Safety Data Sheet

SoyAgro OP 6-0-0 + 3%S + micros

1. Identification

Product identifier:	SoyAgro OP 6-0-0 + 3%S + micros
Other means of identification:	SoyAgro OP
Recommended use:	Liquid fertilizer
Restriction on use:	Respect application recommendations and suggested rates
Supplier Name:	Agro-100 Ltée 990 Chemin des Prairies Joliette, Québec Canada, J6E 0L4
Telephone:	(450) 759-8887
Emergency tel. number:	(450) 759-8887
Available hours:	8h00 - 16h00 Monday to Friday

2. Hazard identification

Signal word: DANGER

Product classification:

Reproductive toxicity - Category 1B. Specific target organ toxicity – repeated exposure - Category 1.

Serious eye irritation - Category 2A.

Hazard statement(s):

H360 - May damage fertility or the unborn child.
H372 - Causes damage to organs (brain) through prolonged or repeated exposure.
H319 - Causes serious eye irritation.

Precautionary statement(s)

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist, vapors and spray. Wash hands thoroughly after handling and any other part of the body that may have been exposed to the product. Do not eat, drink or smoke when using this product. Wear protective gloves, protective clothing, eye and face protection.

Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice. Get medical advice if you feel unwell or IF exposed or concerned.

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with local, regional, national and/or international regulations in force.

Other hazards: Poison by intravenous route. Moderately toxic by intraperitoneal and subcutaneous routes.

See toxicological information, section 11

3. Composition / Information on ingredients

No	CAS No :	Common name and synonyms	Concentration % (w/w)
1	1336-21-6	Ammonium hydroxide. Ammonia, 20 to 30% aqueous solution	22.50
2	10034-96-5	Manganese(II) sulfate hydrate	5.00 - 10.00 *
3	141-43-5	2-Aminoethanol. Monoethanolamine	1.98
4	10043-35-3	Boric acid	1.00 - 5.00 *

* The actual concentration range is withheld as a trade secret.

4. First-aid measures

If swallowed, irritation, any type of overexposure or symptoms of overexposure occur during use of the product or persists after use, immediately contact a POISON CENTER, an EMERGENCY ROOM or a PHYSICIAN; ensure that the product safety data sheet is available.

Eye contact: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irriation persists, get medical attention.

Skin contact: Remove contaminated clothing immediately. Wash the skin with soap and water. Thoroughly wet contaminated clothing. If irritation, consult a doctor.

Inhalation: Move exposed person to fresh air. Keep this person warm and lying down. Loosen tight clothing such as a collar, tie, belt or waistband. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention immediately.

Ingestion: If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do not induce vomiting unless instructed by medical personnel.

Symptoms: Red eyes, itching, blurred vision and tearing. Decreased concentration and memory, sleep disturbances, irritability and muscular aches.

Effects (acute or delayed): This product is a serious irritant that may cause reversible damages to the cornea. Studies suggest the possibility of an increase in congenital malformations. Following repeated exposure paresthesia, speech disorder (monotone, stuttering) and gait (loss of balance, difficulty walking backwards), slight tremor, difficulty in writing, decreased manual dexterity, frozen facies, emotional instability, memory and judgment disorders, slow and clumsy movements, uncontrolled laughter and crying. Several studies in workers show that prolonged exposure to high concentrations (usually> 5 mg / m^3) of manganese in the air, or its inorganic compounds, causes manganism. Manganese is a neurological syndrome associated with the accumulation of manganese in the brain. Its development is progressive and disabling.

Immediate medical attention and special treatment: No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Suitable extinguishing media: Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media: Jets of water can facilitate the spread of fire.

Specific hazards arising from the hazardous product: May release dangerous fumes.

Hazardous combustion products: Carbon monoxide and dioxide. Ammonia. Nitrogen oxides. Sulfur oxides. Acetone. Oxides of manganese. Zinc oxide fumes. Boron oxide.

