

# Kemira

# WWT 6000

MSDS: 0079500  
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Revision Date:

## MATERIAL SAFETY DATA SHEET

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Kemira PAX-XL8  
**Synonyms:** Polyaluminum chloride; Polyhydroxysulphatoaluminum chloride  
**Product Description:** Aluminum chloride hydroxide sulfate solution  
**Molecular Formula:** Al<sub>13</sub>(OH)<sub>27</sub> 5(SO<sub>4</sub>)<sub>2</sub>Cl<sub>9.5</sub>  
**Intended/Recommended Use:** Coagulant for potable water treatment

KEMIRA WATER SOLUTIONS, INC., 808 EAST MAIN STREET, LAKELAND, FLORIDA 33801, USA  
For Product Information call 1-800/879-6353. Outside the USA and Canada call 1-785/842-7424.  
EMERGENCY PHONE: For emergency involving spill, leak, fire, exposure or accident call CHEMTREC: 1-800/424-9300.  
Outside the USA and Canada call 1-703/527-3887.

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

#### OSHA REGULATED COMPONENTS

Component / CAS No.	%	(w/w)	OSHA (PEL):	ACGIH (TLV)	Carcinogen
Aluminum chloride hydroxide sulfate 39290-78-3	15 - 40		Not established	Not established	-

### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

#### APPEARANCE AND ODOR:

Color: Clear amber or colorless  
Appearance: liquid  
Odor: slight

#### STATEMENTS OF HAZARD:

WARNING! IRRITATING TO EYES, SKIN, RESPIRATORY AND DIGESTIVE TRACTS

#### POTENTIAL HEALTH EFFECTS

##### EFFECTS OF EXPOSURE:

The acute oral (rat) LD50 is estimated to be >5000 mg/kg. Direct contact with this material may cause moderate-severe eye and skin irritation. Inhalation overexposure to the mist or vapor may cause respiratory tract irritation. Refer to Section 11 for toxicology information on the regulated components of this product.

### 4. FIRST AID MEASURES

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### Ingestion:

If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person. Give one or two glasses of water to drink and refer to medical personnel or take direction from either a physician or a poison control center.

### Skin Contact:

Remove contaminated clothing and shoes without delay. Wash immediately with plenty of water. Do not reuse contaminated clothing without laundering. Get medical attention if pain or irritation persists after washing or if signs and symptoms of overexposure appear.

### Eye Contact:

In case of eye contact, immediately irrigate with plenty of water for 15 minutes. Obtain medical attention without delay for any symptoms of injury to the eye.

### Inhalation:

Remove to fresh air. If breathing is difficult, give oxygen. Apply artificial respiration if patient is not breathing. Obtain medical attention immediately.

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## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media:

The substance is not combustible. Use extinguishing media appropriate to the surrounding fire.

NOTE: Also see "Section 10 - Stability and Reactivity"

### Protective Equipment:

Firefighters, and others exposed, wear self-contained breathing apparatus. Wear full firefighting protective clothing. See MSDS Section 8 (Exposure Controls/Personal Protection).

### Special Hazards:

Keep containers cool by spraying with water if exposed to fire. During a fire, irritating/toxic and corrosive fumes may evolve. Decomposition releases may include hydrogen chlorides, aluminum oxides, and oxides of sulfur.

### Mechanical/Static Sensitivity Statements:

None

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## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions:

'Restrict access until clean-up operations are complete. Wear appropriate Personal Protective Equipment per Section 8.  
'Ensure trained personnel conduct clean up and wear Personal Protective Equipment per Section 8.  
'Stop leak if possible. Avoid personal risk.

### Methods For Cleaning Up:

'Small Spills - Absorb spill with clay or dry material or neutralize with lime, limestone or soda ash and collect in appropriate container for disposal. Neutralization with soda ash can generate carbon dioxide so additional ventilation may be necessary.

'Large Spills - Prevent entry into sewers and confined areas. Dike, if possible. Keep unnecessary people away, isolate area and deny entry. Pump liquid material into appropriate vessels as possible or absorb spill with clay absorbents or non-reactive dry materials and collect in appropriate container for disposal.

