

MATERIAL SAFETY DATA SHEET

Section 1: Product and Company Identification

Product name: Phosfloc
Chemical name: Aluminum Sulfate
Chemical family: Aluminum trisulfate, Dialuminum sulfate, Sulfuric acid aluminum salt
Chemical formula: Aluminum Sulfate 99.99%
Product code(s): 07200
Manufacturer: Natural Chemistry, Inc.
USA: 76 Progress Drive, Stamford, CT 06902
CANADA: 17 Trent Drive, Campbellford, ON Canada K0L 1L0
Emergency phone: 800-753-1233
Fax number: 705-653-5445
Revision Date: April 05, 2005

Section 2: Composition / Information on Ingredients

CAS No.	Chemical Name	% wt.	EINECS#
10043-01-3	Aluminum Sulfate	99.99%	233-135-0
Hazard symbols: none listed		Risk phrases: none listed	

Section 3: Hazards Identification

CAUTION Hygroscopic (Appearance: white powder)
May cause respiratory and digestive tract irritation. May cause eye and skin irritation.
EMERGENCY OVERVIEW
Target Organs: none
Potential Health Effects
Eye: Dust may cause mechanical irritation.
Skin: May cause skin irritation. Low hazard for usual industrial handling.
Ingestion: Ingestion of large amounts may cause gastrointestinal irritation.
Expected to be a low ingestion hazard.
Inhalation: May cause respiratory tract irritation. Low hazard for usual industrial handling.
Cronic: No information found.

Section 4: First Aid Measures

If in eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
If on skin: Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.
If swallowed: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.
If inhaled: Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.
Notes to Physician: Treat symptomatically and Antidote: None reported

Section 5: Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.
Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or appropriate foam.
Autoignition Temperature: Not available
Flash Point: Not available
Explosive Limits, lower: Not available
Explosive Limits, upper: Not available
NFPA Rating (estimated): Health: 1; Flammability: 0; Reactivity: 0

Section 6: Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in section 8.
Spills/Leaks: Wash area with soap and water. Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions. Provide ventilation.

MATERIAL SAFETY DATA SHEET

Section 7: Handling and Storage

Handling: Wash thoroughly after handling. Use in well ventilated area. Minimize dust generation and accumulation. Avoid contact with skin, eyes or clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Storage: Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool dry, well-ventilated area away from incompatible substances. Keep away from water. Store protected from moisture.

Section 8: Exposure Controls, Personal Protection

Engineering Controls: Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

OSHA Vacated PELs: Aluminum sulfate: total dust, as Al: 15 mg/m³ TWA;
respirable fraction, as Al: 5mg/m³ TWA (listed under **no name**)

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9: Physical and Chemical Properties

Physical State: solid
Appearance: white powder
Odor: none reported
pH: >2.9 at 5% solution
Vapor Pressure: negligible
Vapor Density: not available
Evaporation Rate: negligible
Viscosity: not available
Boiling Point: not available
Freezing/Melting Point: 1418 deg F
Decomposition Temperature: 1418 deg F
Solubility: soluble
Specific Gravity/Density: 2.7 (water=1)
Molecular Formula: Al₂(SO₄)₃
Molecular Weight: 342.1358

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions To Avoid: Incompatible materials, dust generation, moisture, exposure to moist air or water

Incompatibilities with Other Materials: Moisture.

Hazardous Decomposition Products: Oxides of sulfur, aluminum oxide.

Hazardous Polymerization: Has not been reported.

Section 11: Toxicological Information

RTECS#: CAS# 10043-01-3: BD 1700000

LD50/LC50: CAS# 10043-01-3: Draize test, rabbit, eye: 10mg/24H Severe; Oral, mouse: LD50=6207 mg/kg

Carcinogenicity: Aluminum sulfate not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology: No data available.

Teratogenicity: No information available.

Reproductive Effects: No information available.

Neurotoxicity: No information available.

Mutagenicity: No information available.

Other Studies: No data available.

Section 12: Ecological Information

Other: No information available.

MATERIAL SAFETY DATA SHEET

Section 13: Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14: Transportation Information

US DOT: No information available

Canadian TDG: Shipping name: ALUMINUM SULFATE SOLID

Hazard Class: 9.2

UN Number: UN9078

Other Information: REGULATED LIMIT 230 KG

Section 15: Regulatory Information

US FEDERAL

TSCA CAS#10043-01-3 is listed on the TSCA inventory.

Health & Safety

Reporting List: None of the chemicals in this product are under a Chemical Test Rule.

Section 12b: None of the chemicals are listed under TSCA Section 12b.

TSCA Significant

New Use Rule: None of the chemicals in this product have a SNUR under TSCA.

SARA Section 302 (RQ): CAS#10043-01-3: final RQ = 5000 pounds (2270 kg)

Section 302 (TPQ): None of the chemicals in this product have a TPQ.

SARA Codes: CAS#10043-01-3: acute, chronic.

Section 313: This material contains Aluminum sulfate (listed as **undefined**), 99.999%, (CAS#10043-01-3) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 372.

Clean Air Act: This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act: CAS# 10043-01-3 is listed as a Hazardous Substance under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA: None of the chemicals in this product are considered highly hazardous by OSHA.

STATE: Aluminum sulfate can be found on the following state right to know lists:

California, New Jersey, Florida, (listed as **no name**), Pennsylvania,

Minnesota, (listed as **no name**) Massachusetts. California No Significant Risk

Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available

Risk Phases:

Safety Phases: S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS#10043-01-3: 1

United Kingdom Occupational Exposure Limits

CAS#10043-01-3: OES-United Kingdom, TWA (listed as **undefined**): total inhalable dust: 10 mg/m³ TWA; respirable dust: 4 mg/m³ TWA

Canada

CAS#10043-01-3 is listed on Canada's DSL List.

This product has a WHMIS classification of D2B.

CAS#10043-01-3 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits:

CAS#10043-01-3:OEL-AUSTRALIA: TWA 2 mg(Al)/m³

MATERIAL SAFETY DATA SHEET

OEL-DENMARK: TWA 2 mg(A1)/m³

OEL-FRANCE: TWA 2 mg(A1)/m³

OEL-THE NETHERLANDS: TWA 2 mg(A1)/m³

OEL-RUSSIA: TWA 2 mg(A1)/m³

OEL-SWEDEN: TWA 2 mg(A1)/m³

OEL-SWITZERLAND: TWA 2 mg(A1)/m³

OEL-UNITED KINGDOM: TWA 2 mg(A1)/m³

OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV

OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

Section 16: Additional Information

MSDS Creation Date: April 05, 2005

Natural Chemistry, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. Natural Chemistry, Inc. makes no representations or warranties, either express or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly, Natural Chemistry, Inc. will not be responsible for damages resulting from use of or reliance upon this information.

MSDS are intended as a tool for hazard evaluation within the work place. Judgment should be exercised in extrapolating MSDS data to the community environment and to use as intended by the general public.

Authorized by: Robert Kulperger

Phone Number: 800-753-1233