Special protective equipment and precautions for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions: No action shall be taken involving any personal risk or if you do not have suitable training or protection. Evacuate surrounding areas. Do not touch or walk through spilled material. Shut off all heating and ignition sources. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Protective equipment and emergency procedures: Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution. Use inert absorbent or retention tubes in the event of a large spill.

Methods and materials for containment and cleaning up: Stop leak if without risk. Move containers from spill area. Contain leaks and pick up with non-combustible absorbent materials such as sand, earth or vermiculite. Then, place in an appropriate waste disposal container according to local regulations. Dispose of via a licensed waste disposal contractor.

7. Handling and storage

Precautions for safe handling: Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Avoid exposure - obtain special instructions before use. Avoid contact with eyes, skin and clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Conditions for safe storage: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Incompatibility: Strong acids and strong oxidizing agents. Reductive agents. Halogenated products. Alkali metals. Calcium. Aluminum, magnesium, tin, zinc, copper, silver, nickel and their alloys.

8. Exposure Controls/ Personal protection

Control parameters:

Occupational exposure limit values:

Alberta

No	CAS No :	Common name and synonyms	8-hour occupational exposure limit (TWA)		15-minute occupational exposure limit (STEL)		Ceiling occupational exposure limit	
			ppm	mg/m^3	ppm	mg/m^3	ppm	mg/m^3
1	1336-21-6	Ammonium hydroxide. Ammonia, 20 to 30% aqueous solution	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
2	10034-96-5	Manganese(II) sulfate hydrate	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
3	141-43-5	2-Aminoethanol. Monoethanolamine	3	7.5	6	15	Not listed	Not listed
4	10043-35-3	Boric acid	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

British-Columbia

No	CAS No :	Common name and synonyms	8-hour occupational exposure limit (TWA)		15-minute occupational exposure limit (STEL)		Ceiling occupational exposure limit	
			ppm	mg/m^3	ppm	mg/m^3	ppm	mg/m^3
1	1336-21-6	Ammonium hydroxide. Ammonia, 20 to 30% aqueous solution	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
2	10034-96-5	Manganese(II) sulfate hydrate	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
3	141-43-5	2-Aminoethanol. Monoethanolamine	3	Not listed	6	Not listed	Not listed	Not listed
4	10043-35-3	Boric acid	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Ontario

No	CAS No :	Common name and synonyms	8-hour occupational exposure limit (TWA)		15-minute occupational exposure limit (STEL)		Ceiling occupational exposure limit	
			ppm	mg/m^3	ppm	mg/m^3	ppm	mg/m^3
1	1336-21-6	Ammonium hydroxide. Ammonia, 20 to 30% aqueous solution	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
2	10034-96-5	Manganese(II) sulfate hydrate	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
3	141-43-5	2-Aminoethanol. Monoethanolamine	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
4	10043-35-3	Boric acid	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Quebec

No	CAS No :	Common name and synonyms	8-hour occupational exposure limit (TWA)		15-minute occupational exposure limit (STEL)		Ceiling occupational exposure limit	
			ppm	mg/m^3	ppm	mg/m^3	ppm	mg/m^3
1	1336-21-6	Ammonium hydroxide. Ammonia, 20 to 30% aqueous solution	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
2	10034-96-5	Manganese(II) sulfate hydrate	Not listed	0.2 inh, 0.05 resp	Not listed	Not listed	Not listed	Not listed
3	141-43-5	2-Aminoethanol. Monoethanolamine	3	7.5	6	15	Not listed	Not listed
4	10043-35-3	Boric acid	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Saskatchewan

No	CAS No :	Common name and synonyms	8-hour occupational exposure limit (TWA)		15-minute occupational exposure limit (STEL)		Ceiling occupational exposure limit	
			ppm	mg/m^3	ppm	mg/m^3	ppm	mg/m^3
1	1336-21-6	Ammonium hydroxide. Ammonia, 20 to 30% aqueous solution	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
2	10034-96-5	Manganese(II) sulfate hydrate	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
3	141-43-5	2-Aminoethanol. Monoethanolamine	3	Not listed	6	Not listed	Not listed	Not listed
4	10043-35-3	Boric acid	Not listed	2	Not listed	6	Not listed	Not listed

