Safety Data Sheet

Agro B OP

1. Identification

Product identifier:	Agro B OP
Product code:	------
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
Recommended use:	Liquid nutrient solution for foliar application
Restriction on use:	Respect application recommandations and suggested rates

2. Hazard identification

Signal word: DANGER

Product classification:

Reproductive toxicity - Category 1B.

Skin irritation - Category 2. Serious eye irritation - Category 2A.

Hazard statement(s):

H360 - May damage fertility or the unborn child.
H315 - Causes skin irritation.
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. Wear protective gloves, protective clothing, eye and face protection. Wash hands thoroughly after handling and any other part of the body that may have been exposed to the product.

Response: IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice. 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. IF exposed or concerned: Get medical advice. Take off contaminated clothing and wash it before reuse.

Storage: Store locked up.

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

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

See toxicological information, section 11

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3. Composition/ Information on ingredients

No	CAS No :	Common name and synonyms	Concentration % (w/w)
1	10043-35-3	Boric acid	30.00 - 60.00
2	141-43-5	2-Aminoethanol. Monoethanolamine	10.00 - 30.00
3	69-72-7	Salicylic acid. 2-Hydroxybenzoic acid	0.25

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. Get medical attention as soon as possible.

Skin contact: Remove contaminated clothing immediately. Wash the skin with soap and water. Thoroughly wet contaminated clothing. If irritation persists, 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: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Symptoms: This product is irritating to skin, eyes, respiratory and digestive tracts. The severity of symptoms can vary depending on the exposure conditions (contact time, product concentration, etc.). We can observe headaches, nausea, vomiting and dizziness.

Effects (acute or delayed): If ingested in large quantities may cause gastro-intestinal disorders. Following repeated exposure, liver and kidney damage may occur. May cause hair loss. Studies suggest the possibility of an increase in congenital malformations.

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: No specific hazard.

Hazardous combustion products: Carbon monoxide and dioxide. Nitrogen oxides. Phosphorus 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.

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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 oxidizing agents. Acids.

8. Exposure Controls/ Personal protection

Alberta

No	CAS No :	Common name and synonyms	8-hour occupational exposure limit (TWA)		15-minute occupational exposure limit (STEL)		Ceiling ccupational exposure limit	
			ppm	mg/m^3	ppm	mg/m^3	ppm	mg/m^3
1	10043-35-3	Boric acid	N/A	N/A	N/A	N/A	N/A	N/A
2	141-43-5	2-Aminoethanol. Monoethanolamine	3	7.5	6	15	N/A	N/A
3	69-72-7	Salicylic acid. 2-Hydroxybenzoic acid	N/A	N/A	N/A	N/A	N/A	N/A

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British-Columbia

No	CAS No :	Common name and synonyms	8-hour occupational exposure limit (TWA)		15-minute occupational exposure limit (STEL)		Ceiling ccupational exposure limit	
			ppm	mg/m^3	ppm	mg/m^3	ppm	mg/m^3
1	10043-35-3	Boric acid	N/A	N/A	N/A	N/A	N/A	N/A
2	141-43-5	2-Aminoethanol. Monoethanolamine	3	N/A	6	N/A	N/A	N/A
3	69-72-7	Salicylic acid. 2-Hydroxybenzoic acid	N/A	N/A	N/A	N/A	N/A	N/A

Ontario

No	CAS No :	Common name and synonyms	8-hour occupational exposure limit (TWA)		15-minute occupational exposure limit (STEL)		Ceiling ccupational exposure limit	
			ppm	mg/m^3	ppm	mg/m^3	ppm	mg/m^3
1	10043-35-3	Boric acid	N/A	N/A	N/A	N/A	N/A	N/A
2	141-43-5	2-Aminoethanol. Monoethanolamine	N/A	N/A	N/A	N/A	N/A	N/A
3	69-72-7	Salicylic acid. 2-Hydroxybenzoic acid	N/A	N/A	N/A	N/A	N/A	N/A

Quebec

No	CAS No :	Common name and synonyms	8-hour occupational exposure limit (TWA)		15-minute occupational exposure limit (STEL)		Ceiling ccupational exposure limit	
			ppm	mg/m^3	ppm	mg/m^3	ppm	mg/m^3
1	10043-35-3	Boric acid	N/A	N/A	N/A	N/A	N/A	N/A
2	141-43-5	2-Aminoethanol. Monoethanolamine	3	7.5	6	15	N/A	N/A
3	69-72-7	Salicylic acid. 2-Hydroxybenzoic acid	N/A	N/A	N/A	N/A	N/A	N/A

Saskatchewan

No	CAS No :	Common name and synonyms	8-hour occupational exposure limit (TWA)		15-minute occupational exposure limit (STEL)		Ceiling ccupational exposure limit	
			ppm	mg/m^3	ppm	mg/m^3	ppm	mg/m^3
1	10043-35-3	Boric acid	N/A	2	N/A	6	N/A	N/A
2	141-43-5	2-Aminoethanol. Monoethanolamine	3	N/A	6	N/A	N/A	N/A
3	69-72-7	Salicylic acid. 2-Hydroxybenzoic acid	N/A	N/A	N/A	N/A	N/A	N/A

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United States

No	CAS No :	Common name and synonyms	IDLH NIOSH	Regulatory Limits			Recommended Limits	
				OSHA PEL		California / OSHA PEL	NIOSH REL	ACGIH ® 2019 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	10043-35-3	Boric acid	N/A	N/A	N/A	N/A	N/A	N/A
2	141-43-5	2-Aminoethanol. Monoethanolamine	75	3	6	3 ppm (ST) 6 ppm	3 ppm (ST) 6 ppm	3 ppm (ST) 6 ppm
3	69-72-7	Salicylic acid. 2-Hydroxybenzoic acid	N/A	N/A	N/A	N/A	N/A	N/A

IDHL: 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: 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. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive 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.

