



Inorganic Coagulant Solve 50A

Material Safety Data Sheet

Date Issued: 10/2/2009

Date Revised: 10/2/2009

COMPANY: WaterSolve, LLC, 4964 Starr St. S.E. Grand Rapids, MI 49546, USA
For Product information call 616-575-8693.

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night
Within USA and Canada: 1-800-424-9300
Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

I. PRODUCT IDENTIFICATION

Product Name: **Solve 50A**
Chemical Type: Polyaluminum hydroxychloride Solution

II. HAZARDS IDENTIFICATION

Emergency Overview: A clear amber liquid with very little odor. Can irritate skin and eyes. Not flammable, but may release toxic vapors if decomposed in a fire.

OSHA Hazard Communication Standard: This product is considered hazardous under the OSHA Hazard Communication Standard.

Potential Health Effects:

Skin: May cause skin irritation.
Eye Contact: May irritate or burn the eyes.
Inhalation: May cause irritation to the respiratory tract.
Ingestion: Can irritate or burn digestive tract
Delayed Effects: None known.

III. COMPOSITION /INFORMATION ON INGREDIENTS

| COMPONENT | CAS-No. | WEIGHT % |
|-----------------------------|-----------|----------|
| Poyaluminum Hydroxychloride | 1327-41-9 | <40 |
| Water | 7732-18-5 | >60 |

IV. FIRST AID MEASURES

Eye Contact: Do not rub. Immediately flush eyes gently for 15 minutes with plenty of water. May irritate or burn the eyes. Get medical attention if irritation persists. .

Skin Contact: Flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash contaminated clothing before reuse.

Inhalation: Remove person from exposure area to fresh air. Seek medical attention if needed. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion: Do not induce vomiting. Immediately give large quantities of water. Never give anything by mouth to unconscious individual. Seek immediate medical attention.

Delayed Effects: None known.

Advice to Physician Treat symptomatically.

V. FIRE-FIGHTING MEASURES

Flashpoint: Not flammable
Autoignition Temperature: Not applicable
Flash point method: Not applicable
Upper and lower flame limit: Not applicable
Flame propagation rate (solids): Not applicable
OSHA Flammability class: Not applicable

Suitable Extinguishing Agents: All standard agents.
Unsuitable Extinguishing Media: No information available.

Explosion Limits

Hazardous Combustion Products : No information available.
Impact sensitivity: No information available.
Sensitivity to static discharge: No information available.
Specific Hazards Arising from the Chemical:
Keep product and empty container away from heat and sources of ignition.
Fire Fighting Precautions: Use extinguishing media as appropriate for surrounding fire
Special Fire Fighting Precautions: Wear Self-contained breathing apparatus (SCBA) and full protective equipment. Cool exposed containers with water spray.

VI. STORAGE AND HANDLING

Storage:

Keep storage container tightly closed. Store in cool, dry well ventilated area or cabinet. Isolate from incompatible substances. Avoid contact with skin, eyes and clothing. Do not breathe product mists.

Handling:

Keep container tightly closed when not in use. Avoid contact with skin, eyes and on clothing. Avoid breathing vapor or mist. Remove contained clothing and wash thoroughly after handling.

VII. ACCIDENTAL RELEASE MEASURES/WASTE DISPOSAL

Spill or Leak Procedures:

Contain large spills with clay or other inert materials. If permitted by regulation, neutralize with alkali. Carbon dioxide may evolve if neutralized with carbonates (e.g. soda ash). Take precautions to minimize hazards from the release of carbon dioxide. Wear protective clothing and equipment when cleaning up spill.

Waste Disposal:

Dispose of waste in accordance with applicable federal, state, and local laws.

Spills and releases may have to be reported to Federal and/or local authorities.

VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION MEASURES

| COMPONENT | ACGIH TLV | OSHA PEL | Ontario TWAEV | Mexico OEL (TWA) | NIOSH IDLH |
|--|-----------|----------|---------------|-------------------------|------------|
| Polyaluminum Hydroxychloride 1327-41-9 | | | | TWA: 2mg/m ³ | |
| Water 7732-18-5 | | | | | |

Engineering Measures: Use local exhaust to keep airborne concentrations below the permissible exposure limits.

Personal Protection Equipment:

Eye Protection: Chemical splash goggles and face shield. Eye wash station should be readily available. Do not wear contact lenses.

