Cationic Dry
Solve 9459

Safety Data Sheet

Date Issued: 04/13/2013
Date Revised: 04/13/2013

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **SOLVE 9459**
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 Over: 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.

6. ACCIDENTAL RELEASE MEASURES

Containment Procedures: Avoid 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.

Skin Protection: Skin contact should be minimized. 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_2O):	Soluble with a rise in viscosity (20.0°C)
Specific Gravity:	N/A
Vapor Density:	N/A
Bulk Density:	~600.0 kg/m^3
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 > 2,000 mg/kg (Method OECD Nr. 401) Of a 5% solution.

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

Component Carcinogenicity
NTP: No
IARC: No
OSHA: No

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)(EU C7)

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)
Toxicity to Algae: Growth inhibition test is not appropriate.

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

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 <0.10% 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:

Component	**CAS#**
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.