SAFETY DATA SHEET

Aqua PAC

SECTION 1: IDENTIFICATION

Product identifier used on a label:	**Aqua PAC**
Product code:	5094
Recommended use of the chemical and restrictions on use:	Coagulant for water treatment.
Chemical family:	Mixture.
Name, address and phone # of supplier:	Aqua Bond Inc. 440 Passmore ave. Scarborough, ON, M1V 5J8 (416) 754-7211
24 Hr. Emergency phone #	**CANUTEC (613) 996-6666**

SECTION 2: HAZARDS IDENTIFICATION

Classification of the chemical: This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Hazard classification:
SKIN IRRITATION- CATEGORY 2
EYE IRRITATION- CATEGORY 2
STOT-SE- CATEGORY 3 (respiratory irritation)

Label elements:



Signal word: WARNING

Hazard statements:
H315 Causes skin irritation
H320 Causes eye irritation
H335 May cause respiratory irritation

Precautionary statements:
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves.
P261 Avoid breathing fumes/vapours.
P271 Use only outdoors or in a well-ventilated area.
P302+P352 IF ON SKIN: Wash with plenty of water.
P332+P313 If skin irritation occurs: Get medical advice.
P362+P364 Take off contaminated clothing and wash it before reuse.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER if you feel unwell.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.
P501 Dispose of contents in accordance with local/regional/national and international regulations.

Other hazards: None known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/ mixture: Mixture

Ingredient name	**CAS Number**	**Concentration (%)**
Aluminum chloride hydroxide sulphate	39290-78-3	15-40

Concentrations are shown as ranges due to batch variation.

SECTION 4: FIRST-AID MEASURES

Description of first aid measures:

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Inhalation: If inhaled, remove to fresh air. If breathing is difficult, administer oxygen if available. Seek medical attention if irritation persists.

Skin contact: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash skin with soap and water. Do not reuse clothing or shoes until cleaned. If irritation develops, seek medical attention.

Eye contact: Get medical attention immediately. Call a poison center or physician. Check for and remove any contact lenses. Immediately flush eyes with running water for at least 30 minutes, keeping eyelids open.

Most important symptoms and effects, both acute and delayed:
The product is an irritant to skin and eyes. May cause itchiness, burning sensation and redness.
Indication of any immediate medical attention and special treatment needed:
Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media:

Suitable: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable: None known.

Special hazards arising from the substance: None known.

Hazardous thermal decomposition products: Hydrogen chloride, aluminum oxides, oxides of sulphur are products of combustion.

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

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:	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 vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
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:	Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. Large 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.
Special spill response procedures:	In case of transportation accident, contact CHEMTREC at 1-800-424-9300.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling:	Put on appropriate personal protective equipment. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. 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.
Conditions for safe storage:	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials, food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be resealed and kept upright. Do not store in unlabeled containers.
Incompatible materials:	Mineral acids, bases, metals such as iron or steel, which are subject to corrosion, carbon steel, aluminum, carbon, brasses, nylon.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:	
Exposure limits:	Not established.
Engineering controls:	Good ventilation is recommended to avoid excessive exposure to mists.
Individual protection measures:	Eyes/face: Chemical splash goggles and face shield. Skin: 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. 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. Respiratory: Wear appropriate respirator when ventilation is inadequate. Be sure to use a NIOSH approved respirator or equivalent.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid. Colourless to amber.
Odor:	Slight.
Odor threshold:	Not available.
pH:	1.8-3.4
Melting point:	Not available.
Freezing point:	-12°C
Initial boiling point and boiling range:	102°C
Flash point:	Not applicable.
Evaporation rate:	Not available.
Flammability:	Not flammable.
Upper and lower flammability limits:	Not applicable.
Vapour pressure:	17 mmHg @ 20°C
Vapour density:	1.3
Relative density:	1.16-1.30
Solubility:	Soluble in water.
Partition coefficient n-octanol/water:	Not available.
Auto-ignition temperature:	Not available.
Decomposition temperature:	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:	Stable.
Possibility of hazardous reactions:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid:	High temperature.

Incompatible materials:	Mineral acids, bases, metals such as iron or steel, which are subject to corrosion, carbon steel, aluminum, carbon, brasses, nylon.
Hazardous decomposition products:	Oxides of sulphur, aluminum. Hydrogen chloride.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on the likely routes of exposure:	SKIN AND EYES: yes INHALATION: yes INGESTION: yes
Potential health effects (acute):	EYE: Causes irritation with symptoms of itching, burning and redness. INHALATION: Causes irritation of the respiratory tract through prolonged exposure. SKIN: Causes irritation of the skin. Symptoms include itching, redness, swelling of the tissue. Severity depends on duration of exposure. INGESTION: Harmful if swallowed. Can cause upset stomach.
Delayed and immediate effects, chronic effects from short and long term exposure:	Long term exposure causes irritation of the respiratory system.
Potential chronic health effects:	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.
Sensitization:	There are no data available on the mixture itself.

Toxicological effects:

Acute toxicity:

Product	**Result**	**Species**	**Dose**	**Exposure**
Aluminum chloride hydroxide sulphate	LD50 oral	Rat	2360mg/kg	-
	LD50 dermal	Rat	>2000mg/kg	-
	LC50 inhalation	Rat	>5mg/L	4 hours

Irritation/corrosion:	Irritating to skin and eyes.
Specific target organ toxicity single exposure:	Not available.
Specific target organ toxicity repeated exposure:	Not available.
Aspiration hazard:	Not available.

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Name	**Result**	**Species**	**Exposure**
Aluminum chloride	LC50 1460-1500mg/L	Leuciscus idus melanotus	48 hours

hydroxide sulphate

Persistence and degradability: Not available.

Bioaccumulative potential: Not available.

Mobility in soil: Not available.

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 at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and nonrecyclable 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 emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: TRANSPORT INFORMATION

	TDG
UN Number:	UN3264
UN proper shipping name:	Corrosive liquid, acidic, inorganic, N.O.S. (Aluminum chloride hydroxide sulphate)
Transport hazard class:	8
Packing group:	III
Environmental hazard:	No.
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 15: REGULATORY INFORMATION

Canada inventory (DSL): All components are listed on DSL.

SECTION 16: OTHER INFORMATION

Revision date: April 12, 2017

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 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

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