

1 Identification

GHS Product Identifier

Product name: Agro-Ammo

Product form: Liquid mixture

Recommended use of the chemical and restriction on use

Liquid and foliar fertilizer.
Water treatment for increased efficacy of tank mix.

Supplier's details

Agro-100 Ltée
990 Chemin des Prairies
Joliette, Québec
Canada, J6E 0L4

Contact no. 450-759-8887

Hours of operation: 8h - 16h Monday to Friday

Emergency phone number

Emergency no. 450-759-8887

2 Hazard(s) identification

Classification of the substance or mixture

Classification: GHS-CA

GHS label elements

Toxic to aquatic life

Avoid release to the environment.

Store in a well-ventilated place.

Dispose of contents/container to the Clean Farms Recycling Program.

Other hazards which do not result in classification

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

3 Composition/information on ingredients

Description	CAS Number	EINECS Number	%	Note
ammonium sulfate	7783-20-2		30 - 60	
water	7732-18-5		40 - 70	

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

General:	Not expected to present a significant hazard under conditions of normal use.
Inhalation:	Prolonged exposure may cause irritation.
Skin Contact:	Prolonged exposure may cause skin irritation.
Eye Contact:	May cause slight irritation to eyes.
Ingestion:	Ingestion may cause adverse effects.
Symptoms:	None expected under normal conditions of use.

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

NOTE TO PHYSICIAN:	No specific treatment. Treat symptomatically. Contact Poison Center if large quantities are ingested.
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5 Fire-fighting measures

Suitable extinguishing media

Extinguishing agent Use agent suitable for the type of surrounding fire;
Foam, chemical powder, CO₂, water in a spray, sand, water mist.

Caution: Avoid excessive water to minimize runoff into the environment.

Specific hazards arising from the chemical

Fire Hazard	No specific danger. In case of fire, dangerous decomposition products can be formed. At temperatures of 235 °C (455 °F) ammonia can be emitted. Sulfur oxides. A prolonged exposure to high temperatures may cause the containers to fail.
Explosion Hazard	None known under normal conditions.
Reactivity Hazard	None known under normal conditions.

Special protective actions for fire-fighters

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

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.
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 $> 5^{\circ}\text{C}$.
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
7783-20-2	Ammonium Sulfate	N.A.	N.A.	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:

If there is a possibility of eye exposure, the employer should provide an eye wash fountain within the immediate work area.

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 :	Faint yellow to amber colored
Odour :	No significant odour
Odour threshold:	No data available
pH :	3 - 7
Relative evaporation rate	No data available
Relative evaporation rate (ether=1):	No data available
Melting point:	No data available
Freezing point:	- 12°C
Boiling point:	Not available
Flash point:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Flammability (solid, gas):	Not available
Vapour pressure at 20 °C:	Not available
Vapour density:	Not available
Relative density:	Not available
Density :	1.216 - 1.228 kg/l
Solubility:	Not available

10 Stability and reactivity

Reactivity

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

Chemical stability

As such, stable under normal storage and handling conditions.

Possibility of hazardous reactions

As such, none known under normal storage and handling conditions.

Conditions to avoid

Protect from freezing.
Extremely high or low temperatures and incompatible materials.

Incompatible materials

Alkalis, alkalizing substances, nitrites and alkaline substances, oxidizers.

Hazardous decomposition products

As such, no known dangerous decomposition products.

11 Toxicological information

Toxicological (health) effects

Acute toxicity (oral) :	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) :	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation) :	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)
Serious eye damage/irritation :	Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitization:	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)

Information on the likely routes of exposure

Inhalation. Ingestion. Skin and eyes contact.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	Prolonged exposure may cause irritation.
Skin Contact:	Prolonged exposure may cause skin irritation.
Eye Contact:	May cause slight irritation to eyes.
Ingestion:	Ingestion may cause adverse effects.

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

Chronic Symptoms: None expected under normal conditions of use.

Numerical measures of toxicity (such as acute toxicity estimates)

C.A.S.	NAME	LD50
7783-20-2	Ammonium Sulfate	> 2000 mg/kg

12 Ecological information

Toxicity

C.A.S.	NAME	LC 50 Fish 1	EC 50 Daphnia	LC 50 Fish 2
7783-20-2	Ammonium Sulfate	5.2 (5.2 - 8.2) mg/l Exposure time: 96 h Species:	14 mg/l Exposure time: 48 h Species:	32.2 (32.2 - 41.9) mg/l Exposure time: 96 h Species:

		Oncorhynchus mykiss (static)	Species. Daphnia magna	Oncorhynchus mykiss (flow-through]

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;

Other adverse effects

May release ammonium ions that are toxic to fish.

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.

Packing group, if applicable

15 Regulatory information

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

Canadian Regulations

Ammonium sulfate (7783-20-2)
Listed on the Canadian DSL (Domestic Substances List).
Not listed on the Canadian NDSL (Non-Domestic Substances List).

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

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