



AF 310 (AFCO 8832)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision Date: 02/12/2025

Version: 1.1

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: AF 310

Product Code: AFCO 8832

Intended Use of the Product

Use of the Substance/Mixture: Water treatment chemical. For professional use only.

Name, Address, and Telephone of the Responsible Party

Company

AFCO
800 Development Avenue
Chambersburg, PA 17201
T: 800-345-1329

www.afcocare.com

Emergency Telephone Number

Emergency Number : 1-800-424-9300 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Met. Corr. 1 H290

Eye Dam. 1 H318

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)

:



GHS05

Signal Word (GHS-US)

: Danger

Hazard Statements (GHS-US)

: H290 - May be corrosive to metals

H318 - Causes serious eye damage

Precautionary Statements (GHS-US)

: P234 - Keep only in original container.

P280 - Wear protective gloves/face protection.

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 or doctor/physician.

P390 - Absorb spillage to prevent material damage.

P406 - Store in corrosive resistant/container with a resistant inner liner.

Other Hazards

Other Hazards Not Contributing to the Classification: None.

Other Hazards: Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. When heated to decomposition, emits toxic fumes. Contact with metals may evolve flammable hydrogen gas.

Unknown Acute Toxicity (GHS-US) Not available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Mixture

Name of Hazardous Components	Product identifier	% (w/w)	Classification (GHS-US)
Polyaluminum chloride	(CAS No) 1327-41-9	30 - 40	Met. Corr. 1, H290 Eye Dam. 1, H314

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SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention.

Skin Contact: Immediately flush skin with plenty of water for several minutes. Get immediate medical advice/attention. Wash contaminated clothing before reuse.

Eye Contact: Seek medical attention immediately. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms and Effects Both Acute and Delayed

General: Causes serious eye damage. Repeated or prolonged skin contact may cause skin irritation.

Inhalation: Not classified.

Skin Contact: Not classified

Eye Contact: Causes serious eye damage.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: Not available.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: This product does not burn. Use extinguishing measures appropriate to the surrounding environment.

Unsuitable Extinguishing Media: None.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not flammable.

Explosion Hazard: Product is not explosive. Contact with soft metals may release flammable hydrogen gas.

Reactivity: Thermal decomposition generates: Hydrogen chloride(HCl), aluminum compounds, fumes. When heated to decomposition, may cause formation of hydrogen chloride. Exposure to decomposition products may be a hazard to health. Corrosive to soft metals.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Thermal decomposition can lead to release of irritating gases and vapors. Small amounts of hydrogen chloride may be released at temperatures above boiling point.

Other information: Do not allow run-off from fire fighting to enter drains or water courses.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not get in eyes, on skin, or on clothing.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: None.

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Environmental Precautions

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Cover the drains. Must be disposed of in accordance with local and national regulations. Local authorities should be advised if significant spillages cannot be contained.

Methods and Material for Containment and Cleaning Up

For Small Spillage: Dilute residues with water, then neutralize with lime or limestone powder to a solid consistency. Shovel or sweep up. Must be disposed of in accordance with local and national regulations.

For Large Spillage: Remove spill using a vacuum truck. Dilute residues with water, then neutralize with lime or limestone powder to a solid consistency. Shovel or sweep up. Must be disposed of in accordance with local and national regulations.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: When heated to decomposition, emits toxic fumes. Corrosive vapors are released. Contact with soft metals may evolve flammable hydrogen gas.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Wash hands and forearms thoroughly after handling.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations. May be corrosive to metals.

Storage Conditions (for quality reasons): Keep at temperatures between 30°C (86°F) and 0°C (32°F).

Incompatible Materials: Chlorites. Hypochlorites. Sulphites. Galvanized surfaces. Iron. Strong bases.

Special Rules on Packaging: Keep only in original container.

Specific End Use(s): Water treatment chemical. For professional use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Polyaluminum chloride (1327-41-9)		
USA ACGIH	ACGIH Ceiling (mg/m ³)	2 mg/m ³

Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.

Personal Protective Equipment: Protective goggles. Protective clothing. Insufficient ventilation: wear respiratory protection. Gloves. Face shield.



