

SECTION 1: Identification

1.1. Product identifier

Product form : Mixture
Trade name : HANDY ONE SILVA:OPY 299
Product code : A00000736
Product group : Trade product

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Lucas-Milhaupt Toronto
290 Carlingview Drive
M9W 5G1 Rexdale - Canada
T +1 (416) 675-1860
LM_SDSinfo@lucasmilhaupt.com - www.lucasmilhaupt.com

1.4. Emergency telephone number

Emergency number : CHEMTREC Within the USA and Canada: 1-800-424-9300

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA)

Flammable solids, Category 2	H228
Substances and Mixtures which, in contact with water, emit flammable gases, Category 1	H260
Corrosive to metals, Category 1	H290
Acute toxicity (oral), Category 4	H302
Skin corrosion/irritation, Category 1	H314
Skin sensitisation, category 1B	H317
Carcinogenicity, Category 2	H351
Specific target organ toxicity — Repeated exposure, Category 1	H372
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400
Combustible Dust	

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS CA labelling

Hazard pictograms (GHS CA) :



Signal word (GHS CA) : Danger

Hazard statements (GHS CA) :

May form combustible dust concentrations in air
H228 - Flammable solid.
H260 - In contact with water releases flammable gases which may ignite spontaneously.
H290 - May be corrosive to metals.
H302 - Harmful if swallowed.
H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H351 - Suspected of causing cancer.
H372 - Causes damage to organs through prolonged or repeated exposure.
H400 - Very toxic to aquatic life.

Precautionary statements (GHS CA) :

P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P223 - Do not allow contact with water.
P231+P232 - Handle under inert gas. Protect from moisture.
P234 - Keep only in original container.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting equipment.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.

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P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P302+P335+P334 - IF ON SKIN: Brush off loose particles from skin. Immerse in cool water or wrap in wet bandages.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P310 - Immediately call a POISON CENTER or doctor.
P314 - Get medical advice/attention if you feel unwell.
P321 - Specific treatment (see supplemental first aid instruction on this label)
P330 - Rinse mouth.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P363 - Wash contaminated clothing before reuse.
P370+P378 - In case of fire: Use media other than water to extinguish.
P390 - Absorb spillage to prevent material damage.
P391 - Collect spillage.
P402+P404 - Store in a dry place. Store in a closed container.
P405 - Store locked up.
P406 - Store in corrosive resistant container with a resistant inner liner.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS CA)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
Copper	C.I. 77400 / C.I. Pigment Metal 2 / Copper, elemental / CI 77400 / Copper metal / Copper, metallic / Pigment Metal 2 / Granulated copper	(CAS-No.) 7440-50-8	28 - 31.45	Aquatic Acute 1, H400
Zinc	C.I. Pigment Black 16 / C.I. Pigment Metal 6 / Zinc (metallic) / Pigment Black 16	(CAS-No.) 7440-66-6	24.8 - 28.05	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400
Silver	Silver, metallic / Silver metal / CI 77820 / Nanoscale silver / Nanosilver / Silver, metal / Silver, elemental / C.I. 77820	(CAS-No.) 7440-22-4	23.2 - 26.35	Aquatic Acute 1, H400
Potassium fluoride (K(HF2))	Potassium bifluoride / Potassium acid fluoride / Potassium hydrogen difluoride / Potassium hydrogendifluoride / Potassium hydrofluoride	(CAS-No.) 7789-29-9	3.75 - 7	Skin Corr. 1, H314 Eye Dam. 1, H318 STOT SE 3, H335
Borate(1-), tetrafluoro-, potassium	Potassium borofluoride / Potassium fluoroborate / Potassium tetrafluoroborate / Potassium fluoborate / Borate(1-), tetrafluoro-, potassium (1:1) / Potassium tetrafluoroborate(1-)	(CAS-No.) 14075-53-7	2.25 - 4	Not classified
DEIONIZED WATER	AQUA / Aqua	(CAS-No.) 7732-18-5	2.1 - 4	Not classified
Nickel	Nickel metal / Nickel, elemental / Nickel, metallic / Nickel, metal / C.I. 77775	(CAS-No.) 7440-02-0	1.4 - 1.9125	Skin Sens. 1, H317 Carc. 2, H351 STOT RE 1, H372 Aquatic Acute 1, H400
Carbonic acid, dipotassium salt	Potassium carbonate / Potash / Potassium carbonate (2:1) / Carbonic acid, potassium salt (1:2) / POTASSIUM CARBONATE / Dipotassium carbonate / Potassium carbonate, anhydrous	(CAS-No.) 584-08-7	0.3 - 1.2	Acute Tox. 4 (Oral), H302 Skin Corr. 1A, H314

