

Safety Data Sheet

SECTION 1: Identification

1.1 GHS Product identifier

Product name	Aluminate
Product number	867
Brand	Crown Chemical, Inc

1.2 Other means of identification

Aluminate

1.3 Recommended use of the chemical and restrictions on use

Fast Acting Heavy Duty Foaming Aluminum Cleaner and Brightener

1.4 Supplier's details

Name	Crown Chemical, Inc.
Address	4701 W. 136th. St. Crestwood, Illinois 60418 U.S.A.
Telephone	708-371-6990
Fax	708-371-6992
email	info@crown-chem.com

1.5 Emergency phone number

800-535-5053

SECTION 2: Hazard identification

General hazard statement

Fatal if swallowed, in contact with skin or if inhaled. Causes severe skin burns and serious eye damage.

2.1 Classification of the substance or mixture

GHS classification in accordance with: (US) OSHA (29 CFR 1910.1200)

- Eye damage/irritation, Cat. 1
- Skin corrosion/irritation, Cat. 1A
- Acute toxicity, dermal, Cat. 1
- Acute toxicity, inhalation, Cat. 2
- Acute toxicity, inhalation, Cat. 3
- Acute toxicity, oral, Cat. 2

2.2 GHS label elements, including precautionary statements

Pictogram



1. Corrosion; 2. Skull and crossbones

Signal word

Danger

Safety Data Sheet

Aluminate

Hazard statement(s)

H300	Fatal if swallowed
H310	Fatal in contact with skin
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H330	Fatal if inhaled
H331	Toxic if inhaled

Precautionary statement(s)

P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P262	Do not get in eyes, on skin, or on clothing.
P264	Wash hands & skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear eye protection/face protection/protective gloves/protective clothing.
P284	[In case of inadequate ventilation] wear respiratory protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/...
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: Wash with plenty of water/Take off immediately contaminated clothing and wash it before reuse. Call a poison control center or doctor for treatment advice if irritation persists.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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.
P310	Immediately call a POISON CENTER/doctor for treatment advice.
P311	Call a POISON CENTER/doctor/...
P320	Specific treatment is urgent (see ... on this label).
P321	Specific treatment (see details on label).
P330	Rinse mouth.
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents and container in accordance with all local, state, national and international regulations.

2.3 Other hazards which do not result in classification

None identified

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Mixture

Components

1. Hydrofluoric acid (conc. less than 50%)

Concentration	7 - 12 % (By Weight)
CAS no.	7664-39-3

- Acute toxicity, dermal, Cat. 1
- Acute toxicity, inhalation, Cat. 2
- Acute toxicity, oral, Cat. 2
- Skin corrosion/irritation, Cat. 1A

Safety Data Sheet

Aluminate

H300	Fatal if swallowed
H310	Fatal in contact with skin
H314	Causes severe skin burns and eye damage
H330	Fatal if inhaled

2. 2-Butoxyethanol

Concentration	4 - 9 % (By Weight)
CAS no.	111-76-2

- Skin corrosion/irritation, Cat. 2
- Serious eye damage/eye irritation, Cat. 2
- Acute toxicity, dermal, Cat. 4
- Acute toxicity, inhalation, Cat. 4
- Acute toxicity, oral, Cat. 4

H302	Harmful if swallowed
H312	Harmful in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled

3. Sulfuric acid

Concentration	8 - 13 % (By Weight)
CAS no.	7664-93-9

- Skin corrosion/irritation, Cat. 1A

H314	Causes severe skin burns and eye damage
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Trade secret statement (OSHA 1910.1200(i))

The specific chemical identities and/or actual concentrations for one or more components are being withheld as trade secrets under the US regulation 29 CFR 1910.1200(i).

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Both liquid and vapor are extremely corrosive and destructive to tissue. Specialized medical treatment is required for all exposures. Do not breathe fumes, mist or vapors, which are extremely corrosive to nasal passages, respiratory tract and mucous membranes. Do not get in eyes, on skin or on clothing. Product can absorb through the skin and cause internal damage. Wear protective rubber gloves when handling this product. Wash hands, forearms and face thoroughly after handling. Wear chemical splash goggles which seal to the face when using this product. Wear NIOSH approved respiratory protection at all times when using this product. Do not eat, drink or smoke when using this product. Use only outdoors in a well ventilated area. Keep only in original container.
If inhaled	Remove person to fresh air and keep comfortable for breathing. Immediately call a poison control center or doctor for treatment advice. If breathing has stopped, an authorized person should begin artificial respiration at once, until the victim is able to breathe easily himself.
In case of skin contact	Immediately wash the burned area with plenty of water for 15 minutes. Remove contaminated clothing while continuing to wash. After at least 5 minutes of washing, immerse the burned area in a solution of 0.13% iced aqueous Benzalkonium Chloride or 2.5% Calcium Gluconate gel until pain is relieved. Call a poison control center or doctor for treatment advice.