Materials for Protective Clothing: Chemically resistant materials and fabrics. Corrosionproof clothing.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or face shield.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Clear, light yellow
Odor	: Not significant
Odor Threshold	: Not available
pH	: Approx. 1.0

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Relative Evaporation Rate (butylacetate=1)	: Not available
Melting Point	: -20°C (-4°F)
Freezing Point	: Not available
Boiling Point	: 105°C (221°F)
Flash Point	: Not applicable, inorganic compound
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not flammable
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20°C	: Not available
Specific Gravity	: 1.34-1.40
Solubility	: Complete
Partition coefficient: n-octanol/water	: Not available
Viscosity	: 30-40 mPa/s (@23°C)
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact
Explosion Data – Sensitivity to Static Discharge	: Not expected to present an explosion hazard due to static discharge

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Corrosive to metals. Exposure to strong bases cause exothermic reactions.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Avoid freezing or exposure to temperatures above 200°C/392°F. Prolonged contact with metals. Incompatible materials.

Incompatible Materials: Chlorites. Hypochlorites. Sulfites. Galvanized surfaces. Iron. Strong bases.

Hazardous Decomposition Products: Thermal decomposition can lead to release of irritating gases and vapors. Small amounts of hydrogen chloride may be released at temperatures above boiling point.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified.

LD50 and LC50 Data: Not available.

Skin Corrosion/Irritation: Not classified. (pH: 1.0)

Serious Eye Damage/Irritation: Causes serious eye damage. (pH: 1.0)

Respiratory or Skin Sensitization: Not classified.

Germ Cell Mutagenicity: Not classified.

Teratogenicity: Not available.

Carcinogenicity: None.

Specific Target Organ Toxicity (Repeated Exposure): Not classified.

Reproductive Toxicity: Not classified.

Specific Target Organ Toxicity (Single Exposure): Not classified.

Aspiration Hazard: Not classified.

Symptoms/Injuries After Inhalation: Inhalation of mists may cause respiratory tract irritation.

Symptoms/Injuries After Skin Contact: Repeated or prolonged skin contact may cause skin irritation.

Symptoms/Injuries After Eye Contact: Causes serious eye damage.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects. Contact may cause immediate severe irritation progressing quickly to chemical burns.

Chronic Symptoms: None.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

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Polyaluminum chloride (1327-41-9)	
LD50 Oral Rat	>2000 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

Toxicity Not classified.

Polyaluminum chloride (1327-41-9)	
LC50 Fish 1	>1000 mg/l (Exposure time: 96 h - Species: Danio rerio)
EC50 Daphnia 1	98 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Persistence and Degradability: Not available.

Bioaccumulative Potential

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Bioaccumulative Potential	Not expected to bioaccumulate.

Mobility in Soil Not available.

Other Adverse Effects Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Classified as hazardous waste. Dilute residues with water and then neutralize with lime or limestone powder. Must be disposed of in accordance with local and national regulations. Thoroughly cleaned packaging material may be recycled. EPA Hazardous Waste - D002

Packages that cannot be cleaned must be disposed of the same way as the unused product.

SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT

Proper Shipping Name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
Hazard Class : 8
Identification Number : UN3264
Label Codes : 8
Packing Group : III
ERG Number : 154



14.2 In Accordance with IMDG

Proper Shipping Name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (POLYALUMINUM CHLORIDE)
Hazard Class : 8
Identification Number : UN3264
Packing Group : III
Label Codes : 8
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B



14.3 In Accordance with IATA

Proper Shipping Name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (POLYALUMINUM CHLORIDE)
Packing Group : III
Identification Number : UN3264
Hazard Class : 8
Label Codes : 8
ERG Code (IATA) : 8L



14.4 In Accordance with TDG

Proper Shipping Name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
Packing Group : III
Hazard Class : 8
Identification Number : UN3264
Label Codes : 8



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SECTION 15: REGULATORY INFORMATION

US Federal Regulations

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SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard.
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All components are listed or exempt from Listing on the United States TSCA (Toxic Substances Control Act) inventory.	

US State Regulations

None.

Canadian Regulations

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All components are listed on the Canadian DSL (Domestic Substances List) inventory.	

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all of the information required by those regulations.

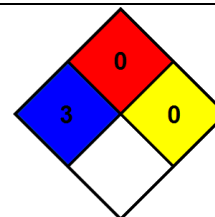
SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision date : 02/12/2025
Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Eye Dam. 1	Serious eye damage/eye irritation Category 1
Met. Corr. 1	Corrosive to metals Category 1
H290	May be corrosive to metals
H318	Causes serious eye damage

NFPA Health Hazard : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.
NFPA Fire Hazard : 0 - Materials that will not burn.
NFPA Reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken, and medical treatment is given.
Flammability : 0 - Minimal Hazard.
Physical : 0 - Minimal Hazard.

Party Responsible for the Preparation of This Document

AFCO
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Chambersburg, PA 17201
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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.

North America GHS SDS 2015 (U.S., Can., Mex.)