United States

No	CAS No :	Common name and synonyms	IDLH NIOSH	Regulatory Limits			Recommended Limits	
				OSHA PEL		California / OSHA PEL	NIOSH REL	ACGIH ® 2025 TLV ®
				ppm	mg/m^3	8-hour TWA (ST) STEL (C) Ceiling	Up to 10-hour TWA (ST) STEL (C) Ceiling	8-hour TWA (ST) STEL (C) Ceiling
1	1336-21-6	Ammonium hydroxide. Ammonia, 20 to 30% aqueous solution	204	Not listed	Not listed	Not listed	Not listed	Not listed
2	10034-96-5	Manganese(II) sulfate hydrate	500	Not listed	Not listed	Not listed	Not listed	Not listed
3	141-43-5	2-Aminoethanol. Monoethanolamine	74.94	3	6	3 ppm (ST) 6 ppm	3 ppm (ST) 6 ppm	3 ppm (ST) 6 ppm
4	10043-35-3	Boric acid	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

IDLH: Immediately Dangerous to Life or Health Concentrations
NIOSH: National Institute for Occupational Safety and Health
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limits
California / OSHA: California Division of Occupational Safety and Health
REL: Recommended Exposure Limits
ACGIH ®: American Conference of Governmental Industrial Hygienists
TLV ®: Threshold Limit Values

Appropriate engineering controls: When a worker is exposed to a substance identified as having a demonstrated or suspected carcinogenic, mutagenic and/or reprotoxic effect on humans, exposure must be kept to a minimum, even when it remains within the expected standards regardless of the duration of exposure. Recirculation must be prohibited. Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eyes: DO NOT WEAR CONTACT LENSES. Wear anti-splash safety goggles.

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties.

Respiratory: If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Others: Wear protective clothing with long sleeves and appropriate safety shoes at all times.

9. Physical and chemical properties

Physical state: Liquid
Colour: Dark Brown
Odour: Odorless
Melting/Freezing point: < 0 °C (32 °F)
Initial boiling point/boiling range: > 100 °C (212 °F)
Flammability: Not applicable
Lower flammable/explosive limit: Not applicable
Upper flammable/explosive limit: Not applicable
Flash point: Not applicable
Auto-ignition temperature: Not applicable
Decomposition temperature: < 100 °C (212 °F)
pH: 8.83
Kinematic viscosity: < 20.5 mm^2/s (at 40 °C)
Solubility (in water): Miscible
Partition coefficient – n-octanol/water (Log Kow): < 1
Vapour pressure: > 17.535 mm Hg at 20 °C
Density and relative density: 1.28 kg/L at 20 °C (water = 1)
Relative vapour density: > 1 (air = 1)
Particle characteristics: Not applicable

10. Stability and reactivity

Reactivity: Stable under recommended conditions of storage and handling.

Chemical stability: The product is chemically stable under normal conditions of use. This product is unstable under the following conditions: The product begins to decompose when heated to temperatures below 100°C.

Possibility of hazardous reactions: No dangerous or polymerization reactions will not occur under normal conditions of use. May release toxic and corrosive products when heated.

Conditions to avoid: Keep away from incompatible products (see section 7). Some risk may be expected of corrosive and toxic decomposition products. To avoid thermal decomposition, do not overheat.

Incompatible materials: This product may attack certain metals.

Hazardous decomposition products: Carbon monoxide and dioxide. Nitrogen oxides. Sulfur oxides. Oxides of manganese. Boron oxide.