Safety Data Sheet

Aluminate

In case of eye contact	Immediately flush the eyes with large amounts of gently flowing water. Hold the eyelids open and away from the eye to allow thorough flushing. If the person is wearing contact lenses, the lenses should be removed, if possible. Flushing should not be interrupted, and the lenses should only be removed by a person qualified to do so. Victim should be taken to a doctor as soon as possible, preferably an eye specialist. Ice water compresses may be applied to the eyes during transportation. Avoid rubbing eyes.
If swallowed	Do NOT induce vomiting. Immediately have victim drink several large glasses of water or milk to dilute the acid. Do not give emetics or baking soda. Never give anything by mouth to an unconscious person. Give victim several ounces of milk of magnesia, any antacid containing calcium or grind up and administer up to 30 antacid tablets with water. Ingestion of HF is a life threatening emergency. Immediately call a poison control center or doctor for treatment advice.

4.2 Most important symptoms/effects, acute and delayed

See Section 11 for additional information.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Treat exposure symptomatically. In all cases of eye contact, ingestion, or inhalation, contact a doctor or Poison Control Center immediately.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Use water spray, fog or foam.

5.2 Specific hazards arising from the chemical

Sulfuric acid: No data available.

5.3 Special protective actions for fire-fighters

Remove all persons from the vicinity. No responsive action should be taken without proper training.

Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Initiate spill containment procedures immediately using containment or absorption methods. Keep people away from area. Put on appropriate protective equipment (see Section 8).

6.2 Environmental precautions

See Section 12 for ecological information.

6.3 Methods and materials for containment and cleaning up

Do not allow spilled material to enter sewers, waterways or soil. Neutralize with water. Mop, sweep or otherwise collect spilled material and hold for disposal. Consult local government authorities for allowable disposal methods. After removal, rinse area completely with water to remove residue.

Reference to other sections

For disposal see section 13.

Safety Data Sheet

Aluminate

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Both liquid and vapor are extremely corrosive and destructive to tissue. Specialized medical treatment is required for all exposures.

7.2 Conditions for safe storage, including any incompatibilities

Store in a locked location inaccessible to small children. Keep container closed when not in use. Store in a well ventilated area between 60-100°F (15- 38°C).

Specific end use(s)

Apart from the uses mentioned in section 1 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. Hydrogen fluoride (as F) (CAS: 7664-39-3)

PEL (Inhalation): See Annotated Z-2 ppm (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

PEL (Inhalation): See Annotated Z-2 (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

REL (Inhalation): See Annotated Z-2 (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov

2. 2-Butoxyethanol (CAS: 111-76-2 EC: 203-905-0)

PEL (Inhalation): 240 mg/m³ (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

PEL (Inhalation): 20 ppm (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

REL (Inhalation): 5 ppm (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov

PEL (Inhalation): 20 ppm, 97 mg/m³
California permissible exposure limits for chemical contaminants
(Title 8, Article 107)/Skin

TWA (Inhalation): 50 ppm, 240 mg/m³; USA (OSHA)
USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air
Contaminants/Skin designation
The value in mg/m³ is approximate

TWA (Inhalation): 5 ppm, 24 mg/m³; USA (NIOSH)
USA. NIOSH Recommended Exposure Limits/Potential for dermal absorption

TWA (Inhalation): 20 ppm; USA (ACGIH)
USA. ACGIH Threshold Limit Values (TLV)/Upper Respiratory Tract irritation Eye irritation Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Confirmed animal carcinogen with unknown relevance to humans

TLV® (Inhalation): 20 ppm; USA (ACGIH)
OSHA Annotated Table Z-1, www.osha.gov

3. Sulfuric acid (CAS: 7664-93-9 EC: 231-639-5)

PEL (Inhalation): 1 mg/m³ (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

PEL (Inhalation): 0.1 mg/m³, (ST) 3 mg/m³ (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

Safety Data Sheet

Aluminate

REL (Inhalation): 1 mg/m³; USA (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov

TLV® (Inhalation): 0.2 mg/m³, (Thor.); USA (ACGIH)
OSHA Annotated Table Z-1, www.osha.gov

TWA (Inhalation): 0.2 mg/m³; USA (ACGIH)
USA. ACGIH Threshold Limit Values (TLV)

TWA (Inhalation): 1 mg/m³; USA (OSHA)
USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000

8.2 Appropriate engineering controls

Use with adequate ventilation to maintain exposure limits below listed thresholds.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear chemical splash goggles or face shield when using this product.

Skin protection

Wear protective rubber gloves, a long sleeve shirt and, if necessary, a rubber apron to prevent contact.

Body protection

Wash hand thoroughly after handling. Avoid contact with clothing or shoes. Wash contaminated items before reuse. Avoid wearing contact lenses when using this product.

Respiratory protection

Wear a NIOSH approved respirator for corrosive dusts or mists.

Thermal hazards

No data available.

Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and chemical properties and safety characteristics

Basic physical and chemical properties

Appearance	Green Liquid
Odor	Characteristic
Odor threshold	No data available.
Melting point/freezing point	No data available.
Boiling point or initial boiling point and boiling range	No data available.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	Non-Combustible
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	<2.0 (1% solution)
Kinematic viscosity	(H ₂ O =1.0) >1.0
Solubility	100% in 120°F Water
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	No data available.
Evaporation rate	No data available.
Density and/or relative density	(H ₂ O =1.0) >1.0
Relative vapor density	No data available.

Further safety characteristics (supplemental)

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Product is highly reactive with alkalis. Reactions may produce hazardous conditions, including violent splattering of corrosive materials. Product is reactive with halogens (such as chlorine) and may release chlorine gas if mixed with these materials. NEVER mix this product with other chemicals. Mix this product ONLY with water.

10.2 Chemical stability

Product is stable under normal storage and usage conditions.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Heat, flames and sparks. Incompatible products. Keep away from open flames, hot surfaces and sources of ignition.

10.5 Incompatible materials

2-Butoxyethanol: Strong oxidizing agents

Sulfuric acid: Bases, Halides, Organic materials, Carbides, fulminates, Nitrates, picrates, Cyanides, Chlorates, alkali halides, Zinc salts, permanganates, e.g. potassium permanganate, Hydrogen peroxide, Azides, Perchlorates., Nitromethane, phosphorous, Reacts violently with:, cyclopentadiene, cyclopentanone oxime, nitroaryl amines, hexalithium disilicide, phosphorous(III) oxide, Powdered metals

10.6 Hazardous decomposition products

2-Butoxyethanol: Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - No data available

In the event of fire: see section 5

Sulfuric acid: Hazardous decomposition products formed under fire conditions. - Sulphur oxides

Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Eyes, Skin, Ingestion, Inhalation

ATE (dermal) of mixture: 31.2 mg/kg

ATE (inhalation, dust/mist) of mixture: 0.31 mg/l

ATE (inhalation, gaseous) of mixture: 619.83 ppmv

ATE (oral) of mixture: 31.13 mg/kg

Skin corrosion/irritation

Irritation, pain, redness, blistering.

Serious eye damage/irritation

Irritation, pain, redness, watering.

Respiratory or skin sensitization

Coughing, choking, respiratory tract irritation, breathing difficulty.

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

No data available.

Safety Data Sheet

Aluminate

STOT-single exposure

No data available.

STOT-repeated exposure

No data available.

Aspiration hazard

No data available.

Additional information

No known significant effects or critical hazards.

SECTION 12: Ecological information

Toxicity

No specific data available for this mixture. Phosphoric Acid is known to be toxic to aquatic life.

Persistence and degradability

No data available on product.

Bioaccumulative potential

No data available on product

Mobility in soil

No data available.

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Avoid disposal of this product. Use complete contents according to directions. Do not release contents into a municipal sewer except through normal dilution and usage. Do not release contents onto the ground or into any body of water. Dispose of empty container by offering for recycling if available, or into a landfill. Follow all applicable state and local regulations.

SECTION 14: Transport information

DOT (US)

UN Number: UN 2922

Class: 8

Packing Group: II

UN 2922, Corrosive Liquids, Toxic, N.O.S., 8, 6.1, PG II (Contains Hydrofluoric Acid, Sulfuric Acid)

Reportable quantity (RQ): Hydrofluoric Acid

Note: Certain package sizes of this product may qualify for exceptions to DOT's packaging, labeling and other requirements, and thus may have different DOT shipping names. For bulk shipments, see the shipping documents.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

SARA 302 Components

The following components are subject to reporting levels established by SARA Title III, Section 302:
Sulfuric acid, CAS number: 7664-93-9

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:
Ethylene glycol monobutyl ether, CAS: 111-76-2
Sulfuric acid, CAS number: 7664-93-9

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

Chemical name: Hydrofluoric acid, CAS number: 7664-39-3
Ethylene glycol monobutyl ether, CAS: 111-76-2
Sulfuric acid, CAS number: 7664-93-9

Pennsylvania Right To Know Components

Chemical name: Hydrofluoric acid, CAS number: 7664-39-3
Ethylene glycol monobutyl ether, CAS: 111-76-2
Sulfuric acid, CAS number: 7664-93-9

New Jersey Right To Know Components

Common name: HYDROGEN FLUORIDE, CAS number: 7664-39-3
Ethylene glycol monobutyl ether, CAS: 111-76-2
Sulfuric acid, CAS number: 7664-93-9

California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause cancer.
Sulfuric acid, CAS number: 7664-93-9

SECTION 16: Other information

The information herein is believed to be correct, but is given without warranty or guaranty of any kind, express or implied. The hazards provided in this Safety Data Sheet apply to the product in its concentrated form, and may differ significantly after dilution.

16.1 Further information/disclaimer

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall Crown Chemical, Inc. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if Crown Chemical, Inc. has been advised of the possibility of such damages.