

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Chemical Name	Aluminum chloride hydroxide sulfate
CAS No.	39290-78-3
Trade Name	CoAg+ Plus
Product Code	None

Relevant identified uses of the substance or mixture and uses advised against

Identified Use(s)	Water Treatment Chemical
Uses Advised Against	None
Company Identification	Manufactured for Water Maze by Norhstar Chemical Inc. 14200 SW Tualatin Sherwood Rd Sherwood, OR 99140

Telephone	(503) 625-3770
Fax	(503) 625-1478

Emergency telephone number

Emergency Phone No.	CHEMTREC 24 hr. (800) 424-9300
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SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

OSHA HCS (29 CFR 1910.1200)	Met. Corr. 1; Eye Irrit. 2
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Label elements

Hazard Symbol



DANGER

Signal word(s)

Hazard Statement(s)

May be corrosive to metals.
Causes serious eye irritation.

Keep only in original container.
Avoid contact with skin and eyes.
Wear protective gloves/eye protection.
Wash hands and exposed skin after use.

IF INHALED: Get medical advice/attention if you feel unwell.
IF ON SKIN: Wash with plenty of soap and water. If irritation (redness, rash, blistering) develops, get medical attention.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation develops and persists, get medical attention.
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

None

Precautionary Statement(s)

Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)	% wt.*	CAS No.	Hazard classification
Aluminum chloride hydroxide sulfate	30 – 40	39290-78-3	Met. Corr. 1; H290 Eye Irrit. 2; H319
Proprietary Compound	5	Trade Secret	Aquatic Acute 3; H402 Aquatic Chronic 3; H412
Water	60 - 70	7732-18-5	Not classified as dangerous for supply/use.

Additional Information - Substances in the product which may present a health or environmental hazard, or which have been assigned occupational exposure limits, are detailed below: **None**

SECTION 4: FIRST AID MEASURES



Description of first aid measures

Inhalation	Get medical advice/attention if you feel unwell.
Skin Contact	Wash affected skin with soap and water. If irritation (redness, rash, blistering) develops, get medical attention.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation develops and persists, get medical attention.
Ingestion	Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed None

Indication of any immediate medical attention and special treatment needed IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

-Suitable Extinguishing Media Non-combustible. As appropriate for surrounding fire.
-Unsuitable Extinguishing Media None anticipated.

Special hazards arising from the substance or mixture

Combustion or thermal decomposition will evolve toxic and irritant vapours.

Advice for fire-fighters

A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Keep containers cool by spraying with water if exposed to fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. Wear protective gloves/eye protection.

Environmental precautions

Prevent liquid entering sewers, basements and work pits. Avoid release to the environment.

Methods and material for containment and cleaning up Cover spills with inert absorbent material. Transfer to a container for disposal or recovery.

Reference to other sections None

Additional Information None

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling Avoid contact with skin and eyes.

Conditions for safe storage, including any incompatibilities

-Storage temperature Keep in a cool, well ventilated place. Store at temperatures not exceeding 50°C / 122 °F. Protect from sunlight.

-Incompatible materials This product should be stored away from sources of strong heat, oxidizing chemicals, and reducing agents.

Specific end use(s) Water Treatment Chemical

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

SUBSTANCE.	CAS No.	(8hr TWA)		(STEL)		Note:
		PEL (OSHA)	TLV (ACGIH)	PEL (OSHA)	TLV (ACGIH)	
Aluminum chloride hydroxide sulfate, as Al	39290-78-3	15 mg/m3 ^(T) 5 mg/m3 ^(R)	1 mg/m3 ^(R)	-----	-----	-----

- ^(T) Total Particulate; ^(R) Respirable Particulate

Recommended monitoring method NIOSH 7013 (Aluminum and compounds, as Al)

Exposure controls

Appropriate engineering controls

Not normally required.

Personal protection equipment

Eye/face protection

Wear protective eyewear (goggles, face shield, or safety glasses).



Skin protection (Hand protection/ Other)

Wear suitable gloves if prolonged skin contact is likely. Check with protective equipment manufacturer's data.



Respiratory protection

Normally no personal respiratory protection is necessary. In case of insufficient ventilation, wear suitable respiratory equipment. Check with protective equipment manufacturer's data.



