



# Cationic Dry Solve 9458

## Safety Data Sheet

Date Issued: 04/13/2013

Date Revised: 04/13/2013

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **SOLVE 9458**  
CHEMICAL TYPE: Copolymer of acrylamide, cationic acrylic acid derivative  
COMPANY: WaterSolve, LLC, 5031 68TH Street, Caledonia, Michigan 49316, 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)

### 2. HAZARDS IDENTIFICATION

#### Emergency Overview

A white, granular polymer, that when it gets wet, causes extremely slippery conditions. This product may be harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### Potential Health Effects:

Treat as an eye irritant. Exposure to dust may be irritating to eyes, noses, and throat.

**Potential Health Effects:** Dust or powder may be a skin irritant.

**Potential Health Effects:** Ingestion –May be harmful by swallowed. Seek medical attention.

**Potential Health Effects:** Inhalation – Inhaled dust may aggravate an existing respiratory condition.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Cas#	Component	Percent
69418-26-4	Copolymer of acrylamide with cationic acrylic acid derivative	
77-92-9	Citric acid	<5%

#### Component Information/Information on Non-Hazardous Components

The manufacturer lists no ingredients as hazardous according to OSHA 29 CFR 1910.1200.

### 4. FIRST AID MEASURES

**Skin Contact:** Flush thoroughly with water and soap. Take off contaminated clothing and wash thoroughly before reuse.

**Eye Contact:** Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Consult a physician.

**Ingestion:** If ingested, seek medical attention. Do not induce vomiting unless instructed to do so by medical personnel.

**Inhalation:** Move to source of fresh air.

5. **FIRE FIGHTING MEASURES**

**General Fire Hazards**

No recognized fire hazards associated with the finished product. However, fine dust may form explosive mixtures with air. Take measures against electrostatic charge.

**Hazardous combustion products:** In case of fire, carbon monoxide and nitrogen oxides.

**Suitable extinguishing media:** **Dry chemical**, foam, carbon dioxide, water fog.

**Protective equipment for firefighters:** Firefighters should wear full protective clothing including self contained breathing apparatus.

**NFPA Ratings: Health: 1 Fire: 1 Reactivity: 0 Other: B**

Hazard Scale: 0=minimal 1=slight 2=moderate 3=serious 4=severe

6. **ACCIDENTAL RELEASE MEASURES**

**Containment Procedures:** Avoid respirable dust. Shovel material into appropriate container for disposal.

**Methods for cleaning up:** Wear appropriate protective equipment and clothing during clean-up. Sweep up and collect dry product. Product becomes slippery and difficult to handle when wet: spills are best handled while still dry. Follow all Local, State, Federal and Provincial regulations for disposal.

**Evacuation procedures:** Isolate area. However, keep on-lookers away.

**Special procedures:** Remove spills promptly as they may make floors slippery. Prevent penetration into surface waters, sewers and ground. Pickup and dispose.

7. **HANDLING AND STORAGE**

**Handling:** Handle as an eye irritant. When dust is formed, ensure sufficient workplace ventilation.

**Storage:** Store in a dry place.

8. **EXPOSURE CONTROLS/PERSONAL PROTECTION**

**General Product Information**

Due to acute aquatic toxicity, prevent spillage and disposal of product into natural waters. Spilled product in contact with water or moisture causes surfaces to become extremely slippery. When dust is formed ensure sufficient workplace ventilation.

**Component Exposure Limits:** Not applicable.

**Engineering controls:** Provide adequate ventilation to minimize worker exposure.

**Personal protection equipment**

**Respiratory protection:** Use a nuisance dust mask for dusty conditions, if dust is produced.  
**Hand Protection:** Not required. For occupational hygiene reasons, impervious gloves (rubber or neoprene) are recommended.  
**Eye protection:** Safety glasses or goggles.  
**Hygiene measures:** CAUTION: Extreme slipping hazard when wet. Obey reasonable safety precautions and practice good housekeeping.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Form: powder  
Color: white  
Odor: slight amine odor  
pH: 4-5 @ 1% in water @ (20.0°C)  
Solubility (H<sub>2</sub>O): Soluble with a rise in viscosity (20.0°C)  
Specific Gravity: ~0.7 g/cm<sup>3</sup>  
Vapor Density: N/A  
Bulk Density: ~600.0 kg/m<sup>3</sup>  
Fusing Temperature: N/A  
Vapor Pressure: N/A  
Starts to boil at: N/A  
Flash Point: N/A  
Ignition temperature: Not determined  
Upper Flammable limit: not determined  
Lower Flammable limit: Not determined

**10. STABILITY AND REACTIVITY**

**Stability:** Stable under usual application conditions.  
**Conditions to Avoid:** Temperatures > 150°C.  
**Hazardous Decomposition Products:** Decomposes above temperatures 150°C.  
**Incompatibility:** None identified.  
**Hazardous Polymerization:** Decomposes at temperatures > 150°C.

