

Safety Data Sheet: CHEM-AQUA 81792

Supersedes Date 04/28/2010

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1. PRODUCT AND COMPANY IDENTIFICATION

Product Name CHEM-AQUA 81792
Recommended use Water treatment chemical
Information on Manufacturer
CHEM-AQUA, INC
BOX 152170
IRVING, TEXAS 75015

Product Code 0C70
Chemical nature Acidic Aqueous solution
Emergency Telephone Number
CHEMTREC® 800-424-9300
Telephone inquiry
972-579-2477

2. HAZARD IDENTIFICATION

Color Colorless - Slight Blue green

Physical State Liquid

Odor Odorless

GHS Classification

Physical Hazards

Substances/mixtures corrosive to metal

Category 1

Health Hazard

Acute Oral Toxicity

Category 4

Skin Corrosion/Irritation

Category 1

Serious Eye Damage/Eye Irritation

Category 1

Other hazards

None

Labeling

Signal Word

DANGER



Hazard Statements

H314 - Causes severe skin burns and eye damage

H302 - Harmful if swallowed

H290 - May be corrosive to metals

Precautionary Statements

P280 - Wear protective gloves, protective clothing, eye protection and face protection.

P264 - Wash face, hands and any exposed skin thoroughly after handling.

P363 - Wash contaminated clothing before reuse

P260 - Do not breathe mist

P270 - Do not eat, drink or smoke when using this product

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water or shower

P332 + P313 - If skin irritation occurs, get medical attention.

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 physician

P304 + P340 - IF INHALED: Remove person to fresh air and keep at rest in a position

comfortable for breathing.

P342 + P311 - If experiencing respiratory symptoms, call a physician

P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Call a physician if unwell.

P390 - Absorb spillage to prevent damage

P406 - Store in a corrosion-resistant container.

P501 - Dispose of contents and container in accordance with applicable regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
Aluminum Sulfate	10043-01-3	15-40
Poly(diallyldimethylammonium chloride)	26062-79-3	1-5

4. FIRST AID MEASURES

General advice	Do not get in eyes, on skin or on clothing. Do not breathe mist.
Eye Contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention immediately.
Skin Contact	Remove immediately all contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately.
Inhalation	Move to fresh air. In case of shortness of breath, give oxygen. If breathing has stopped, apply artificial respiration. Get medical attention immediately.
Ingestion	Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person.
Notes to physician	The product causes burns of eyes, skin and mucous membranes. Control of circulatory system, shock therapy if needed.

5. FIRE-FIGHTING MEASURES

Flash Point	> 201 °F / > 94 °C	Method	Estimated
Flammability Limits in Air % Hydrogen, by reaction with metals.		Upper 75	Lower 4
Suitable Extinguishing Media	Water spray. Carbon dioxide (CO ₂). Dry chemical. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.		
Specific hazards arising from the chemical	Contact with metals liberates flammable hydrogen gas. Material can create slippery conditions.		
Protective Equipment and Precautions for Firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.		
NFPA	Health 3	Flammability 0	Instability 0
HMIS	Health 3	Flammability 0	Instability 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Use personal protective equipment. Prevent further leakage or spillage if safe to do so.
Environmental Precautions	Do not flush into surface water or sanitary sewer system.
Methods for Containment	Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
Methods for Cleaning Up	Use clean non-sparking tools to collect absorbed material. Pick up and transfer to properly labeled containers.
Neutralizing Agent	Neutralize with lime milk or soda and flush with plenty of water.

7. HANDLING AND STORAGE

Handling	Do not get in eyes, on skin or on clothing. Do not breathe mist.			
Storage	Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Metal containers must be lined. Do not freeze.			
Storage Temperature	Minimum	40 °F / 4 °C	Maximum	86 °F / 30 °C
Storage Conditions	Indoor	X	Outdoor	Heated Refrigerated

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH
Aluminum Sulfate	No data available	No data available	TWA: 2 mg/m ³
Poly(diallyldimethylammonium chloride)	No data available	No data available	No data available

Engineering Measures	Use with local exhaust ventilation. Ensure adequate ventilation, especially in confined areas.
Personal Protective Equipment	
Eye/Face Protection	Tightly fitting safety goggles. Face-shield.
Skin Protection	Wear suitable protective clothing, Impervious gloves.
Respiratory Protection	In case of insufficient ventilation wear suitable respiratory equipment. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
General Hygiene Considerations	Ensure that eyewash stations and safety showers are close to the workstation location. Wear protective gloves/clothing. Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	Viscosity	Slight Viscous
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Color	Colorless - Slight Blue green	Odor	Odorless
Odor Threshold	Not applicable	Appearance	Transparent
pH	2	Specific Gravity	1.31
Evaporation Rate	0.44 (Butyl acetate=1)	Percent Volatile (Volume)	84
VOC Content (%)	0	VOC Content (g/L)	0
Vapor Pressure	13.4 mmHg @ 70°F	Vapor Density	0.6
Solubility	Completely soluble	n-Octanol/Water Partition	No data available
Melting Point/Range	No data available	Decomposition Temperature	No data available
Boiling Point/Range	> 212 °F / 100 °C	Flammability (solid, gas)	No data available
Flash Point	> 201 °F / > 94 °C	Method	Estimated
Autoignition Temperature	No information available.		
Flammability Limits in Air %	Hydrogen, by reaction with metals. Upper 75 Lower 4		

