

# SAFETY DATA SHEET

## Section 1. Identification

**GHS product identifier** : CA 82230

**Other means of identification** : Not available.

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

against Not available.

**Supplier's details:** Chem-Aqua  
PO Box 152170  
Irving, TX 75015  
972 438 0435

**Manufactured for Chem-Aqua  
by: Gulbrandsen  
Technologies**

**Emergency telephone number** : CHEMTREC, U.S. : 1-800-424-9300 International: +1-703-527-3887  
CCN# 9962

## Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

### GHS label elements

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : Causes serious eye damage.

### Precautionary statements

**Prevention** : Wear eye or face protection. Wash hands thoroughly after handling.

**Response** : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

**Storage** : Not applicable.

**Disposal** : Not applicable.

## Section 2. Hazards identification

**Hazards not otherwise classified** : None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

**Other means of identification** : Not available.

### CAS number/other identifiers

**CAS number** : Not applicable.

**Product code** : Not available.

Ingredient name	%	CAS number
Aluminum chloride hydroxide sulfate	10 - 30	39290-78-3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.

## Section 4. First aid measures

Loosen tight clothing such as a collar, tie, belt or

waistband. [Most important symptoms/effects, acute and delayed](#)

### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : May cause burns to mouth, throat and stomach.

### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Adverse symptoms may include the following: pain or irritation  
redness  
blistering may occur
- Ingestion** : Adverse symptoms may include the following: stomach pains

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.
- Specific hazards arising from the chemical** : No specific fire or explosion hazard.

## Section 5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
Sulfur oxides  
halogenated compounds  
metal oxide/oxides
- Special protective actions for fire-fighters** : No special measures are required.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

- Spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

## Section 7. Handling and storage

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

<b>Ingredient name</b>	<b>Exposure limits</b>
Aluminum chloride hydroxide sulfate	<b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 2 mg/m <sup>3</sup> , (as Al) 8 hours. <b>NIOSH REL (United States, 6/2009).</b> TWA: 2 mg/m <sup>3</sup> , (as Al) 10 hours.

**Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

## Section 8. Exposure controls/personal protection

**Respiratory protection** : Use a properly fitted, air-purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9. Physical and chemical properties

### Appearance

**Physical state** : Liquid.  
**Color** : Slightly Yellow.  
**Odor** : None  
**Odor threshold** : Not available.  
**pH** : 3  
**Melting point** : -12°C (10.4°F)  
**Boiling point** : 100°C (212°F)  
**Flash point** : Not applicable.  
**Burning time** : Not applicable.  
**Burning rate** : Not applicable.  
**Evaporation rate** : Not available.  
**Flammability (solid, gas)** : Not available.  
**Lower and upper explosive (flammable) limits** : Not available.  
**Vapor pressure** : 2.7 kPa (20 mm Hg) [room temperature]  
**Vapor density** : 1 [Air = 1]  
**Relative density** : 1.19 to 1.21  
**Solubility** : Easily soluble in the following materials: cold water and hot water.  
**Solubility in water** : Not available.  
**Partition coefficient: n octanol/water** : Not available.  
**Auto-ignition temperature** : Not available.  
**Decomposition temperature** : Not available.  
**SADT** : Not available.  
**Viscosity** : Not available.

## Section 10. Stability and reactivity

**Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability** : The product is stable.

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : No specific data.

## Section 10. Stability and reactivity

**Incompatible materials** : Reactive or incompatible with the following materials: oxidizing materials.

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

There is no data available.

#### Irritation/Corrosion

**Skin** : There is no data available.

**Eyes** : There is no data available.

**Respiratory** : There is no data available.

#### Sensitization

**Skin** : There is no data available.

**Respiratory** : There is no data available.

#### Mutagenicity

There is no data available.

#### Carcinogenicity

There is no data available.

#### Reproductive toxicity

There is no data available.

#### Teratogenicity

There is no data available.

#### Specific target organ toxicity (single exposure)

There is no data available.

#### Specific target organ toxicity (repeated exposure)

There is no data available.

#### Aspiration hazard

There is no data available.

**Information on the likely routes of exposure** : Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

**Eye contact** : Causes serious eye damage.

**Inhalation** : May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.

**Skin contact** : No known significant effects or critical hazards.

**Ingestion** : May cause burns to mouth, throat and stomach.

## Section 11. Toxicological information

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Adverse symptoms may include the following: pain or irritation  
redness  
blistering may occur
- Ingestion** : Adverse symptoms may include the following: stomach pains

### Delayed and immediate effects and also chronic effects from short and long term exposure Short term exposure

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

### Long term exposure

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

### Potential chronic health effects

- General** : No known significant effects or critical hazards.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

Acute toxicity estimates There is no data available.

## Section 12. Ecological information

### Toxicity

There is no data available.

### Persistence and degradability

There is no data available.

### Bioaccumulative potential



## Section 12. Ecological information

There is no data available.

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	<b>DOT Classification</b>	<b>IMDG</b>	<b>IATA</b>
<b>UN number</b>	UN3264	UN3264	UN3264
<b>UN proper shipping name</b>	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Aluminum chloride hydroxide sulfate)	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Aluminum chloride hydroxide sulfate)	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Aluminum chloride hydroxide sulfate)
<b>Transport hazard class(es)</b>	8	8	8
<b>Packing group</b>	III	III	III
<b>Environmental hazards</b>	No.	No.	No.
<b>Additional information</b>	-	-	-

**Special precautions for user** : **Transport within user's premises**: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## Section 14. Transport information

Transport in bulk according : Not available. to Annex II of MARPOL 73/78 and the IBC Code

## Section 15. Regulatory information

**U.S. Federal regulations** : TSCA 8(a) CDR Exempt/Partial exemption: Not determined  
United States inventory (TSCA 8b): All components are listed or exempted.

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : Immediate (acute) health hazard

#### Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Aluminum chloride hydroxide sulfate	10 - 30	No.	No.	Yes.	Yes.	No.

### State regulations

#### **Massachusetts**

#### **New York**

#### **New Jersey**

#### **Pennsylvania**

#### **California Prop. 65**

No products were found.

### International regulations

: None of the components are listed. None of the components are listed. None of the components are listed. The following components are listed: Aluminum chloride hydroxide sulfate

## Section 15. Regulatory information

<b>International lists</b>	: <b>Australia inventory (AICS)</b> : Not determined. <b>China inventory (IECSC)</b> : All components are listed or exempted. <b>Japan inventory</b> : Not determined. <b>Korea inventory</b> : All components are listed or exempted. <b>Malaysia Inventory (EHS Register)</b> : Not determined. <b>New Zealand Inventory of Chemicals (NZIoC)</b> : Not determined. <b>Philippines inventory (PICCS)</b> : Not determined. <b>Taiwan inventory (CSNN)</b> : Not determined.
<b>Chemical Weapons Convention List Schedule I Chemicals</b>	: Not listed
<b>Chemical Weapons Convention List Schedule II Chemicals</b>	: Not listed
<b>Chemical Weapons Convention List Schedule III Chemicals</b>	: Not listed

## Section 16. Other information

### History

**Date of issue mm/dd/yyyy** : 06/15/2014

**Version** : 1

**Revised Section(s)** : Not applicable.

**Prepared by** : KMK Regulatory Services Inc.

**Key to abbreviations** : ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
UN = United Nations

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.