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Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
Boron		(CAS-No.) 7440-42-8	0 - 0.184	Acute Tox. 4 (Oral), H302
Magnesium	Magnesium powder	(CAS-No.) 7439-95-4	0 - 0.012	Flam. Sol. 2, H228 Water-react. 1, H260 Comb. Dust
Boric acid (H3BO3)	Boric acid / Orthoboric acid / BORIC ACID / Boracic acid	(CAS-No.) 10043-35-3		Repr. 1, H360

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
- First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention. Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.
- First-aid measures after eye contact : Rinse eyes with water as a precaution.
- First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell. Rinse mouth.
- First-aid measures general : IF exposed or concerned: Get medical advice/attention. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after inhalation : May cause respiratory irritation.
- Symptoms/effects after skin contact : May cause an allergic skin reaction.

4.3. Immediate medical attention and special treatment, if necessary

- Other medical advice or treatment : Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

- Suitable extinguishing media : Dry powder. Water spray. Foam.

5.2. Unsuitable extinguishing media

- Unsuitable extinguishing media : Water.

5.3. Specific hazards arising from the hazardous product

- Fire hazard : Flammable solid. May form combustible dust concentrations in air.

5.4. Special protective equipment and precautions for fire-fighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No additional information available

6.2. Methods and materials for containment and cleaning up

- For containment : Collect spillage.
- Methods for cleaning up : Mechanically recover the product. Notify authorities if product enters sewers or public waters.
- Other information : Dispose of materials or solid residues at an authorized site.

6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Avoid dust formation. Handle under inert gas. Protect from moisture. Do not allow contact with water. Do not breathe dust/fume/gas/mist/vapours/spray.
- Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Ground/bond container and receiving equipment.

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Storage conditions : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool. Protect from sunlight. Keep away from ignition sources. Store in corrosive resistant container with a resistant inner liner. Keep only in original container. Protect from moisture. Store in a dry place. Store in a closed container.

Incompatible materials : Metals.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Boric acid (H3BO3) (10043-35-3)		
USA - ACGIH	ACGIH TWA (mg/m ³)	2 mg/m ³ (inhalable particulate matter)
USA - ACGIH	ACGIH STEL (mg/m ³)	6 mg/m ³ (inhalable particulate matter)
British Columbia	OEL STEL (mg/m ³)	6 mg/m ³ (inhalable)
British Columbia	OEL TWA (mg/m ³)	2 mg/m ³ (inhalable)
Manitoba	OEL STEL (mg/m ³)	6 mg/m ³ (inhalable particulate matter)
Manitoba	OEL TWA (mg/m ³)	2 mg/m ³ (inhalable particulate matter)
Newfoundland & Labrador	OEL STEL (mg/m ³)	6 mg/m ³ (inhalable particulate matter)
Newfoundland & Labrador	OEL TWA (mg/m ³)	2 mg/m ³ (inhalable particulate matter)
Nova Scotia	OEL STEL (mg/m ³)	6 mg/m ³ (inhalable particulate matter)
Nova Scotia	OEL TWA (mg/m ³)	2 mg/m ³ (inhalable particulate matter)
Nunavut	OEL STEL (mg/m ³)	6 mg/m ³ (inhalable fraction)
Nunavut	OEL TWA (mg/m ³)	2 mg/m ³ (inhalable fraction)
Northwest Territories	OEL STEL (mg/m ³)	6 mg/m ³ (inhalable fraction)
Northwest Territories	OEL TWA (mg/m ³)	2 mg/m ³ (inhalable fraction)
Ontario	OEL STEL (mg/m ³)	6 mg/m ³ (inhalable)
Ontario	OEL TWA (mg/m ³)	2 mg/m ³ (inhalable)
Prince Edward Island	OEL STEL (mg/m ³)	6 mg/m ³ (inhalable particulate matter)
Prince Edward Island	OEL TWA (mg/m ³)	2 mg/m ³ (inhalable particulate matter)
Saskatchewan	OEL STEL (mg/m ³)	6 mg/m ³ (inhalable fraction)
Saskatchewan	OEL TWA (mg/m ³)	2 mg/m ³ (inhalable fraction)
Copper (7440-50-8)		
USA - ACGIH	ACGIH TWA (mg/m ³)	0.2 mg/m ³ (fume)
USA - OSHA	OSHA PEL (TWA) (mg/m ³)	0.1 mg/m ³ (fume) 1 mg/m ³ (dust and mist)
Canada (Quebec)	VEMP (mg/m ³)	0.2 mg/m ³ (fume)
Alberta	OEL TWA (mg/m ³)	0.2 mg/m ³ (fume)
British Columbia	OEL TWA (mg/m ³)	1 mg/m ³ (dust and mist)
Manitoba	OEL TWA (mg/m ³)	0.2 mg/m ³ (fume)
New Brunswick	OEL TWA (mg/m ³)	0.2 mg/m ³ (fume)
Newfoundland & Labrador	OEL TWA (mg/m ³)	0.2 mg/m ³ (fume)
Nova Scotia	OEL TWA (mg/m ³)	0.2 mg/m ³ (fume)
Nunavut	OEL STEL (mg/m ³)	3 mg/m ³ (dust and mist)
Nunavut	OEL TWA (mg/m ³)	0.2 mg/m ³ (fume)
Northwest Territories	OEL STEL (mg/m ³)	3 mg/m ³ (dust and mist)
Northwest Territories	OEL TWA (mg/m ³)	0.2 mg/m ³ (fume)
Ontario	OEL TWA (mg/m ³)	0.2 mg/m ³ (fume)
Prince Edward Island	OEL TWA (mg/m ³)	0.2 mg/m ³ (fume)
Saskatchewan	OEL STEL (mg/m ³)	0.6 mg/m ³ (fume)
Saskatchewan	OEL TWA (mg/m ³)	0.2 mg/m ³ (fume)
Yukon	OEL STEL (mg/m ³)	0.2 mg/m ³ (fume)
Yukon	OEL TWA (mg/m ³)	0.2 mg/m ³ (fume)