Skin Protection: Wear rubber gloves and apron, long sleeved shirts, trousers and boots. If prolonged or repeated contact is anticipated, all clothing should be impervious to liquid.

Respiratory Protection: A respiratory protecting program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed when ever workplace conditions warrant respirator use. Wear NIOSH/OSHA approved respirator s, "Respirator Decision Logic", may be useful in determining the suitability of various types of respirators.

General Hygiene Considerations:

To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product. Eyewash and safety showers are recommended.

PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|-----------------------------|
| Color: | Clear, light green or amber |
| Physical State: | liquid |
| Chemical Formula: | Mixture |
| Odor: | Odorless |
| Solubility in water (weight%) | 100% |
| Melting point: | 14 °F (-10 °C) |
| Boiling point: | 234.5 °F (112.5 °C) |
| Flammability limits in air: | No information available |
| Explosive Properties: | No information available |
| Oxidizing Properties: | No information available |
| Evaporation Rate: | Not determined |
| Solubility: | No information available |
| Partition Coefficient (n-octanol/water): | No information available |
| PH: | 1.4 |
| Specific gravity: | 1.3 |
| Vapor pressure | Not applicable |
| Vapor density (air=1.0) | Not applicable |
| Evaporation rate: | Not applicable |
| Viscosity: | No information available |
| Molecular Weight: | Mixture |
| % Volatiles: | 80% |
| Flash point: | Not flammable |
| Autoignition temperature: | Not applicable |

IX. STABILITY AND REACTIVITY

Normal Stable (Conditions to Avoid): Stable under normal conditions of use and storage.

Incompatible Products: Alkalis and water reactive materials such as oleum.

Haz. Decomposition Products: When evaporated to dryness and exposed to extreme heat, may evolve irritating and toxic vapors.

Hazardous Polymerization: Will not occur under normal temperatures and pressures.

X. TOXICOLOGICAL INFORMATION

Acute Toxicity

LD50 oral: Polyaluminum hydroxychloride: (oral-rat): 3,000 mg/kg

Component Information

| Component | LD Oral | LD Dermal | LC50 Inhalation |
|-----------|-------------------|-----------|-----------------|
| Water | 90000 mL/kg (Rat) | | |

Irritation: No information available.

Corrosivity: No information available.

Sensitization: No information available.

Chronic Toxicity

Carcinogenicity: There are no known carcinogenic chemicals in this product.

Mutagenic effects: No information available.

Reproductive effects: No information available.

Developmental effects: No information available.

Teratogenicity: No information available.

Target organ effects: No information available.

Endocrine disruptor information: No information available.

XI. ECOLOGICAL INFORMATION

Ecotoxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Persistence and Degradability: No information available.

Bioaccumulation: No information available.

Mobility in Environmental Media: No information available.

XII. DISPOSAL CONSIDERATIONS

Waste Disposal Methods: If permitted by regulations, material may be neutralized with alkali.

Contaminated Packaging: Empty containers should be taken for local recycling, recovery or waste disposal.

US EPA Waste Number: No information available.

| Component/ CAS. # | RCRA- basis for listing | RCRA-D Series Wastes | RCRA- U Series Wastes | RCRA-F Series Wastes | RCRA-P series Waste | RCRA- K Series Waste |
|---|-------------------------------|----------------------------|-----------------------------|----------------------------|---------------------------|----------------------------|
| Poyaluminum Hydroxychloride 1327-41-9 | | | | | | |
| Water 7732-18-5 | | | | | | |

XIII. Transportation Information

DOT: Not regulated
 TDG: Not regulated

XIV. REGULATORY INFORMATION

International Inventories

TSCA complies
 DSL complies
 NDSL Does not comply
 EINECS/ELINCS complies
 ENCS complies
 CHINA complies
 KECL complies
 PICCS complies
 AICS complies

U. S. Federal Regulations

SARA 313

Section 313 of Title III of 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 40n of the Code of Federal Regulations, Part 372.

SARA 311-312 Hazardous Categorization

Chronic Health Hazard No
 Acute Health Hazard Yes
 Fire Hazard No
 Sudden release of pressure Hazard No
 Reactive Hazard No

Clean Water Act

CERCLA

U. S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

State Right-To-Know

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|------------------------------|---------------|------------|--------------|----------|--------------|
| Polyaluminum Hydroxychloride | | | x | | |

Other International Regulations

Mexico-Grade No information available.

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

E Corrosive Material
 D2B Toxic Materials

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