

Solve 80G

Safety Data Sheet

Date Issued: 05/03/2015

Date Revised: 05/03/2015

1. PRODUCT IDENTIFICATION

Product Name: **Solve 80G**

Product Form: Mixture

Other Generic Name: Aluminum chlorohydrate

Company: **WaterSolve LLC, 5031 68TH Street, Caledonia, Michigan 49316 USA**

For product information call 616 575-8693 or visit www.gowatersolve.com

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)

Intended Use of the Product

Use of substance/mixture: Municipal and industrial water and wastewater treatment for the removal of turbidity, color, suspended solids and phosphorus. Sludge compaction and volume reduction. Lagoon treatment. Oily wastewater clarification and dissolved air flotation. Emulsion breaking. Paper machine pitch control. Retention and drainage aid, pitch control, and neutral size bonding agent for paper machines operating in the pH range of 6.0 to 7.8. Point of application to the paper machine is critical in obtaining maximum benefit. This product may be used on fourdrinier and cylinder machines, as well as twin wire formers. It is effective for a variety of paper and board grades.

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification (GHS-US)

Eye Irrit. 2A: H319

GHS-Labeling

Hazard pictograms (GHS-US):



Signal word (GHS-US):

WARNING

Hazard statements

(GHS-US):

H319 Causes serious eye irritation.

Precautionary statements:

(GHS-US)

P264 Wash hands, forearms, and face thoroughly after handling.

P280 Wear protective gloves/ protective clothing/ eye and face protection.

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/attention.

Other Hazards

Other Hazards Not contributing to the classification:

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

Unknown Acute Toxicity (GHS-US) Not available.

3. **COMPOSITION/INFORMATION ON INGREDIENTS**

Mixture

Name	Product identifier	% (w/w)	Classification (GHS-US)
Water	CAS No 7732-18-5	40-70	Not classified
Aluminum chloride, basic	CAS No 1327-41-9	40-70	Eyen Dam. 1, H318

Full text of H-phrases: See Section 16

- The specific chemical identify and/or exact percentage of composition has been withheld as a trade secret within the meaning of the OSHA Hazard Communication Standard (29 CFR 1910.1200).

4. **FIRST AID MEASURES**

Description of first aid measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 60 minutes. Immediately call a POISON CENTER or doctor/physician.

Skin Contact: Remove all contaminated clothing. Gently wash with plenty of soap and water followed by rinsing with water for at least 15 minutes. Immediately call a POISON CENTER or doctor/physician, if you feel unwell. Wash contaminated clothing before reuse.

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

Ingestion: Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most important symptoms and effects, both acute and delayed.

General: Causes serious eye irritation. Causes skin irritation. May cause respiratory irritation.

Inhalation: May cause respiratory irritation.

Skin contact: Causes skin irritation.

Eye contact: Causes serious eye irritation.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: None excepted under normal conditions of use.

Indication of Any immediate medical attention and special treatment needed

If you feel unwell, seek medical advice (show the label where possible).

5. **FIRE-FIGHTING MEASURES**

Suitable extinguishing media

Use extinguishing measures appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special hazards arising from the substance or mixture

Fire Hazard: Not flammable.

Explosion Hazard: Product is not explosive.

Reactivity: Corrosive to metals. Contact with metals may evolve flammable hydrogen gas.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting instructions: Use water spray or fog for cooling exposed containers.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion products: Oxides of aluminum.

Reference to Other Sections

Refer to Section 9 for flammability properties.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

General measures: Avoid all contact with eyes, skin, or clothing. Do not breathe vapor, mist or spray.

For non-emergency personnel:

Protective equipment: Use appropriate personal protection equipment (PPE).

Emergency procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Stop leak if safe to do so. Ventilate area.

Environmental Precautions:

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

Methods and materials for containment and cleaning up:

For Containment: Collect spillage.

Methods for clean up: Absorb and/or contain spill with inert material, then place in suitable container.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection. Concerning disposal after cleaning, see item 13.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Hygiene measures: Handle in accordance with good industrial hygiene and safety procedures. Wash your hands and other exposed areas with mild soap and water when leaving work. Use good housekeeping practices during storage, transfer and handling.