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Nickel (7440-02-0)		
USA - ACGIH	ACGIH TWA (mg/m ³)	1.5 mg/m ³ (inhalable particulate matter)
USA - OSHA	OSHA PEL (TWA) (mg/m ³)	1 mg/m ³
Canada (Quebec)	VEMP (mg/m ³)	1 mg/m ³
Alberta	OEL TWA (mg/m ³)	1.5 mg/m ³
British Columbia	OEL TWA (mg/m ³)	0.05 mg/m ³
Manitoba	OEL TWA (mg/m ³)	1.5 mg/m ³ (inhalable particulate matter)
New Brunswick	OEL TWA (mg/m ³)	1 mg/m ³
Newfoundland & Labrador	OEL TWA (mg/m ³)	1.5 mg/m ³ (inhalable particulate matter)
Nova Scotia	OEL TWA (mg/m ³)	1.5 mg/m ³ (inhalable particulate matter)
Nunavut	OEL STEL (mg/m ³)	3 mg/m ³ (inhalable fraction)
Nunavut	OEL TWA (mg/m ³)	1.5 mg/m ³ (inhalable fraction)
Northwest Territories	OEL STEL (mg/m ³)	3 mg/m ³ (inhalable fraction)
Northwest Territories	OEL TWA (mg/m ³)	1.5 mg/m ³ (inhalable fraction)
Ontario	OEL TWA (mg/m ³)	1 mg/m ³ (inhalable)
Prince Edward Island	OEL TWA (mg/m ³)	1.5 mg/m ³ (inhalable particulate matter)
Saskatchewan	OEL STEL (mg/m ³)	3 mg/m ³ (inhalable fraction)
Saskatchewan	OEL TWA (mg/m ³)	1.5 mg/m ³ (inhalable fraction)
Yukon	OEL STEL (mg/m ³)	3 mg/m ³
Yukon	OEL TWA (mg/m ³)	1 mg/m ³
Silver (7440-22-4)		
USA - ACGIH	ACGIH TWA (mg/m ³)	0.1 mg/m ³ (dust and fume)
USA - OSHA	OSHA PEL (TWA) (mg/m ³)	0.01 mg/m ³
Canada (Quebec)	VEMP (mg/m ³)	0.1 mg/m ³
Alberta	OEL TWA (mg/m ³)	0.1 mg/m ³
British Columbia	OEL STEL (mg/m ³)	0.03 mg/m ³
British Columbia	OEL TWA (mg/m ³)	0.01 mg/m ³
Manitoba	OEL TWA (mg/m ³)	0.1 mg/m ³ (dust and fume)
New Brunswick	OEL TWA (mg/m ³)	0.1 mg/m ³
Newfoundland & Labrador	OEL TWA (mg/m ³)	0.1 mg/m ³ (dust and fume)
Nova Scotia	OEL TWA (mg/m ³)	0.1 mg/m ³ (dust and fume)
Nunavut	OEL STEL (mg/m ³)	0.3 mg/m ³ (metal)
Nunavut	OEL TWA (mg/m ³)	0.1 mg/m ³ (metal)
Northwest Territories	OEL STEL (mg/m ³)	0.3 mg/m ³ (metal)
Northwest Territories	OEL TWA (mg/m ³)	0.1 mg/m ³ (metal)
Ontario	OEL TWA (mg/m ³)	0.1 mg/m ³ (dust and fume)
Prince Edward Island	OEL TWA (mg/m ³)	0.1 mg/m ³ (dust and fume)
Saskatchewan	OEL STEL (mg/m ³)	0.3 mg/m ³
Saskatchewan	OEL TWA (mg/m ³)	0.1 mg/m ³
Yukon	OEL STEL (mg/m ³)	0.03 mg/m ³
Yukon	OEL TWA (mg/m ³)	0.01 mg/m ³
Zinc (7440-66-6)		
USA - ACGIH	ACGIH TWA (mg/m ³)	2 mg/m ³ (as ZnO)

