



Inorganic Coagulant Solve 50B

Material Safety Data Sheet

Date Issued: January, 2006
Date Revised: January, 2006

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

EMERGENCY ONLY
CHEMTEC 1-800-424-9300 24 HOURS PER DAY

I. Product Identification

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

Component:	CAS#	% by weight	OSHA PEL/ACGIH TLV
Polyaluminum hydroxychloride	1327-41-9	<30%	

Traces impurities and additional material names not listed above may also appear in Section 15 towards the end of the MSDs. These materials may be listed for local "Right to Know" compliance and for other reasons.

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

II. Hazards Identification

Emergency Overview: A clear, odorless, colorless to light amber colored liquid which can cause significant irritation to the skin and eyes. Vapors may irritate nose and throat. Will not burn but may release hydrochloric acid vapors at fire temperatures.

Health Effects:

Skin:	Contact may cause severe reddening and swelling.
Eye Contact:	Causes irritation and painful burns of the eye and eyelids upon contact. Symptoms are stinging, redness, tearing.
Ingestion:	Can irritate the mouth, throat and stomach.
Inhalation:	Exposure to mist can irritate mucus membranes' and respiratory tract (nose, throat, etc.)

Delayed effects: None known.

III. First Aid

Eye Contact:	<u>Do not rub.</u> Immediately flush eyes gently for 15 minutes with plenty of water. Call a physician immediately.
Skin Contact:	Flush skin 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:	<u>Do not induce vomiting.</u> If conscious, give large quantities of water or milk. Never give anything by mouth to unconscious individual. Seek immediate medical attention.
Advice to Physician	Treat symptomatically.

IV. **Fire and Explosion Hazard Data**

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
Extinguishing Agents:	Foam, dry chemical, carbon dioxide, water spray.
Fire Fighting Precautions:	Use extinguishing media as appropriate for surrounding fire
Unusual Fire and Explosion Haz.:	At elevated temperatures, irritating and corrosive hydrogen chloride vapors may be released.
Special Fire Fighting Precautions:	Wear Self-contained breathing apparatus (SCBA) and full protective equipment. Cool exposed containers with water spray.

V. **Storage and Handling**

See Section 7 for recommended personal protective equipment.

Storage:	Keep storage container tightly closed. Store in cool and dry, well ventilated area or cabinet. Isolate from incompatible substances. Store and ship in plastic or rubber-lined containers
Handling:	Avoid contact with skin, eyes or clothing. Wear protective clothing. Keep container tightly closed when not in use. Avoid breathing vapor or mist. Remove contained clothing and wash thoroughly after handling.

VI. **Accidental Release Measures/Waste Disposal**

See Section 7 for recommended personal protective equipment.

Spill or Leak Procedures:	Dike spilled material. Prevent spreading by using absorbent material. Prevent product from entering drinking water supplies or storm sewers. Neutralize spill with alkali such as soda ash. When using soda ash and other carbonates, carbon dioxide gas may be released. 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.

VII. **Applicable Control Measures**

Engineering Controls:	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 with appropriate cartridge if there is any potential exposure to mists in handling or firefighting.
Additional Recommendations	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.

Exposure guidelines

INGREDIENT NAME	ACGIH TLV	OSHA PEL	OTHER LIMIT
Polyaluminum hydroxychloride	2mg/m ³ TWA (as aluminum)	None	None

OTHER EXPOSURE LIMITS FOR POTENTIAL DECOMPOSITION PRODUCTS:

Hydrochloric acid vapors: 7mg/m³ (ceiling)

VIII. Typical Physical Properties

Appearance:	Clear, colorless liquid
Physical state:	liquid
Molecular weight:	Mixture
Chemical Formula:	Mixture
Odor:	Odorless
Solubility in water (weight%)	100%
Melting point:	14 °F (-10 °C)
Boiling point:	234.5 °F (112.5 °C)
Odor:	None
PH:	~2.2
Specific gravity:	~1.20
Vapor pressure	Not applicable
Vapor density (air=1.0)	Not applicable
Evaporation rate:	Not applicable
% Volatiles:	~80
Flash point:	Not flammable

(Flash point method and additional flammability data are found in Section 4.)

IX. Reactivity Data

Normal Stable (Conditions to Avoid):	Stable under normal conditions of use and storage.
Material to avoid:	Avoid prolonged contact with iron, galvanized iron, aluminum, zinc, steel, zinc and copper which are subject to corrosion..
Haz. Decomposition Products:	At high temperatures (e.g. fire conditions), hydrogen chloride vapor may be generated.
Hazardous Polymerization:	Will not occur under normal temperatures and pressures.

X. Toxicological/Ecological Information

IMMEDIATE (ACUTE) EFFECTS: Data not available.
DELAYED (SUBCHRONIC AND CHRONIC) EFFECTS:Data not available.
No data available for ecological information.

XI. **DISPOSAL CONSIDERATIONS**

RCRA is the unused product a RCRS hazardous waste if discarded? Yes
If yes, the RCRA ID number is: D002 (corrosive).

OTHER DISOSAL CONSIDERATIONS

None listed.

The information offered in Section 13 is for the product as shipped.

Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal methods.

XII. Transportation Information

US DOT HAZARD CLASS/PACKING GROUP: 8, PGIII
US DOT ID NUMBER: UN3264
PROPER SHIPPING NAME: Corrosive liquid, acidic inorganic, N.O.S. (contains polyaluminum hydroxychloride).

TDG HAZARD CLASS/PACING GROUP: 8, PGIII
TDG ID NUMBER: UN 3264
PROPER SHIPPING NAME: Corrosive liquid, acidic inorganic, N.O.S. (contains polyaluminum hydroxychloride).

For additional information on shipping regulations affecting this material, contact the information number found in section 1.

REGULATORY INFORMATION

Regulatory:

TSCA INVENTORY STATUS: Listed on the TSCA Inventory of Chemical Substances

Other TSCA issues: None

SARA Title III/CERCLA:

“Reportable quantities” (RQ5) and/or “Threshold Planning Quantities” (TPQs) exist for the following ingredients.

Ingredient Name

SARA/CERCLA RQ (lb)

SARA EHS TPQ (lb)

No ingredients listed in this section.

Spills or a release resulting in the loss of any ingredient at or above its RQ requires immediate notification to the National Response Center (800-424-8802) and to your local Emergency Planning Committee.

Section 311 Hazard Class: Immediate

Sara 313 Toxic Chemicals:

Component:	CAS#	% by weight	OSHA PEL/ACGIH TLV
Polyaluminum hydroxychloride	1327-41-9	30-60%	2 mg/m ³ as TWA (as aluminum)

WHMIS CLASSIFICATION (CANADA): Class E, D2B. Classified in accordance with WHMIS Controlled Product regulations.

FOREIGN CHEMICAL CONTROL INVENTORY STATUS:

All ingredients listed on European (EINECS), Canadian (DSL), Australian (AICS), Japan (MITI), Korean (ENCS), Philippines (PICCS) and China (IECSC).

Other information: HMIS: 2-0-1 NFPA: 2-0-1

All information, statements, data, advice and-or recommendations, including, without limitation, those relating to storage, loading/unloading, piping and transportation (collectively referred to herein as “information”) are believed to be accurate and reliable. All information provided herein is intended for use by persons having requisite knowledge, skill and experience in the chemical industry.

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