11. Toxicological information

	Oral	Dermal	Inhalation gases	Inhalation vapours	Inhalation dusts/mists
$ATE_{product}$	3673.13 mg/kg	5251.37 mg/kg	N/A	> 20 mg/l	6.86 mg/l

No	CAS No :	Common name and synonyms	LD_{50} oral mg/kg	LD_{50} skin mg/kg	LC_{50} inhalation ppmV 4h - gases	LC_{50} inhalation mg/l 4h - vapours	LC_{50} inhalation mg/l 4h - dusts-mist
1	1336-21-6	Ammonium hydroxide. Ammonia, 20 to 30% aqueous solution	> 2000	> 5000	N/A	> 20.00	> 5.00
2	10034-96-5	Manganese(II) sulfate hydrate	2150	> 5000	N/A	N/A	> 5.00
3	141-43-5	2-Aminoethanol. Monoethanolamine	1089	1018	N/A	> 20.00	> 5.00
4	10043-35-3	Boric acid	3765	> 2000	N/A	N/A	> 5.00

Routes of exposure: This product is absorbed through the skin and by the digestive tract.

Symptoms: Red eyes, itching, blurred vision and tearing. Decreased concentration and memory, sleep disturbances, irritability and muscular aches.

Delayed and immediate effects: This product is a serious irritant that may cause reversible damages to the cornea. Studies suggest the possibility of an increase in congenital malformations. Following repeated exposure paresthesia, speech disorder (monotone, stuttering) and gait (loss of balance, difficulty walking backwards), slight tremor, difficulty in writing, decreased manual dexterity, frozen facies, emotional instability, memory and judgment disorders, slow and clumsy movements, uncontrolled laughter and crying. Several studies in workers show that prolonged exposure to high concentrations (usually> 5 mg / m^3) of manganese in the air, or its inorganic compounds, causes manganism. Manganese is a neurological syndrome associated with the accumulation of manganese in the brain. Its development is progressive and disabling.

Aspiration hazard	N/A
Skin corrosion - Skin irritation	N/A
Serious eye damage - Serious eye irritation - Eye irritation	Yes
Skin sensitization	N/A
Respiratory sensitization	N/A
Specific target organ toxicity – single exposure	N/A
Specific target organ toxicity – single exposure Category 3 Narcotic effects	N/A
Specific target organ toxicity – single exposure Category 3 Respiratory tract irritation	N/A
Specific target organ toxicity – repeated exposure	Yes

No	CAS No :	Common name and synonyms	IARC	ACGIH	Mutagenicity	Effect on reproduction - Fertility	Effect on reproduction - Development
1	1336-21-6	Ammonium hydroxide. Ammonia, 20 to 30% aqueous solution	Not listed	Not listed	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 fertility.	The data do not allow for an adequate evaluation of the effects on development.
2	10034-96-5	Manganese(II) sulfate hydrate	Not listed	A4	No effects shown.	The data do not allow for an adequate evaluation of the effects on fertility.	The data do not allow for an adequate evaluation of the effects on development.
3	141-43-5	2-Aminoethanol. Monoethanolamine	Not listed	Not listed	No effects shown.	The data do not allow for an adequate evaluation of the effects on fertility.	The data do not allow for an adequate evaluation of the effects on development.
4	10043-35-3	Boric acid	Not listed	Not listed	The data do not allow for an adequate assessment of mutagenic effects.	May impair fertility.	May have harmful effects for the child during pregnancy.

Cancer classification under IARC (International Agency for Research on Cancer)

Group 1: carcinogenic to humans.
Group 2A: probably carcinogenic to humans.
Group 2B: possibly carcinogenic to humans.
Group 3: not classifiable as to its carcinogenicity to humans.
Group 4: probably not carcinogenic to humans.

Cancer classification under ACGIH (American Conference of Governmental Industrial Hygienists)

Group A1: confirmed human carcinogen.
Group A2: suspected human carcinogen.
Group A3: confirmed animal carcinogen with unknown relevance to humans.
Group A4: not classifiable as a human carcinogen.
Group A5: not suspected as a human carcinogen.