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

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Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: No data available
Colour	: No data available
Odour	: No data available
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable, Flammable solid, In contact with water releases flammable gases which may ignite spontaneously.
Vapour pressure	: No data available
Vapour pressure at 50 °C	: No data available
Relative density	: Not applicable
Solubility	: No data available
Log Pow	: No data available
Explosive limits	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport. Flammable solid.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use. In contact with water releases flammable gases which may ignite spontaneously.
Conditions to avoid	: None under recommended storage and handling conditions (see section 7). Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition. Avoid dust formation. Water, humidity.
Incompatible materials	: metals.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Oral: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

ATE CA (oral)	1345.926 mg/kg bodyweight
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Potassium fluoride (K(HF₂)) (7789-29-9)	
LD50 oral rat	160 mg/kg

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Potassium fluoride (K(HF₂)) (7789-29-9)	
ATE CA (oral)	160 mg/kg bodyweight
Borate(1-), tetrafluoro-, potassium (14075-53-7)	
LD50 oral rat	5854 mg/kg
ATE CA (oral)	5854 mg/kg bodyweight
DEIONIZED WATER (7732-18-5)	
LD50 oral rat	> 90 ml/kg
Carbonic acid, dipotassium salt (584-08-7)	
LD50 oral rat	1870 mg/kg
ATE CA (oral)	1870 mg/kg bodyweight
Boric acid (H₃BO₃) (10043-35-3)	
LD50 oral rat	2660 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 0.16 mg/l/4h
ATE CA (oral)	2660 mg/kg bodyweight
Boron (7440-42-8)	
LD50 oral rat	650 mg/kg
ATE CA (oral)	650 mg/kg bodyweight
Magnesium (7439-95-4)	
LD50 oral rat	230 mg/kg
ATE CA (oral)	230 mg/kg bodyweight
Nickel (7440-02-0)	
LD50 oral rat	> 9000 mg/kg
LC50 inhalation rat (mg/l)	> 10.2 mg/l (Exposure time: 1 h)
Silver (7440-22-4)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 2000 mg/kg
Zinc (7440-66-6)	
LD50 oral rat	630 mg/kg
ATE CA (oral)	630 mg/kg bodyweight

Skin corrosion/irritation : Causes severe skin burns and eye damage.
Serious eye damage/irritation : Serious eye damage, category 1, implicit
Respiratory or skin sensitization : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Suspected of causing cancer.

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

Potassium fluoride (K(HF₂)) (7789-29-9)	
STOT-single exposure	May cause respiratory irritation.

: Causes damage to organs through prolonged or repeated exposure.

STOT-repeated exposure

Nickel (7440-02-0)	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

Symptoms/effects after inhalation : May cause respiratory irritation.
Symptoms/effects after skin contact : May cause an allergic skin reaction.