10. STABILITY AND REACTIVITY

Chemical Stability	Stable. Hazardous polymerization does not occur.
Conditions to Avoid	Contact with metals liberates hydrogen gas
Incompatible Products	Strong oxidizing agents, Bases, Metals.
Hazardous Decomposition Products	Carbon oxides, Nitrogen oxides (NOx), Sulfur oxides, Hydrogen chloride gas.
Possibility of Hazardous Reactions	None under normal processing

11. TOXICOLOGICAL INFORMATION

Product Information

The following values are calculated based on chapter 3.1 of the GHS document (Rev. 3, 2009):

Oral LD50	1,930 mg/kg (Rat)
Dermal LD50	No information available
Inhalation LC50	
Gas	No information available
Mist	No information available
Vapor	No information available

Principle Route of Exposure	Skin contact, Eye contact.
Primary Routes of Entry	Ingestion

Acute Effects

Eyes	Corrosive to the eyes and may cause severe damage including blindness.
Skin	Causes skin burns.
Inhalation	Harmful by inhalation. Causes burns.
Ingestion	If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach. May be fatal if swallowed.

Chronic Toxicity

Target Organ Effects	Inhaled corrosive substances can lead to a toxic edema of the lungs. Kidney injury may occur.
Aggravated Medical Conditions	Skin, Respiratory system, Kidney.

Skin disorders, Respiratory disorders, Kidney disorders.

Component Information

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
Aluminum Sulfate	= 1930 mg/kg (Rat)	no data available	no data available	no data available	no data available
Poly(diallyldimethylammonium chloride)	no data available	no data available	no data available	no data available	no data available

Chronic Toxicity

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Aluminum Sulfate	no data available	no data available	no data available	no data available	skin,respiratory system
Poly(diallyldimethylammonium chloride)	no data available	no data available	no data available	no data available	no data available

Carcinogenicity

Component	ACGIH	IARC	NTP	OSHA	Other
Aluminum Sulfate	not applicable	not applicable	not applicable	not applicable	not applicable
Poly(diallyldimethylammonium chloride)	not applicable	not applicable	not applicable	not applicable	not applicable

12. ECOLOGICAL INFORMATION

Product Information	No information available.
Component Information	

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Water Flea	log Pow
Aluminum Sulfate	no data available	LC50 = 100 mg/L <i>Carassius auratus</i> 96 h LC50 = 37 mg/L <i>Gambusia affinis</i> 96 h	no data available	EC50= 136 mg/L 15 min	N/A
Poly(diallyldimethylammonium chloride)	no data available	no data available	no data available	no data available	N/A

Persistence and Degradability No information available.
Bioaccumulation No information available.
Mobility No information available.

13. DISPOSAL CONSIDERATIONS

Product Disposal Dispose of in accordance with local regulations.
Container Disposal Empty containers should be taken for local recycling, recovery, or waste disposal.

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name Corrosive liquid, acidic, inorganic, n.o.s.
Hazard Class 8
UN-No UN3264
Packing Group III
Reportable Quantity (RQ) Aluminum sulfate, RQ kg= 8944.05
Description UN3264, Corrosive liquid, acidic, inorganic, n.o.s.(Aluminum sulfate solution), 8, PG III (Exceptions may exist under 49 CFR 173.154(d))

TDG

Hazard Class 8
UN-No UN3264
Packing Group III

ICAO

UN-No UN3264
Proper Shipping Name Corrosive liquid, acidic, inorganic, n.o.s.
Hazard Class 8
Packing Group III
Shipping Description UN3264, Corrosive liquid, acidic, inorganic, n.o.s.(Aluminum sulfate solution), 8, PG III

IATA

UN-No UN3264
Proper Shipping Name Corrosive liquid, acidic, inorganic, n.o.s.
Hazard Class 8
Packing Group III
ERG Code 8L
Shipping Description UN3264, Corrosive liquid, acidic, inorganic, n.o.s.(Aluminum sulfate solution), 8, PG III

IMDG/IMO

Proper Shipping Name Corrosive liquid, acidic, inorganic, n.o.s.
Hazard Class 8
UN-No UN3264
Packing Group III
EmS No. F-A, S-B
Shipping Description UN3264, Corrosive liquid, acidic, inorganic, n.o.s.(Aluminum sulfate solution), 8, PG III

15. REGULATORY INFORMATION

Inventories

TSCA Complies
DSL Complies

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Chronic Health Hazard	Fire Hazard	Sudden Release of Pressure Hazard	Reactive Hazard
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Yes	Yes	No	No	No
CERCLA				
Component		Hazardous Substances RQs		CERCLA EHS RQs
Aluminum Sulfate		5000 lb		Not applicable
Poly(diallyldimethylammonium chloride)		Not applicable		Not applicable

16. OTHER INFORMATION

Prepared By Angela Hutson
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Reason for Revision No information available.
Glossary No information available.
List of References. No information available.

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