Thermal hazards

Not normally required. Use gloves with insulation for thermal protection, when needed.

Environmental Exposure Controls

Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Liquid
Color.	Almost colourless to pale yellow
Odor	None
Odor Threshold (ppm)	Not available
pH (Value)	4.0 - 4.5 (15% w/w)
Melting Point (°C) / Freezing Point (°C)	12 (53.6 °F)
Boiling point/boiling range (°C):	100 °C (212 °F)
Flash Point (°C)	Non-combustible
Evaporation Rate	Similar to water
Flammability (solid, gas)	Not applicable
Explosive Limit Ranges	Non-combustible
Vapor pressure (Pascal)	Similar to water
Vapor Density (Air=1)	Similar to water
Density (g/ml)	1.20 - 1.24
Solubility (Water)	Miscible
Solubility (Other)	Not available
Partition Coefficient (n-Octanol/water)	Not available
Auto Ignition Point (°C)	Non-combustible
Decomposition Temperature (°C)	Not available
Kinematic Viscosity (cSt)	Similar to water
Explosive properties	Not explosive
Oxidizing properties	Not oxidising
Other information	Not available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions.
Chemical stability	Stable.
Possibility of hazardous reactions	None anticipated.
Conditions to avoid	Incompatible materials.
Incompatible materials	Substances that react with water or aluminum.
Hazardous decomposition product(s)	None anticipated.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes: Inhalation, Skin Contact, Eye Contact

Polyaluminum Hydroxychlorosulfate (CAS No. 39290-78-3):

Acute toxicity	Oral LD50 > 5000 mg/kg (Rat) Dermal LD50 >2000 mg/kg (Rat)
Irritation / Corrosivity	Causes serious eye irritation.
Sensitisation	It is not a skin sensitiser.
Repeated dose toxicity	Not to be expected.
Carcinogenicity	It is unlikely to present a carcinogenic hazard to man.

NTP	IARC	ACGIH	OSHA	NIOSH
No.	No.	No.	No.	No.

Mutagenicity	Negative
Toxicity for reproduction	Not to be expected

Reproductive toxicity
Other information

Not to be expected
None known.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Proprietary Compound (CAS No. Trade Secret):

Short term

LC50 (96 hr): 10 - 100 mg/l (*Danio rerio*)

EC50 (48 hour): 38 mg/L (*Daphnia magna*)

Long Term

Not available.

Persistence and degradability

Not readily biodegradable.

Bioaccumulative potential

The product has no potential for bioaccumulation.

Mobility in soil

Not available.

Results of PBT and vPvB assessment

Not classified as PBT or vPvB.

Other adverse effects

Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.

SECTION 14: TRANSPORT INFORMATION

	<u>U.S. DOT</u>	<u>Sea transport (IMDG)</u>	<u>Air transport (ICAO/IATA)</u>
UN number	UN 1760	UN 1760	UN 1760
Proper Shipping Name	Corrosive liquids, n.o.s. (Aluminum chloride hydroxide sulfate), 8, III		
Transport hazard class(es)	8	8	8
Packing group	III	III	III
Environmental hazards	No.	No.	No.
Special precautions for user	None assigned	None assigned	None assigned

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:

TSCA (Toxic Substance Control Act) - Inventory Status: All components listed or polymer exempt.

Designated Hazardous Substances and Reportable Quantities (40 CFR 302.4):

Chemical Name	CAS No.	Typical %wt.	RQ (Pounds)
None	-----	-----	-----

SARA 311/312 - Hazard Categories:

Fire Sudden Release Reactivity Immediate (acute) Chronic (delayed)

SARA 313 - Toxic Chemicals (40 CFR 372):

Chemical Name	CAS No.	Typical %wt.
None	-----	-----

SARA 302 - Extremely Hazardous Substances (40 CFR 355):

Chemical Name	CAS No.	Typical %wt.	TPQ (pounds)
None	----	----	----

California Proposition 65 List:

Chemical Name	CAS No.	Type of Toxicity
None	-----	-----

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

Date of preparation: May 19, 2015

Hazard Statement(s) and Risk Phrases Listed in: SECTION 2:/ SECTION 3:

Hazard Statement(s)

- H290: May be corrosive to metals.
- H319: Causes serious eye irritation.

Training advice: None.

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