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. Very toxic to aquatic life.
Acute aquatic toxicity	: Very toxic to aquatic life.
Chronic aquatic toxicity	: Not classified

Borate(1-), tetrafluoro-, potassium (14075-53-7)

EC50 96h algae (1)	95 mg/l (Species: Desmodemus subspicatus)
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Carbonic acid, dipotassium salt (584-08-7)

EC50 Daphnia 1	630 mg/l (Exposure time: 48 h - Species: Ceriodaphnia dubia)
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Boric acid (H3BO3) (10043-35-3)

EC50 Daphnia 1	115 - 153 mg/l (Exposure time: 48 h - Species: Daphnia magna)
BCF fish 1	0
Log Pow	-0.757 (at 25 °C)

Copper (7440-50-8)

EC50 96h algae (1)	0.031 - 0.054 mg/l (Species: Pseudokirchneriella subcapitata [static])
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Nickel (7440-02-0)

LC50 fish 1	> 100 mg/l (Exposure time: 96 h - Species: Brachydanio rerio)
LC50 fish 2	1.3 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [semi-static])
EC50 Daphnia 1	> 100 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 Daphnia 2	1 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
EC50 72h algae (1)	0.18 mg/l (Species: Pseudokirchneriella subcapitata)
EC50 96h algae (1)	0.174 - 0.311 mg/l (Species: Pseudokirchneriella subcapitata [static])

Zinc (7440-66-6)

EC50 96h algae (1)	0.11 - 0.271 mg/l (Species: Pseudokirchneriella subcapitata [static])
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12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Boric acid (H3BO3) (10043-35-3)

BCF fish 1	0
Log Pow	-0.757 (at 25 °C)

12.4. Mobility in soil

Boric acid (H3BO3) (10043-35-3)

Log Pow	-0.757 (at 25 °C)
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12.5. Other adverse effects

Ozone : Not classified

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

14.1. Basic shipping description

In accordance with TDG

Transportation of Dangerous Goods

Not regulated for transport

14.2. Transport information/DOT

Department of Transport

Not regulated for transport

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14.3. Air and sea transport

IMDG

Not regulated for transport

IATA

Not regulated for transport

SECTION 15: Regulatory information

15.1. National regulations

Potassium fluoride (K(HF2)) (7789-29-9)

Listed on the Canadian DSL (Domestic Substances List)

Borate(1-), tetrafluoro-, potassium (14075-53-7)

Listed on the Canadian DSL (Domestic Substances List)

DEIONIZED WATER (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List)

Carbonic acid, dipotassium salt (584-08-7)

Listed on the Canadian DSL (Domestic Substances List)

Boric acid (H3BO3) (10043-35-3)

Listed on the Canadian DSL (Domestic Substances List)

Boron (7440-42-8)

Listed on the Canadian DSL (Domestic Substances List)

Magnesium (7439-95-4)

Listed on the Canadian DSL (Domestic Substances List)

Copper (7440-50-8)

Listed on the Canadian DSL (Domestic Substances List)

Nickel (7440-02-0)

Listed on the Canadian DSL (Domestic Substances List)

Silver (7440-22-4)

Listed on the Canadian DSL (Domestic Substances List)

Zinc (7440-66-6)

Listed on the Canadian DSL (Domestic Substances List)

15.2. International regulations

Potassium fluoride (K(HF2)) (7789-29-9)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Borate(1-), tetrafluoro-, potassium (14075-53-7)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Japanese Poisonous and Deleterious Substances Control Law
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

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DEIONIZED WATER (7732-18-5)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Carbonic acid, dipotassium salt (584-08-7)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on Turkish inventory of chemical

Boric acid (H3BO3) (10043-35-3)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on Turkish inventory of chemical

Boron (7440-42-8)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Magnesium (7439-95-4)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on Turkish inventory of chemical

Copper (7440-50-8)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on Turkish inventory of chemical

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Nickel (7440-02-0)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on Turkish inventory of chemical

Silver (7440-22-4)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on Turkish inventory of chemical

Zinc (7440-66-6)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on Turkish inventory of chemical

SECTION 16: Other information

Date of issue : 29 November 2017

Full text of H-statements:

H228	Flammable solid.
H260	In contact with water releases flammable gases which may ignite spontaneously.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H360	May damage fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.

SDS Canada (GHS)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.