Neutralize spill residuals carefully with lime, limestone, or soda ash and collect in suitable container for disposal. Flush area with water. This could generate carbon dioxide so additional ventilation may be necessary.

'Notify Authorities if release exceeds reportable quantity per Section 15

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## 7. HANDLING AND STORAGE

### HANDLING

**Precautionary Measures:** Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

**Special Handling Statements:** Review the label, this MSDS and any other applicable information before use. Keep separated from incompatible substances. Use appropriate Personal Protective Equipment per Section 8. Handle only with equipment, materials and supplies specified by their manufacturer as being compatible and appropriate for use with this product.

### STORAGE

Material may be stored in tightly closed shipping containers, preferably the supplier's containers. Containers of this material may be hazardous when empty, since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product. Do not use metal containers. Store in dry rubber lined, plastic, or FRP vessels.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Engineering Measures:

Where this material is not used in a closed system, good enclosure and local exhaust ventilation should be provided to control exposure.

### Respiratory Protection:

Where exposures are below the established exposure limit, no respiratory protection is required. Where exposures exceed the established exposure limit, use respiratory protection recommended for the material and level of exposure.

### Eye Protection:

Wear eye/face protection such as chemical splash proof goggles or face shield. Eyewash equipment and safety shower should be provided in areas of potential exposure.

### Skin Protection:

Avoid skin contact. Wear impermeable gloves and suitable protective clothing.

### Additional Advice:

Food, beverages, and tobacco products should not be carried, stored, or consumed where this material is in use. Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	Clear amber or colorless
Appearance:	liquid
Odor:	slight
Boiling Point:	~102 °C
Melting Point:	~-12 °C      10 °F
Vapor Pressure:	17 mm Hg @ 20 °C
Specific Gravity/Density:	1.18 - 1.28
Vapor Density:	1.3
Percent Volatile (% by wt.):	Not available
pH:	2.1 - 3.1
Saturation In Air (% By Vol.):	Not applicable
Evaporation Rate:	Not applicable
Solubility In Water:	Complete
Volatile Organic Content:	None
Flash Point:	Not applicable
Flammable Limits (% By Vol):	Not applicable
Autoignition Temperature:	Not applicable

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Decomposition Temperature:	Not available
Partition coefficient (n-octanol/water):	Not available
Odor Threshold:	Not available

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## 10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions To Avoid:	Avoid contact with mineral acids, excessive heat and bases/alkalis.
Polymerization:	Will not occur
Conditions To Avoid:	None known
Materials To Avoid:	Metals such as iron or steel which are subject to corrosion. Carbon steel, aluminum, carbon, brasses, and nylon.
Hazardous Decomposition Products:	Thermal decomposition: after completely dry and heated to decomposition will produce sulfur oxides and aluminum oxides as well as HCL gas.

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## 11. TOXICOLOGICAL INFORMATION

Toxicological information for the product is found under Section 3. HAZARDS IDENTIFICATION.  
Toxicological information on the regulated components of this product is as follows:

Aluminim chloride hydroxide sulfate has an acute oral (rat) LD50 of >5000 mg/kg. Direct contact with eyes or skin may cause moderate irritation of the eyes and skin.

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## 12. ECOLOGICAL INFORMATION

### FISH TEST RESULTS

**Test:**  
FISH TEST RESULTS

**Test:**  
**Duration:** 96 hr.  
**Species:** Fathead Minnow (*Pimephales promelas*)  
1074 ppm LC50  
20ppm NOEC

**Duration:** 96 hr  
**Species:** Rainbow Trout (*Oncorhynchus mykiss*)  
1768 ppm LC50

**Duration:** 48hr **Procedure:** Static  
**Species:** Golden Orf (*Leuciscus idus melanotous*)  
1460 - 1500 mg/l LC50

### INVERTEBRATE TEST RESULTS

**Test:**  
INVERTEBRATE TEST RESULTS

**Test:**  
**Duration:** 48 hr  
**Species:** Water Flea (*Daphnia magna*)  
1698 ppm LC50

**Duration:** 48 hr  
**Species:** Water Flea (*Ceriodaphnia dubia*)  
1106 ppm LC50  
625 ppm NOEC  
1250 ppm LOEC

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## 13. DISPOSAL CONSIDERATIONS

