high temperatures may cause the containers to fail

Special protective actions for fire-fighters

- Use water spray or fog to cool exposed containers.
- Do not enter fire area without proper protective equipment, including full face, positive pressure respiratory protection.
- Control all water used by firefighters to prevent any spill into the environment.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

- **P.P.E.**

Do not take any measure or actions that involves a personal risk or if not properly trained

Evacuate surroundings

Do not touch or walk in the spilled product

Try not to inhale any vapor or fog

Ensure proper ventilation

Make sure to wear an adequate mask or positive pressure apparatus if ventilation is not adequate

Wear proper PPE before entering in spill area.

Environmental precautions

Make sure not to let any product or contaminated water enter the environment, water ways or sewers

Prevent any spillage on or toward open soil, drains, sewers, ditches or waterways.

Advise proper authorities if product has entered the environment.

Use an inert absorbant or absorbent rolls to stop and control leak.

Methods and materials for containment and cleaning up

Stop leak if no risk is involved

Remove all unbroken containers from spill area

Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

Collect all waste in suitable and labelled containers

Dispose according to local legislation.

Dispose through approved methods

7 Handling and storage

Precautions for safe handling

Wear P.P.E. when conditions increase the risk of exposure.

Do not eat, drink or smoke in areas where this product is produced, handled and stored.

People working with this product should wash their hands and face before they eat, drink or smoke

Avoid all contact with eyes, skin or clothing

Do not inhale vapors of fog

Do not enter in an enclosed area unless proper ventilation is in place

Keep in original sealed container until product is used

Empty container may contain residues and can represent a danger

Conditions for safe storage, including any incompatibilities

Keep in original containers until product is used

Store in a well-ventilated place.

Product must be stored in a proper area and maintained at a temperature > 5 °C

Skid must not be stacked more than two high

8 Exposure controls/personal protection

Control parameters

CAS	Common Name	IDHL mg / m ³	TWA mg / m ³	STEL mg / m ³	CEIL mg / m ³
10043-35-3	Boric acid	N.A.	N.A.	N.A.	N.A.
141-43-5	Ethanolamine	75	7.5	15	N.A.

Appropriate engineering controls

No special ventilation required if product is used properly
Mix and use outside or in well ventilated areas

People that work around or with the product should wear the proper P.P.E.

Eye wash stations or eye wash showers should be available

Individual protection measures

- **EYE PROTECTION:** Employee should wear splash-proof or dust-resistant safety goggles to prevent eye contact with this substance.
- **EMERGENCY EYE WASH:** Where there is a possibility that eyes may be exposed to this substance; the employer should provide an eye wash fountain within the immediate work area for emergency use.
- **CLOTHING:** Employee should wear appropriate protective clothing and equipment to prevent repeated or prolonged skin contact with this substance.
- **GLOVES:** Employee should wear appropriate protective gloves to prevent contact with this substance.
- **VENTILATION:** Use only outside or in well ventilated areas
- **RESPIRATOR:** No special respiratory protection equipment is recommended under normal conditions of use. If circumstances warrant protection, an approved organic vapour respirator can be worn to reduce exposure to product vapours.

9 Physical and chemical properties

Physical and chemical properties

Physical state :	Liquid
Appearance :	Clear.
Colour :	Blue
Odour :	No significant odour
Odour threshold:	No data available
pH :	7.9
Relative evaporation rate	No data available
Relative evaporation rate (ether=1):	No data available
Melting point:	No data available
Freezing point:	< 0 °C
Boiling point:	> 100 °C
Flash point:	Non flammable
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Flammability (solid, gas):	Not applicable
Vapour pressure at 20 °C:	<17.535 mm Hg
Vapour density:	< 1 (air = 1)
Relative density:	No data available
Density :	1.33 kg/l
Solubility:	Water: Soluble

10 Stability and reactivity

Reactivity

As such, not reactive under normal storage and handling conditions.