12. Ecological information

Ecotoxicity

No	CAS No :	Common name and synonyms	%	Aquatic Ecotoxicity short term	Aquatic Ecotoxicity long term	Terrestrial Ecotoxicity
1	1336-21-6	Ammonium hydroxide. Ammonia, 20 to 30% aqueous solution	22.50	Very toxic to aquatic life.	Toxic to aquatic life with long lasting effects.	Harmful to the environment.
2	10034-96-5	Manganese(II) sulfate hydrate	5.00 - 10.00	Not available.	Toxic to aquatic life with long lasting effects.	Harmful to the environment.
3	141-43-5	2-Aminoethanol. Monoethanolamine	1.98	No known adverse effect to aquatic life.	No known adverse effect to aquatic life.	No known adverse effect to the environment.
4	10043-35-3	Boric acid	1.00 - 5.00	No known adverse effect to aquatic life.	No known adverse effect to aquatic life.	No known adverse effect to the environment.

Persistence and degradability. Bioaccumulative potential. Other adverse effects

No	CAS No :	Common name and synonyms	%	Persistent	Bio-accumulation	Aquatic ecotoxicity
1	1336-21-6	Ammonium hydroxide. Ammonia, 20 to 30% aqueous solution	22.50	Yes	No	Yes
2	10034-96-5	Manganese(II) sulfate hydrate	5.00 - 10.00	N/A	N/A	N/A
3	141-43-5	2-Aminoethanol. Monoethanolamine	1.98	No	No	No
4	10043-35-3	Boric acid	1.00 - 5.00	Yes	No	No

Degradability: N/A

Mobility in soil: N/A

13. Disposal considerations

Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

14. Transport information

	TDG	DOT	IMDG	IATA
UN Number				
Proper shipping name	Not regulated	Not regulated	Not regulated	Not regulated
Transport hazard class(es)				
Packing group				

Canada - ERAP

Not applicable

United States - Reportable Quantities (RQ)

No	CAS No :	Common name and synonyms	RQ lbs (kg)
1	1336-21-6	Ammonium hydroxide. Ammonia, 20 to 30% aqueous solution	1000 (454)

Transport in bulk (according to Annex II of the International Convention for the Prevention of Pollution From Ships, 1973, as modified by the Protocol of 1978 (MARPOL 73/78), and the International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (IBC Code)):
N/A

Marine pollutant: No

Exemption for limited quantity: Not applicable

Other exemptions: Not applicable

Special precautions: Not applicable

15. Regulatory information

Canada

No	CAS No :	Common name and synonyms	%	DSL	NDSL	NPRI
1	1336-21-6	Ammonium hydroxide. Ammonia, 20 to 30% aqueous solution	22.50	X		
2	10034-96-5	Manganese(II) sulfate hydrate	5.00 - 10.00	X		
3	141-43-5	2-Aminoethanol. Monoethanolamine	1.98	X		X
4	10043-35-3	Boric acid	1.00 - 5.00	X		

United States

No	CAS No :	Common name and synonyms	%	TSCA	PROP-65	RTK
1	1336-21-6	Ammonium hydroxide. Ammonia, 20 to 30% aqueous solution	22.50	X		X
2	10034-96-5	Manganese(II) sulfate hydrate	5.00 - 10.00	X		
3	141-43-5	2-Aminoethanol. Monoethanolamine	1.98	X		X
4	10043-35-3	Boric acid	1.00 - 5.00	X		

The classification of the product and the SDS were developed in accordance with HPR 2015 (rev. 2022) and HCS 2024.

16. Other information

Date: 2025-04-22

Version: 1

Notice to reader: The manufacturer hereby declares that the information disclosed herein have been based on governmental sites and/or raw material supplier's. The manufacturer has no control over the nature and content of such information. The manufacturer fully reproduces all the information it holds on the constituent of the product, at the time it is manufactured. The manufacturer does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. By this data sheet, the manufacturer hereby discloses all the potential dangers it has knowledge of and which might be related to the using or manipulation of the product in order to allow the proper care to be brought and use with regard to the product. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist and notification is hereby given to the user. Notice is hereby given that injury can derive therefrom if the foregoing is not respected. The manufacturer assumes no responsibility for personal and/or material damage, lost or injury of whichever nature caused or which may occur following the wrongful, inappropriate, negligent or abusive use or handling of the product or from not having read the herein contained information.