



**Canada Colors and Chemicals Limited**

**152 Kennedy Road South  
Brampton, Ontario  
Canada  
L6W 3G4**

**General Inquiry Number: (905) 459-1232**

**Material Safety Data Sheet  
Attached**

# THUNDER BAY CHEMICALS LTD

1100 Kam Road, Thunder Bay, Ontario, P7E 6T7  
Phone (807) 622-3741 Fax (807) 622-7544

Aluminum Sulphate, Ground  
T004

## MATERIAL SAFETY DATA SHEET

### SECTION 1 PRODUCT IDENTIFICATION

Chemical Name Aluminum Sulphate, Ground  
Synonyms Alum, Cake Alum, Aluminum Trisulphate, Dry Alum  
Trade Name Aluminum Sulphate, Ground  
Formula  $Al_2(SO_4)_3$   
Shipping Name Solid Aluminum Sulphate  
CAS Number 10043-01-3

This product is distributed by  
Canada Colors and Chemicals Limited  
General Inquiry: (905) 459-1232  
24 Hour Emergency: (416) 444-2112



CCC: Product Code: 170005

CCC: Product Name: ALUMINUM SULPHATE GROUND

### SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS Number	% by WT	Hazardous?	OSHA - PEL	ACGIH - TLV
Aluminum sulphate	10043-01-3	100%	Yes	2 mg/m <sup>3</sup> (TWA)	2 mg/m <sup>3</sup> (TWA)

### SECTION 3 HAZARDS IDENTIFICATION

Ingestion **Small Quantities:** Nausea, vomiting, stomach cramps, diarrhea.  
**Large Quantities:** In addition to nausea, vomiting, stomach cramps, and diarrhea, ulcerations and necrosis of the mucous membranes in the throat and mouth and esophagi, liver and kidney damage, hemorrhagic gastroenteritis and intense thirst. Exposure to dust or mists results in irritation of the respiratory tract.

Inhalation Exposure to dust or mists results in irritation of the respiratory tract.

Eye Contact Irritation

Skin Contact Irritation may occur on contact with moist skin.

Chronic Exposure Frequent or prolonged contact may cause dermatitis. Toxicity hazards will be higher for individuals who have kidney deficiency on massive or chronic ingestion.

Medical conditions aggravated Kidney disease

Exposure Limits ACGIH(TLV): 2 mg/m<sup>3</sup> (TWA)  
OSHA(TLV): None (TWA)

Carcinogenicity None of the ingredients present at concentrations equal to or greater than 0.1% are listed as a carcinogen or potential carcinogen by IARC, NTP, or OSHA.

### SECTION 4 FIRST AID MEASURES

Inhalation In case of discomfort, remove to a ventilated area. If discomfort persists, consult a physician.

Skin Contact Remove contaminated clothes. Flush skin thoroughly with water.

Eye Contact Flush eyes with water and carefully rinse under eyelids. Continue flushing for a minimum 15 minutes. If irritation persists, consult a physician.

Ingestion Do not induce vomiting. Give water or milk. Consult a physician. Do not give bicarbonate to neutralize.

### SECTION 5 FIRE FIGHTING METHODS

Flash Point Not Flammable  
Auto-Ignition Temperature Not Combustible  
Fire Extinguishing Media Dry chemical, CO<sub>2</sub>, water spray, or regular foam.  
Hazardous Combustion Products N/A

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**SECTION 6 HANDLING, RELEASES AND STORAGE**

Handling Precautions	Avoid generating dust during handling. Avoid prolonged or repeated skin contact.
Release Measures	Vacuum and place in an airtight container, keeping airborne dust generation to a minimum. Recycle if possible. Avoid contaminating surface, waterways, or sewers leading to surface water. Do not flush with water. Will give a strong astringent taste to water supply. High concentration may increase lead content of water if lead supply pipes are used.
Storage Conditions	Store in a dry weather-proof area. Store away from bases. Due to risk of corrosion, do not store this product in steel containers. Avoid generating or raising dust.