Chemical stability

Stable under normal storage, handling and mixing conditions

Possibility of hazardous reactions

None known under normal conditions of use

Conditions to avoid

Protect from freezing

Incompatible materials

None known

Hazardous decomposition products

No known dangerous decomposition products

If heated to the point of transformation or decomposition:

Carbon monoxide, Carbon dioxide, Nitrous Oxide

11 Toxicological information**Toxicological (health) effects**

No	CAS	Common name	LD oral	LD skin	LD skin	LC gases	LC vapours	LC dust-mist
1	10043-35-3	Boric acid	2660	N.A.	>2000	N.A.	N.A.	>5.0
2	141-43-5	Ethanolamine	1720	1018	1018	NA	11	>1.95

Information on the likely routes of exposure

Ingestion.

Skin and eyes contact.

Symptoms related to the physical, chemical and toxicological characteristics

The symptoms are flu-like: discomfort, joint pain, fever, cough and shortness of breath. We can observe headaches, nausea, vomiting and dizziness.

Delayed and immediate effects and also chronic effects from short and long term exposure

Can cause depression of the central nervous system. Following repeated exposure, damage to the pancreas may occur. Following repeated exposure, liver and kidney damage may occur. May cause hair loss. If ingested in large quantities may cause gastro-intestinal disorders. Studies suggest the possibility of an increase in congenital malformations.

Numerical measures of toxicity (such as acute toxicity estimates)

C.A.S.	NAME	IAR C	ACGI H	Mutagenicity	Effect on reproduction
10043-35-3	boric acid	4	A5	The data do not allow for an adequate assessment of mutagenic effects..	It has an embryotoxic and / or fetotoxic in animals. Teratogenic effects shown in animals or suspected in humans.
141-43-5	monoethanolamine	4	A5	The data do not allow for an adequate assessment of mutagenic effects.	The data do not allow for an adequate evaluation of the effects on reproduction. The data do not allow for an adequate evaluation of the effects on development.

12 Ecological information

Toxicity

C.A.S.	NAME	Persistence	Bio-accumulation	ToxicITY
10043-35-3	Boric acid	yes	no	no
141-43-5	monoethanolamine	no	no	no

Persistence and degradability

In agriculture, the use of this mixture in normal conditions is non persistent.

Bioaccumulative potential

In agriculture, the use of this mixture in normal conditions will not cause bio-accumulation.

Mobility in soil

No specific data available for this mixture but agronomic knowledge confirms that:

- the nitrogen (expressed as N) component of this mixture can be mobile in the soil;
- the phosphorous (expressed as P₂O₅) component of this mixture is not mobile in the soil;
- the potassium (expressed as K₂O) component of this mixture can be moderately mobile in the soil.

Other adverse effects

May release ammonium ions that are toxic to fish.

At extremely high concentrations, this may be hazardous to fish or other marine organisms.

13 Disposal considerations

Disposal methods

The generation of waste should be avoided or minimized wherever possible.

Triple rinse all containers and dispose in accordance with all regional / provincial / federal regulatory requirements or through the Clean Farms Empty Container Recycling Program

Eliminate any surplus and non recyclable products through authorized operators

Take care when handling empty containers that have not been rinsed and cleaned.

14 Transport information

UN Number

Not applicable

UN Proper Shipping Name

Not applicable

Transport hazard class(es)

Not applicable

15 Regulatory information

Safety, health and environmental regulations specific for the product in question

Carcinogen (ACGIH, IARC, OSHA or NTP):

Most of the ingredients used to manufacture this mixture are not classified as carcinogenic by ACGIH, IARC, OSHA or NTP. One ingredient is classified "possible carcinogen for humans" (IARC – 2B)

Inventories (U.S. Toxic Substances Control Act):

No data available

Air (U.S. Clean Air Act):

This product does not contain any hazardous air pollutants (HAP) as defined by the U.S. Clean Air Act Section 12 (40 CFR 61)

16 Other information**Other information**

As per Workplace Health & Safety regulations in place, this SDS should be provided to all who will use, handle, store, transport or otherwise be exposed to this product. The user must determine the appropriate measures that need to be implemented for the safe use and handling of this product in the context of the user's operations.

This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in this data sheet which we received from sources outside our company. We believe that information to be correct but cannot guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as a permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either express or implied.