Conditions for safe storage including any incompatibilities

Technical measures: Comply with applicable regulations.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Incompatible materials: Strong acid, Strong bases, strong oxidizers. Non acid-proof metals. Galvanized surfaces.

Specific end use:

Municipal and industrial water and wastewater treatment for the removal of turbidity, color, suspended solids and phosphorus. Sludge compaction and volume reduction. Lagoon treatment. Oily wastewater clarification and dissolved air flotation. Emulsion breaking. Paper machine pitch control. Retention and drainage aid, pitch control, and neutral size bonding agent for paper machines operating in the pH range of

6.0 to 7.8. Point of application to the paper machine is critical in obtaining maximum benefit. This product may be used on fourdrinier and cylinder machines, as well as twin wire formers. It is effective for a variety of paper and board grades.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

No Occupational Exposure Limits (OELs) have been established for this product or its chemical components.

Exposure controls

Appropriate engineering controls: Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.

Personal protective equipment

Protective goggles. Gloves, Protective clothing. Corrosion-proof clothing.

Materials for protective clothing: Chemical resistant materials and fabrics.

Respiratory protection: Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of vapor or mist are expected to exceed exposure limits.

Hand protection: Wear chemically resistant protective gloves. Wear protective gloves made from PVC, neoprene, nitrile, vinyl or PVC/NBR.

Skin and body protection: Wear suitable protective clothing.

Eye protection: Chemical goggles or safety glasses.

Environmental Exposure Controls: Do not allow the product to be released into the environment.

Consumer Exposure Controls: Do not eat, drink or smoke during use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state:	Liquid
Appearance:	Colorless
Odor:	Not available
Odor Threshold:	No available
pH:	2.5-4.4
Melting point:	Not applicable
Freezing point:	-4°C (25°F)
Boiling Point:	Not available
Flash point:	Not flammable
Auto ignition temperature:	Not applicable
Decomposition temperature:	Not available
Flammability (solid or gas):	Not applicable
Upper/lower explosion limit:	No applicable
Vapor pressure:	Not available
Relative vapor density at 20°C:	Not available
Specific gravity:	1.30-1.36
Solubility:	100%
Partition coefficient (n-octanol/water):	Not available
Viscosity:	Not available
Explosion data-Sensitivity To Mechanical impact:	Not expected to present an explosion hazard due to mechanical impact
Explosion data-Sensitivity To Static discharge:	Not expected to present an explosion hazard due to static discharge

10. **STABILITY AND REACTIVITY**

Reactivity: Corrosive to metals. Contact with metals may evolve flammable hydrogen gas.

Chemical stability: Stable under recommended handling and storage conditions (see Section 7).

Possibility of hazardous reactions: Hazardous polymerization will not occur.

Conditions to avoid: Direct sunlight, extremely high or low temperatures. Incompatible materials.

Incompatible materials: Strong acids, Strong bases, strong oxidizers. Non acid-proof metals. Galvanized surfaces.

Hazardous decomposition products: Hydrochloric acid fumes may be generated.

11. **TOXICOLOGICAL INFORMATION**

Information on toxicological effects-Product

Acute toxicity: Not classified

LD50 and LC50 Data: Not available

Skin corrosion/irritation: Not classified

pH: 2.5-4.4

Serious eye damage/eye irritation: Causes serious eye damage.

pH: 2.5-4.4

Respiratory or skin sensitization: Not classified.

Germ cell mutagenicity: Not classified.

Carcinogenicity: Not classified.

Teratogenicity: Not classified.

Specific Target organ toxicity (repeated exposure): Not classified

Reproductive toxicity: Not classified.

Specific target organ toxicity (single exposure): Not classified.

Aspiration Hazard: Not classified.

Symptoms/injuries after inhalation: May cause respiratory irritation.

Symptoms/injuries after skin contact: Causes skin irritation.

Symptoms/injuries after eye contact: Causes serious eye damage.

Symptoms/injuries after ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: None expected under normal conditions of use.