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The information on RCRA waste classification and disposal methodology provided below applies only to the product, as supplied. If the material has been altered or contaminated, or it has exceeded its recommended shelf life, the guidance may be inapplicable. Hazardous waste classification under federal regulations (40 CFR Part 261 et seq) is dependent upon whether a material is a RCRA "listed hazardous waste" or has any of the four RCRA "hazardous waste characteristics." Refer to 40 CFR Part 261.33 to determine if a given material to be disposed of is a RCRA "listed hazardous waste"; information contained in Section 15 of this MSDS is not intended to indicate if the product is a "listed hazardous waste." RCRA Hazardous Waste Characteristics: There are four characteristics defined in 40 CFR Section 261.21-61.24: Ignitability, Corrosivity, Reactivity, and Toxicity. To determine Ignitability, see Section 9 of this MSDS (flash point). For Corrosivity, see Sections 9 and 14 (pH and DOT corrosivity). For Reactivity, see Section 10 (incompatible materials). For Toxicity, see Section 2 (composition). Federal regulations are subject to change. State and local requirements, which may differ from or be more stringent than the federal regulations, may also apply to the classification of the material if it is to be disposed. The Company encourages the recycle, recovery and reuse of materials, where permitted, as an alternate to disposal as a waste. The Company recommends that organic materials classified as RCRA hazardous wastes be disposed of by thermal treatment or incineration at EPA approved facilities. The Company has provided the foregoing for information only; the person generating the waste is responsible for determining the waste classification and disposal method.

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### 14. TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

#### US DOT

Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s.  
Hazard Class: 8  
Packing Group: III  
UN/ID Number: UN3264  
Transport Label Required: Corrosive  
Technical Name (N.O.S.): Aluminum chloride hydroxide sulfate  
Hazardous Substances:  
Not applicable

#### TRANSPORT CANADA

Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s.  
Hazard Class: 8  
Packing Group: III  
UN Number: UN3264  
Transport Label Required: Corrosive  
Technical Name (N.O.S.): Aluminum chloride hydroxide sulfate

#### ICAO / IATA

Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s.  
Hazard Class: 8  
Packing Group: III  
UN Number: UN3264  
Transport Label Required: Corrosive  
Packing Instructions/Maximum Net Quantity Per Package:  
Passenger Aircraft: -; See regulations  
Cargo Aircraft: -; See regulations  
Technical Name (N.O.S.): Aluminum chloride hydroxide sulfate

#### IMO

Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s.  
Hazard Class: 8  
UN Number: UN3264

Packing Group: III  
 Transport Label Required: Corrosive  
 Technical Name (N.O.S.): Aluminum chloride hydroxide sulfate

## 15. REGULATORY INFORMATION

### INVENTORY INFORMATION

**United States (USA):** All components of this product are included on the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical Inventory.

**Canada:** All components of this product are included on the Domestic Substances List (DSL) or are not required to be listed on the DSL.

**European Union (EU):** All components of this product are included on the European Inventory of Existing Chemical Substances (EINECS) or are not required to be listed on EINECS.

### OTHER ENVIRONMENTAL INFORMATION

The following components of this product may be subject to reporting requirements pursuant to Section 313 of CERCLA (40 CFR 372), Section 12(b) of TSCA, or may be subject to release reporting requirements (40 CFR 307, 40 CFR 311, etc.) See Section 13 for information on waste classification and waste disposal of this product.

Component / CAS No.	%	TPQ (lbs)	RQ(lbs)	S313	TSCA 12B
Aluminum chloride hydroxide sulfate 39290-78-3	15 - 40	None		No	

This product does not contain any components regulated under these sections of the EPA

### PRODUCT HAZARD CLASSIFICATION UNDER SECTION 311 OF SARA

- Acute

## 16. OTHER INFORMATION

### NFPA Hazard Rating (National Fire Protection Association)

Health: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

Fire: 0 - Materials that will not burn.

Reactivity: 1 - Materials that in themselves are normally stable, but that can become unstable at elevated temperatures and pressures.

Reasons For Issue: New Format

Richard Moye, Product Regulatory, 1-251-662-1581  
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