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**SECTION 7 EXPOSURE CONTROLS / PERSONAL PROTECTION**

Engineering Controls	Provide general and/or local exhaust ventilation to keep concentrations below ACGIH TLV.
Respiratory Protection	Mask or full-face respirator should be provided if excessive dust concentrations occur.
Skin Protection	Normal body-covering work clothing recommended.
Eye Protection	Tight fitting goggles should be worn when dust concentration exceeds recommended exposure limits.

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**SECTION 8 PHYSICAL AND CHEMICAL PROPERTIES**

pH (1% Solution)	3.7
Boiling Point	N/D
Melting Point	770°C (1418°F)
Vapour Pressure	N/A
Vapour Density	N/A
Relative Density	2.7
Partition Coefficient	N/D
Flash Point	N/A
Autoignition Temperature	N/A
Lower Flammable Limit	N/A
Upper Flammable Limit	N/A
Explosive Properties	N/A
Odour Threshold	N/A
Oxidizing Properties	N/A
Water Solubility	310 g/L

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**SECTION 9 STABILITY AND REACTIVITY**

Stable	Yes
Conditions and Materials to Avoid	High Humidity: Hydrolysis of aluminum sulphate to sulphuric acid will occur under conditions of high humidity. Also, high humidity will cause a decrease in pH of aqueous solutions (a 1% solution has a pH of 3.7)
Hazardous Decomposition Products	Decomposes to sulphur oxides (SO <sub>2</sub> and SO <sub>3</sub> ) at high temperatures (above 770°C (1418°F))

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**SECTION 10 TRANSPORT INFORMATION****Transport Canada (TC)**

Shipping Name Aluminum Sulphate, solid  
Placards are not required for this product

**DOT (United States)**

When shipped as a single bulk package of 5,000 lbs. or more, this material is regulated as a U.S. DOT hazardous material as follows: Reportable Quantity, UN 3077, Environmentally Hazardous Substance, solid n.o.s., (Aluminum Sulphate), Hazard Class 9, Packing Group III.

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## SECTION 11 REGULATORY INFORMATION

### Canada

WHMIS Classification Class D2B – Poisonous and Infectious – Other Effects – Toxic

### United States

Section 313 Supplier Notification This product contains no chemical concentration subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (Title III of SARA) and of 40 CFR 372.

TCSA - DSL (USA and Canada) This substance or all the ingredients of this product are on the Domestic Substances List, Canadian Environmental Protection Agency (Canada), as well as on the Chemical Substances Inventory (USA). The presence on these lists does not require any legal reporting.

### Europe

EEC Classification

Warning Symbol

Warning Word

Risk Phrases

Safety Phrases

Xi

Irritant

R36/37/38: Irritating to eyes, respiratory system and skin.

S24/25: Avoid contact with skin and eyes. S29: Do not empty into drains.

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## SECTION 12 LEGEND

ACGIH	American Conference of Governmental Industrial Hygienists
CAS#	Chemical Abstracts Service Registry Number
DSL	Domestic Substances List
DOT	Department of Transportation (United States)
EC	European Community
IARC	International Agency for Research on Cancer
N/A	Not Applicable
N/D	Not Determined
NSF	National Sanitation Foundation (United States)
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration (United States)
PEL	Permissible Exposure Limit
RQ	Reportable Quantity
TLV	Threshold Limit Value
TWA	Time Weighted Average
WHMIS	Workplace Hazardous Material Information System

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## SECTION 13 NSF CERTIFICATION INFORMATION



Thunder Bay Chemicals, Ltd. received NSF Certification in 1997. The maximum dosage in drinking water is 150 mg/L, according to NSF Standard 60.

Certified to NSF/ANSI 60

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## SECTION 14 NOTES

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**SECTION 15 MSDS PREPARATION INFORMATION**

Prepared by	Thunder Bay Chemicals, Ltd. - (807) 622-3741
Date	November 30, 2001
Revised	August 2005, August 13, 2007, August 21, 2008, March 14, 2011, April 1, 2012 February 22, 2013, February 10, 2015
Emergency Phone Number	(204) 222-3276 - 24 hours

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