Aluminum Chloride Hexahydrate,

SECTION 1 : Identification of the substance/mixture and of the supplier

Product name : **Aluminum Chloride Hexahydrate,**

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: **S25143**

Recommended uses of the product and uses restrictions on use:

Manufacturer Details:

AquaPhoenix Scientific
9 Barnhart Drive, Hanover, PA 17331

Supplier Details:

Fisher Science Education
15 Jet View Drive, Rochester, NY 14624

Emergency telephone number:

Fisher Science Education Emergency Telephone No.: 800-535-5053

SECTION 2 : Hazards identification

Classification of the substance or mixture:

Irritant
Specific target organ toxicity following single exposure, category 3

Corrosive
Serious eye damage, category 1
Skin corrosion, category 1B
Corrosive to metals, category 1

Chronic hazards to the aquatic environment, category 4

Aquatic Chronic 4
STOT. SE 3
Skin corrosion/irritation - Skin Corr. 1B
Eye Damage 1
Corrosive to metals

Signal word :Danger

Hazard statements:
May be corrosive to metals
Causes severe skin burns and eye damage
Causes serious eye damage
May cause respiratory irritation
May cause long lasting harmful effects to aquatic life

Precautionary statements:
If medical advice is needed, have product container or label at hand
Keep out of reach of children
Read label before use
Avoid breathing dust/fume/gas/mist/vapours/spray
Wash skin thoroughly after handling

Use only outdoors or in a well-ventilated area
Avoid release to the environment
Wear protective gloves/protective clothing/eye protection/face protection
Do not breathe dust/fume/gas/mist/vapours/spray
Keep only in original container
IF ON SKIN: Wash with soap and water
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Absorb spillage to prevent material damage
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing
Call a POISON CENTER or doctor/physician if you feel unwell
Specific treatment (see supplemental first aid instructions on this label)
If skin irritation occurs: Get medical advice/attention
If eye irritation persists get medical advice/attention
Take off contaminated clothing and wash before reuse
Immediately call a POISON CENTER or doctor/physician
Store locked up
Store in corrosive resistant stainless steel container with a resistant inner liner
Dispose of contents and container to an approved waste disposal plant

Other Non-GHS Classification:

WHMIS

E

NFPA/HMIS

NFPA SCALE (0-4)

HMIS RATINGS (0-4)

SECTION 3 : Composition/information on ingredients

Ingredients:		
CAS 7784-13-6	Aluminum Chloride Hexahydrate	100 %
		Percentages are by weight

SECTION 4 : First aid measures

Description of first aid measures

After inhalation: Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen.Loosen clothing and place exposed in a comfortable position.Seek medical attention.DO NOT use mouth-to-mouth resuscitation without a barrier device to prevent responder from receiving burns.

After skin contact: Wash hands and exposed skin with soap and plenty of water. Seek medical attention.Rinse or flush skin/hair gently with water for at least 30 minutes.

After eye contact: Protect unexposed eye.Remove contact lenses while rinsing.Rinse or flush eye gently with water for at least 30 minutes, lifting upper and lower lids.Seek immediate medical attention (ophthalmologist)

After swallowing: Rinse mouth with water.Do not induce vomiting. Never give anything by mouth to an unconscious person.Seek medical attention.Give alert victim sips of water

Most important symptoms and effects, both acute and delayed:

Shortness of breath.Headache.Nausea.Dizziness.Cough.Irritation/burns, all routes of exposure.May cause burns to the gastrointestinal tract. Causes chemical burns to the respiratory tract;Effects may be delayed

Indication of any immediate medical attention and special treatment needed:

If seeking medical attention provide SDS document to physician. Physician should treat symptomatically.

SECTION 5 : Firefighting measures

Extinguishing media

Suitable extinguishing agents: Use means most suitable for extinguishing surrounding fire. Substance is noncombustible

For safety reasons unsuitable extinguishing agents:

Special hazards arising from the substance or mixture:

Thermal decomposition can lead to release of irritating gases and vapors.Hydrogen chloride. Aluminum oxide

Advice for firefighters:

Protective equipment: Wear protective eyeware, gloves, and clothing. Refer to Section 8.Wear chemical protective clothing and positive pressure self-contained breathing apparatus (SCBA).

Additional information (precautions): Avoid inhaling gases, fumes, dust, mist, vapor, and aerosols. Avoid contact with skin, eyes, and clothing.Avoid generating dust.Provide appropriate exhaust ventilation at places where dust is formed.

SECTION 6 : Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation.Ensure that air-handling systems are operational.

Environmental precautions:

Should not be released into environment.Prevent from reaching drains, sewer, or waterway.

Methods and material for containment and cleaning up:

Pick up and arrange disposal without creating dust. Sweep up and shovel.Wear protective eyeware, gloves, and clothing. Refer to Section 8.Always obey local regulations.If necessary use trained response staff or contractor. Evacuate personnel to safe areas. Containerize for disposal. Refer to Section 13.Keep in suitable closed containers for disposal.