Information of Toxicological effects-ingredient(s)

LD50 AND LC50 data:

Aluminum chloride, basic (1327-41-9)	
LD50 Oral rat	>2000 mg/kg
LD50 Dermal Rat	>2000 mg/kg
Water (7732-18-5)	
LD50 Oral rat	>90000 mg/kg

12. **ECOLOGICAL INFORMATION**

Toxicity: Not classified

Persistence and degradability: Not available

Bioaccumulative potential: Not available

Mobility in soil: Not available

Other adverse effects: Not available

13. **DISPOSAL CONSIDERATIONS**

Waste Disposal Recommendations: Dispose of waste material in accordance with local, regional, national, provincial, territorial and international regulations.

Ecology-Waste Materials: Avoid release to the environment.

14. **TRANSPORT INFORMATION**

- 14.1 In Accordance with DOT Not regulated for transport
- 14.2 In accordance with IMDG Not regulated for transport
- 14.3 In accordance with IATA Not regulated for transport
- 14.4 In accordance with TDG Not regulated for transport

15. **REGULATORY INFORMATION**

US Federal Regulations

Product	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard

Aluminum chloride, basic (1327-41-9):

Listed on the United States TSCA (Toxic Substances Control Act Inventory)

Water (7732-18-5):

Listed on the United States TSCA (Toxic Substances Control Act Inventory)

US STATE REGULATIONS

Neither this product nor its chemical components appear on any US state lists.

Canadian Regulations

Product

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
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Aluminum chloride, basic (1327-41-9)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Class E- Corrosive Material
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Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
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This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

16. **OTHER INFORMATION**

This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
H319	Causes serious eye irritation
H318	Causes serious eye damage

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Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This information is for the specific material described only and may not be valid if the material is used in combination with any other materials or in any process. The user is responsible to determine the completeness of the information and suitability for the user's own particular use. The knowledge and belief of the company, the information is accurate

and reliable as of the date indicated but the company makes no express or implied warranty of merchantability for the material or the information. The company makes no express or implied warranty of fitness for a purpose for the material or for the information. Users of any chemical should educate themselves on all aspects of its use by independent investigation of current scientific and medical knowledge that the material can be used safely.

List of abbreviations and acronyms that could be, but not necessarily are, used in the safety data sheet:

ACGIH: American Conference of Industrial Hygienists
BEI: Biological Exposure Index
CAS: Chemical Abstracts Service (Division of the American Chemical Society)
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act
CMR: Carcinogenic, Mutagenic or Toxic for Reproduction
DOT: Department of Transportation
FG: Food grade
FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act
GHS: Globally Harmonized System of Classification and Labeling of Chemicals
H-statement: Hazard Statement
HMIRC: Hazardous Materials Information Review Commission
HMIS: Hazardous Materials Identification System
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI (ICAO): Technical Instructions by the "International Civil Aviation Organization"
IMDG: International Maritime Code for Dangerous Goods
ISO: International Organization for Standardization
logPow: octanol-water partition coefficient
LCxx: Lethal Concentration, for xx percent of test population
LDxx: Lethal Dose, for xx percent of test population
ICxx: Inhibitory Concentration for xx of a substance
ECxx: Effective Concentration of xx
N.O.S.: Not otherwise Specified
NFPA: National Fire Protection Association
NIOSH: National Institute for Occupational Safety and Health
OECD: Organization for Economic Co-operation and Development
OEL: Occupational Exposure Limit
OSHA: Occupational Safety and Health Administration
P-Statement: Precautionary Statement
PBT: Persistent, Bioaccumulative and Toxic
PMRA: Health Canada Pest Management Regulatory Agency
PPE: Personal Protective Equipment
RTK: Right to Know
STEL: Short-term exposure limit
SDS: Safety Data Sheet
STOT: Specific Target Organ Toxicity
TLV: Threshold Limit Value
TWA: Time-weighted average
VPVB: Very Persistent and Very Bioaccumulative
WEL: Workplace Exposure Level
WHMIS: Workplace Hazardous Materials Information System
(WAF): *water-accommodated fraction*