**11. TOXICOLOGICAL INFORMATION**

**Acute and chronic toxicity**

**Acute Oral Toxicity:** LD50 rat: dose > 5,000 mg/kg (Method OECD Nr. 401)  
**Skin Irritation:** Rabbit: no irritation (Method OECD 404)  
**Eye Irritation:** Very slight eye irritation, Particle effect  
**Sensitization:** Guinea pig: No sensitization (Method OECD 406)

**Acute Toxicity - LD50/LC50**  
Citric acid (77-92-9)  
LD50: Oral LD50 Rat: 3000 mg/kg

**Carcinogenicity**

**General Product Information**

NTP: No  
IARC: No  
OSHA: No

**Component Carcinogenicity**

No information is available.

## 12. ECOLOGICAL INFORMATION

**General Product Information:** Prevent concentrated product from penetrating into waters without biological waste water treatment.

**Biodegradability:** Hydrolysis > 70 % in 28 d (Method OECD 111)

**Physio-chemical removability:** Because of its specific substantively, the product can be eliminated well in biological waste effluent treatment plants.

Toxicity to daphniae: *Daphnia magna* 48h EC50 = ~35 mg/L (Method OECD 202)  
Toxicity to fish: *Brachydanio rerio* 96 hr LC50 > 1 - 10 mg/l (Method OECD Nr. 203)

**Further Information:** Effects on aquatic organisms are due to external (non-systemic) mode of action. Effects on aquatic organisms are attributable to the cationic charge of the polymer. In natural surface waters this is neutralized by irreversible adsorption to particles and dissolved organic carbon. This reduces toxicity in surface waters by more than 10 fold.  
Data reported in sections 11 and 12; details from literature.

### **Component Analysis - Ecotoxicity – Aquatic Toxicity**

Citric Acid (77-92-9)

96hr LC50 *Lepomis macrochirus*: 1516 mg/L (static); 96 hr LC50 *Leuciscus idus*: 440 mg/L (static)

### **Environmental Fate**

Biodegradation is negligible, possibly due to the highly polymerized structure of the polyacrylamides.

However, the substance is removed from waste water effluent due to flocculation with the bio-sludge.

## 13. DISPOSAL CONSIDERATIONS

### **US EPA Waste Number & Descriptions**

**General Product Information:** Incinerate or dispose of solidified product according to local, state and federal regulations. Unadulterated product is considered non-hazardous.

**Component Waste Numbers:** No EPA Waste Numbers are applicable for this product's components.

**Disposal Instructions:** Clean up and dispose of waste in accordance with all federal, state, and local environmental regulations.

## 14. TRANSPORT INFORMATION

### **International Transportation Regulations**

This product is not regulated as a hazardous material by the United States (DOT) or Canadian (TDG).

15. **REGULATORY INFORMATION**  
**US Federal Regulations**

**General Product Information:** SARA 313 reportable toxic chemicals- None. This product is not federally regulated as a hazardous material.

**Clean Air Act:** No information is available.

**Component Analysis:** No information is available.

**Component Analysis – State:** This product contains <0.1% residual acrylamide (CAS#79-06-1), and the following states recognize acrylamide as a carcinogen or suspected carcinogen: CA (Prop 65), MA, MN, NJ & PA.

**California Proposition 65:**

The following statement is made in order to comply with California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substances (S) known to the State of California to cause cancer:

<u>Component</u>	<u>CAS#</u>
Acrylamide	79-06-1

New Jersey RTK Label Information

Acrylamide	79-06-1
------------	---------

Pennsylvania RTK Label Information

Acrylamide	79-06-1
------------	---------

**Component Analysis – WHMIS IDL**

No components are listed in the WHMIS IDL.

**Component Analysis – Inventory**

Component	CAS#	TSCA	CAN	EEC
Ethanaminium, N,N,N-triethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-propenamide	69418-26-4	Yes	DSL	No
Citric acid	77-92-9	Yes	DSL	EINECS

HMIS Ratings: Health: 1 Fire: 1 Reactivity 0 Personal Protection: B

Hazard Scale: 0=minimal 1=slight 2=moderate 3=serious 4=severe \*=chronic hazard

16. **OTHER INFORMATION**

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.