Reference to other sections:

SECTION 7 : Handling and storage

Precautions for safe handling:

Avoid contact with skin, eyes, and clothing.Follow good hygiene procedures when handling chemical materials. Refer to Section 8.Follow proper disposal methods. Refer to Section 13.Do not eat, drink, smoke, or use personal products when handling chemical substances.Avoid dust formation

Conditions for safe storage, including any incompatibilities:

Store in a cool location.Keep away from food and beverages.Protect from freezing and physical damage.Provide ventilation for containers. Keep container tightly sealed. Store away from incompatible materials. Store only in original container. Store locked up

SECTION 8 : Exposure controls/personal protection



Control Parameters: 7784-13-6, Aluminium chloride hexahydrate, TWA 2 mg/m3 USA. OSHA
7784-13-6, Aluminium chloride hexahydrate , TWA 2 mg/m3 USA. NIOSH
, Nuisance dust, ACGIH TLV TWA:10mg/m3 (inhalable particles)
, Nuisance dust, OSHA PEL TWA: 15 mg/m3 (total dust)

Appropriate Engineering controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.Use under fume hood designed for hazardous chemicals with an average face velocity of 100 feet per minute or greater.

Respiratory protection: Not required under normal conditions of use. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls.When necessary use NIOSH approved breathing equipment. Use under fume hood.

Protection of skin: Select glove material impermeable and resistant to the substance.Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves.Wear protective clothing.

Eye protection: Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).Safety glasses or goggles are appropriate eye protection.

General hygienic measures: Perform routine housekeeping.Wash hands before breaks and immediately after handling the product.Avoid contact with skin, eyes, and clothing.Before rewearing wash contaminated clothing.

SECTION 9 : Physical and chemical properties

Appearance (physical state,color):	White solid	**Explosion limit lower**: **Explosion limit upper**:	Not Determine. Not Determine.
Odor:	Pungent odor	**Vapor pressure**:	1 hPa at 100 °C
Odor threshold:	Not Determine.	**Vapor density**:	Not Determine.

pH-value:	2.5 - 3.5 at 20 °C	**Relative density**:	2.398 g/cm3
Melting/Freezing point:	181C	**Solubilities**:	
Boiling point/Boiling range:	Not Determine.	**Partition coefficient (n-octanol/water)**:	Not Determine.
Flash point (closed cup):	Not Determine.	**Auto/Self-ignition temperature**:	Not Determine.
Evaporation rate:	Not Determine.	**Decomposition temperature**:	Not Determine.
Flammability (solid,gaseous):	Not Determine.	**Viscosity**:	a. Kinematic:Not Determine. b. Dynamic: Not Determine.
Density: Not Determine.			

SECTION 10 : Stability and reactivity

Reactivity: Nonreactive under normal conditions.
Chemical stability: Stable at room temperature in closed containers under normal storage and handling conditions
Possible hazardous reactions: None under normal processing.
Conditions to avoid: Moisture sensitive.Incompatible materials.Excess heat, dust formation, contact with water, alkaline materials
Incompatible materials: Excess heat, dust formation, contact with water, alkaline materials. Water, organic materials
Hazardous decomposition products: Hydrogen chloride, aluminum oxide, irritating and toxic fumes and gases

SECTION 11 : Toxicological information

Acute Toxicity:		
Oral:	LD50: 3311 mg/kg (rat)	Aluminum Chloride Hexahydrate (7784-13-6)
Oral:	7784-13-6	LD50 Rat oral 3300 mg/kg bw /Hexahydrate
Chronic Toxicity: No additional information.		
Corrosion Irritation: No additional information.		
Sensitization:		No additional information.
Single Target Organ (STOT):		7784-13-6: Inhalation - May cause respiratory irritation.
Numerical Measures:		No additional information.
Carcinogenicity:		No additional information.
Mutagenicity:		7784-13-6: Mammal lymphocyte DNA damage
Reproductive Toxicity:		7784-13-6: Developmental Toxicity - Mouse - Intravenous Specific Developmental Abnormalities: Musculoskeletal system.

SECTION 12 : Ecological information

Ecotoxicity

7784-13-6: LC50 - other fish - 27.1 mg/l - 96 h

7784-13-6: EC50 - Daphnia magna (Water flea) - 27.3 mg/l - 48 h

7784-13-6: Crustacea LC50 (48 hr) Daphnia magna (Water flea, age: <24 hr) 3.9 mg/L

7784-13-6: Crustacea LC50 (96hr) Polychaete Ctenodrilus serratus 0.48 mg/L

Persistence and degradability:
Bioaccumulative potential:
Mobility in soil:
Other adverse effects: 7784-13-6: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.7784-13-6: May be harmful to aquatic organisms due to the shift of the pH. Avoid release to the environment.7784-13-6: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lasting effects.

SECTION 13 : Disposal considerations

Waste disposal recommendations:

Contact a licensed professional waste disposal service to dispose of this material.Dispose of empty containers as unused product.Product or containers must not be disposed together with household garbage. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

SECTION 14 : Transport information

UN-Number

1726

UN proper shipping name

Aluminum Chloride

Transport hazard class(es)

Class:
8 Corrosive substances

Packing group:II
Environmental hazard:
Transport in bulk:
Special precautions for user:

SECTION 15 : Regulatory information

United States (USA)

SARA Section 311/312 (Specific toxic chemical listings):

Reactive, Acute, Chronic

SARA Section 313 (Specific toxic chemical listings):

None of the ingredients is listed

RCRA (hazardous waste code):

None of the ingredients is listed

TSCA (Toxic Substances Control Act):

All ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):

None of the ingredients is listed

Proposition 65 (California):

Chemicals known to cause cancer:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed

Chemicals known to cause developmental toxicity:

None of the ingredients is listed

Canada

Canadian Domestic Substances List (DSL):

All ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 0.1%):

None of the ingredients is listed

Canadian NPRI Ingredient Disclosure list (limit 1%):

None of the ingredients is listed

SECTION 16 : Other information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note: . The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment.The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

GHS Full Text Phrases:

Abbreviations and acronyms:

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