

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture : Substance

Ingredient name	CAS number	% (w/w)
aluminium sulphate	10043-01-3	60 - 100

Occupational exposure limits, if available, are listed in Section 8.

4. FIRST AID MEASURES

Description of required first aid measures

Eye contact In case of contact with eyes, flush with fresh water. Check for and remove any contact lenses. Continue rinsing. If irritation persists, get medical attention. Get medical attention if irritation persist.

Skin contact Get medical attention if irritation occur.

Ingestion Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Inhalation Move victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if adverse health effects persist or are severe. Maintain an open airway.

Most important symptoms/effects, acute and delayed

Eye contact Adverse symptoms may include the following:
pain or irritation
watering
redness

Skin contact No specific symptoms under normal use conditions.

Ingestion No specific symptoms under normal use conditions.

Inhalation No specific symptoms under normal use conditions.

Notes to physician Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

See toxicological information (Section 11)

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media None known.

Specific hazards arising from the chemical No specific fire or explosion hazard.

Hazardous thermal decomposition products Decomposition products may include the following materials:
sulfur oxides
metal oxide/oxides

Special fire-fighting procedures Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action should be taken involving any personal risk or without suitable training.

Special protective equipment 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 without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Initiate spill response procedures if required.

Personal protection Put on appropriate personal protective equipment (see Section 8).

Cleaning method Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Use a water rinse for final clean-up.



7. HANDLING AND STORAGE

Handling	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. See Section 8 for additional information on hygiene measures.
Storage and Incompatibility	Store in accordance with local regulations. 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. Keep out of reach of children. Store away from incompatible materials (see Section 10).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

Ingredient name	Exposure limits
aluminium sulphate	CA Alberta Provincial (Canada, 4/2009). Skin sensitizer. 8 hrs OEL: 2 mg/m ³ , (as Al) 8 hours. CA Quebec Provincial (Canada, 1/2014). TWA-EV: 2 mg/m ³ , (as Al) 8 hours.

Appropriate engineering controls Good general ventilation should be sufficient to control worker exposure to airborne contaminants that could arise from the use of this product.

Individual protection measures

Eye/face protection Continued or severe exposures might require to wear a face shield or chemical splash goggles. It is minimally suggested to wear safety glasses while using or handling this product.

Hands and Body protection No specific protective equipment required under normal use conditions.

Respiratory protection It is suggested to wear dust-protection mask for prolonged or intense exposures.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid. [Granular solid.]	pH	Not available.	Flash point	[Product does not sustain combustion.]
Color	White.	Relative density	Not available.	Melting point	Not available.
Odor	Odorless.	Viscosity	Not available.	Boiling point	Not available.
Odor threshold	Not available.	Vapor pressure	Not available.	Fire point	: Not available.
Solubility in water	: Not available.	Vapor density	: Not available.	Evaporation rate	: Not available.
Decomposition temperature	: Not available.	Auto-ignition temperature	: Not available.		
Partition coefficient: n-octanol/ water	: Not available.	Flammability (solid, gas)	: Not available.		
Lower and upper explosive (flammable) limits	: Not available.				

10. STABILITY AND REACTIVITY

Reactivity	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	The product is stable.
Incompatible materials	No specific data.
Conditions to avoid	No specific data.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

Route of exposure	Not available.	
Eye contact	<u>Potential acute health effects</u> cause eye irritation	<u>Symptoms</u> Adverse symptoms may include the following: pain or irritation watering redness
Skin contact	No known significant effects or critical hazards.	No specific symptoms under normal use conditions.
Ingestion	No known significant effects or critical hazards.	No specific symptoms under normal use conditions.
Inhalation	No known significant effects or critical hazards.	No specific symptoms under normal use conditions.

Toxicity data

Product/ingredient name	Result	Species	Dose	Exposure
aluminium sulphate	LD50 Oral	Rat	6207 mg/kg	-

Information on toxicological effects

Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.
Sensitization	Not available.
Carcinogenicity	No known significant effects or critical hazards.

12. ECOLOGICAL INFORMATION

Ecotoxicity data

Product/ingredient name	Result	Species	Exposure
aluminium sulphate	Acute EC50 6570 µg/l Fresh water	Crustaceans - Asellus aquaticus - Adult	48 hours
	Acute IC50 167 µg/l Fresh water	Algae - Chlorella sp. - Exponential growth phase	72 hours
	Acute IC50 3200 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 4.4 mg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 4 µg/l Fresh water	Fish - Salvelinus fontinalis - Eyed stage, eyed embryo	30 days

Persistence and degradability : Unknown **Bioaccumulative potential** : Unknown **Mobility in soil** : Unknown **Other adverse effects** : Unknown

13. DISPOSAL CONSIDERATIONS

Disposal methods Dispose content and container in accordance with local, regional and national regulation in force.

14. TRANSPORT INFORMATION

	UN number	UN proper shipping name	Transport hazard class (es)	Packing group	TDG Placard
TDG Classification	Not regulated.	-	-	-	-
Additional information	See shipping documents for specific information on DOT, IMDG or IATA				

15. REGULATORY INFORMATION

Canadian lists

Canadian NPRI None of the components are listed.

CEPA Toxic substances None of the components are listed.

Canada inventory All components are listed or exempted.

International lists

United States All components are listed or exempted.

16. OTHER INFORMATION

Hazardous Material Information System (U.S.A.)

Health Hazard	1
Fire Hazard	0
Reactivity	0
Personal Protection	B

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Prepared by : Regulatory Affairs Department

Purity
42, de l'artisan
Victoriaville, Quebec
G6P 7E3

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