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9. Physical and chemical properties

Physical state: Liquid
Colour: Dark blue
Odour: Odorless
Odour threshold: Not applicable
pH: 8,3
Melting/Freezing point: 0 °C (32 °F)
Initial boiling point/boiling range: 100 °C (212 °F)
Flash point: Not applicable
Flammability (Solid, Gas): Not applicable
Lower flammable/explosive limit: Not applicable
Upper flammable/explosive limit: Not applicable
Auto-ignition temperature: > 350 °C (662 °F)
Evaporation rate: < 0,05 (Butyl acetate = 1)
Vapour pressure: < 17,535 mm Hg at 20 °C
Vapour density: < 1 (air = 1)
Specific gravity: 1,255 kg/L at 20 °C (water = 1)
Solubility in water: Soluble
Partition coefficient – n-octanol/water (Log Kow): Not available
Decomposition temperature: Not available
Kinematic viscosity: Not available

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.

Possibility of hazardous reactions: No dangerous or polymerization reactions will not occur under normal conditions of use.

Conditions to avoid: Keep away from incompatible products (see section 7).

Incompatible materials: None known.

Hazardous decomposition products: Carbon monoxide and dioxide. Nitrogen oxides.

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11. Toxicological information

	Oral	Dermal	Inhalation gases	Inhalation vapours	Inhalation dusts/mists
ATE_{mix}	3072.17 mg/kg	5357.89 mg/kg	N/A	57.89 mg/l	> 5 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	10043-35-3	Boric acid	2660	> 2000	N/A	N/A	> 5.00
2	141-43-5	2-Aminoethanol. Monoethanolamine	1720	1018	N/A	11.00	> 1.95
3	69-72-7	Salicylic acid. 2-Hydroxybenzoic acid	400	> 5000	N/A	N/A	> 5.00

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

Symptoms: This product is irritating to skin, eyes, respiratory and digestive tracts. The severity of symptoms can vary depending on the exposure conditions (contact time, product concentration, etc.). We can observe headaches, nausea, vomiting and dizziness.

Delayed and immediate effects: If ingested in large quantities may cause gastro-intestinal disorders. Following repeated exposure, liver and kidney damage may occur. May cause hair loss. Studies suggest the possibility of an increase in congenital malformations.

Aspiration hazard	N/A
Skin corrosion - Skin irritation	Yes
Serious eye damage - Serious 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	N/A

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No	CAS No :	Common name and synonyms	IARC	ACGIH	Mutagenicity	Effect on reproduction
1	10043-35-3	Boric acid	N/A	N/A	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.
2	141-43-5	2-Aminoethanol. Monoethanolamine	N/A	N/A	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.
3	69-72-7	Salicylic acid. 2-Hydroxybenzoic acid	N/A	N/A	No effects shown.	May cause harm to the unborn child.

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.

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12. Ecological information

Ecotoxicity

No	CAS No :	Common name and synonyms	%	Aquatic Ecotoxicity short term	Aquatic Ecotoxicity long term	Terrestrial Ecotoxicity
1	10043-35-3	Boric acid	30.00 - 60.00	No known adverse effect to aquatic life.	No known adverse effect to aquatic life.	No known adverse effect to the environment.
2	141-43-5	2-Aminoethanol. Monoethanolamine	10.00 - 30.00	No known adverse effect to aquatic life.	No known adverse effect to aquatic life.	No known adverse effect to the environment.
3	69-72-7	Salicylic acid. 2-Hydroxybenzoic acid	0.25	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	10043-35-3	Boric acid	30.00 - 60.00	Yes	No	No
2	141-43-5	2-Aminoethanol. Monoethanolamine	10.00 - 30.00	No	No	No
3	69-72-7	Salicylic acid. 2-Hydroxybenzoic acid	0.25	No	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.

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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				

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	10043-35-3	Boric acid	30.00 - 60.00	X		
2	141-43-5	2-Aminoethanol. Monoethanolamine	10.00 - 30.00	X		X
3	69-72-7	Salicylic acid. 2-Hydroxybenzoic acid	0.25	X		

United States

No	CAS No :	Common name and synonyms	%	TSCA	PROP-65	RTK
1	10043-35-3	Boric acid	30.00 - 60.00	X		
2	141-43-5	2-Aminoethanol. Monoethanolamine	10.00 - 30.00	X		
3	69-72-7	Salicylic acid. 2-Hydroxybenzoic acid	0.25	X		

The customer is responsible for determining the PPE (personal protection equipment) code for this material.
The classification of the product and the SDS were developped in accordance with HPR and HazCom 2012.

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16. Other information

Date: 2021-11-29

Version: 1

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