1 Identification

GHS Product Identifier

Product name: **Oligo® Fe 2.0**

Product form: Liquid mixture

Recommended use of the chemical and restriction on use

Liquid and foliar fertilizer

Supplier's details

Axter Agroscience Inc.
895 chemin Benoit
Mont St-Hilaire,Québec
Canada J3H 0L7

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

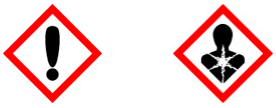
2 Hazard(s) identification

Classification of the substance or mixture

Classification: GHS-CA

GHS label elements

Warning



Causes skin irritation

Causes serious eye irritation

Suspected of damaging the unborn child.

Suspected of damaging fertility.

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

Wash hands thoroughly after handling.

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

IF ON SKIN: Wash with plenty of soap and water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Dispose of contents/container to the Clean Farms Empty Contianer recycling Program

Other hazards which do not result in classification

No additional information available

3 Composition/information on ingredients

Description	CAS Number	EINECS Number	%	Note
Iron(II) sulfate heptahydrate	7782-63-0		21 - 28	

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
This product could be irritating to skin, eyes, respiratory and digestive tracts.
The severity of symptoms can vary depending on the exposure conditions (contact time, product concentration, etc.).

Effects (acute or delayed):
If ingested in large quantities may cause gastro-intestinal disorders. May cause liver damage.
At high dose dilation of pupils can be observed.
May cause at high concentration, breathing difficulty, loss of consciousness, deep coma and possibily death.
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 Monoxyde (CO), Carbon Dioxyde (CO2), Nitrous Oxyde
- A prolongued 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 surrondings
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 environent.
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 theirs 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 / m³	TWA mg / m³	STEL mg / m³	CEIL mg / m³
7782-63-0	Iron(II) sulfate heptahydrate	N.A.	1	N.A.	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 :	Brown
Odour :	No significant odour
Odour threshold:	No data available
pH :	4.8
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 :	1.17 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

Strong oxidizing agents

Hazardous decomposition products

No known dangerous decomposition products
If heated to the point of transformation or decomposition:
Carbon monoxyde, Carbon dioxide, Nitrous Oxyde

11 Toxicological information

Toxicological (health) effects

No	CAS	Common name	LD oral	LD skin	LD skin	LC gases	LC vapours	LC dust-mist
1	7782-63-0	Iron(II) sulfate heptahydrate	1520	> 5000	> 5000	NA	NA	> 5.00

Information on the likely routes of exposure

This product is absorbed by the digestive tract.

Symptoms related to the physical, chemical and toxicological characteristics

This product could be irritating to skin, eyes, respiratory and digestive tracts.
The severity of symptoms can vary depending on the exposure conditions (contact time, product concentration, etc.).

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

If ingested in large quantities may cause gastro-intestinal disorders. May cause liver damage.
At high dose dilation of pupils can be observed.
May cause at high concentration, breathing difficulty, loss of consciousness, deep coma and possibily death.
Studies suggest the possibility of an increase in congenital malformations.

Numerical measures of toxicity (such as acute toxicity estimates)

C.A.S.	NAME	IARC	ACGIH	Mutagenicity	Effect on reproduction
7782-63-0	Iron(II) sulfate heptahydrate	NA	NA	The data does not allow for an adequate assessment of mutagenic effects.	NA

12 Ecological information

Toxicity

C.A.S.	NAME	Persistance	Bio-accumulation	ToxiciTY
7782-63-0	Iron(II) sulfate heptahydrate	NA	NA	NA

Persistence and degradability

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

Bioaccumulative potential

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

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 moderatly mobile in the soil.

Other adverse effects

May release ammonium ions that are toxic to fish.
At extrememly high concentrations, this may be hazardous to fish or othe 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 rinced 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 classed as carcinogenic by ACGIH, IARC, OSHA or NTP.
One ingredient is classed "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 tne 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 of implied.