



## Solve 4499

### Safety Data Sheet

Date Issued: 10/09/2015

Date Revised: 10/09/2015

#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **SOLVE 4499**  
CHEMICAL TYPE: Antiscalant, Dispersing agent  
COMPANY: WaterSolve, LLC, 5031 68<sup>th</sup> St. S.E. Caledonia, MI 49316, USA  
For Product information call 616-575-8693. [www.gowatersolve.com](http://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)

#### 2. HAZARDS IDENTIFICATION

##### **Classification of the substance or mixture**

The material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard (29CFR 1910.1200) implementation of the Globally Harmonized System (GHS), i.e., material is not a dangerous substance or mixture requiring GHS classification according to the US GHS regulations.

##### **GHS-Labeling**

Product is not hazardous under US GHS.

##### **Other hazards which do not result in classification**

**Advice:** Solutions extremely slippery when spilled. Prolonged or repeated contact may cause skin or eye irritation. The health hazards of this product should be low under normal industrial and commercial uses.

**Skin:** A single, prolonged exposure is not likely to result in the material being absorbed through skin in harmful amount. Prolonged or repeated contact may dry skin and cause irritation.

**Eyes:** May cause slight irritation.

**Ingestion:** Low acute oral toxicity.

**Chronic exposure:** No known carcinogenic effects.

**Remarks:** The health hazard of this product should be low under normal industrial and commercial uses.

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

##### **Substances/Mixtures**

Chemical nature Anionic polyacrylamide.

##### **No hazardous ingredients**

##### **Further Information**

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

#### 4. **FIRST AID MEASURES**

##### **Description of first aid measures**

##### **Ingestion:**

Material is not expected to be harmful by ingestion. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. No specific first aid measures are required.

##### **Skin Contact:**

Wash off immediately with plenty of water and soap. Get medical attention if irritation develops and persists.

##### **Eye Contact:**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If possible use lukewarm water.

##### **Inhalation:**

If breathing is difficult, remove to fresh air and provide oxygen. If not breathing, give artificial respiration. Seek medical attention if cough or other symptoms develop.

##### **Most important symptoms and effects, both acute and delayed.**

Symptoms: No information available.

##### **Indication of immediate medical attention and special treatment needed, if necessary**

Treatment: All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

#### 5. **FIRE FIGHTING MEASURES**

##### **Suitable Extinguishing Media:**

Use water spray, water mist or fog, carbon dioxide or dry chemical.

##### **Special hazards arising from the substance or mixture**

When water has evaporated, the residue will burn. Fire or intense heat may cause pressure build-up. Carbon oxides (COx), Nitrogen gases, Hydrocarbons, Fumes, Smoke.

##### **Special protective actions for fire-fighters**

In the event of fire, wear self-contained breathing apparatus. Splash proof protective suit. Use NIOSH/MSHA approved respiratory protection.

##### **Further information**

Cool containers/tanks with water spray. Must be disposed of in accordance with local and national regulations.

#### 6. **ACCIDENTAL RELEASE MEASURES**

##### **Personal precautions:**

Refer to Section 8 (Exposure Controls/Personal Protection) for appropriate personal protective equipment.

##### **Methods and materials for containment and cleaning Up:**

Products may cause a slip hazard. Spilled material should be absorbed onto an inert material and sweep up or shovel into containers for disposal. After cleaning, flush away traces with water. Prevent product from entering drains.

7. **HANDLING AND STORAGE**

**Precautions for safe handling:** Handle in accordance with good industrial hygiene and safety practice. For personal protection see Section 8.

**Conditions for safe storage, including any incompatibilities**

Store at room temperature in the original container. Avoid extreme temperatures. Avoid freezing. Mix well before using. Do not store near combustible materials. Keep away from heat and sources of ignition. Keep containers tightly closed in a cool, well-ventilated place.

**Materials to avoid:** No data available

**Storage stability:**

**Storage temperature:** 41-95°F

8. **EXPOSURE CONTROLS/PERSONAL PROTECTION**

Components with workplace control parameters

Component	CAS-No.	Value	Form of exposure	Control parameters	Update	Basis
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Contains no substances with occupational exposure limit values.

**Appropriate Engineering Controls:**

Wash hands before breaks and at the end of workday. Wash hands before eating, drinking or smoking. Ensure that eyewash stations and safety showers are close to the workstation location. Good general ventilation should be sufficient to control airborne levels. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**Individual protection measures, such as personal protective equipment**

**Respiratory Protection:**

Where there is potential for airborne exposure in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.

**Eye Protection:**

Wear eye/face protection such as chemical splash proof goggles or face shield.

**Skin Protection:**

Protective clothing. Wear impermeable gloves.

**Additional Advice:**

Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water.

**Environmental exposure controls**

Prevent product from entering the environment.

9. **PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<b>Physical state:</b>	Liquid
<b>Appearance and Odor:</b>	clear, colorless to pale yellow, slight odor
<b>Initial Boiling Point/range:</b>	approximately 212°F
<b>Melting Point/range:</b>	~0°C,
<b>Freezing point:</b>	32°F
<b>Flash point:</b>	199.9 ° F
<b>Evaporation Rate:</b>	< 1
<b>Explosive Properties:</b>	
<b>Lower explosion limit:</b>	No data available
<b>Upper explosion limit:</b>	No data available
<b>Relative vapor density:</b>	Similar to water
<b>Density:</b>	8.9 lb/gal
<b>Solubility in Water:</b>	soluble
<b>Partition Coefficient</b>	
<b>n- octanol/water:</b>	No data available
<b>Viscosity, dynamic:</b>	5,000 ó 12,000 mPa.s
<b>Surface tension:</b>	Not available

## 10. STABILITY AND REACTIVITY

### Reactivity

### Chemical Stability

**Possibility of hazardous reactions:** Hazardous polymerization does not occur.

**Conditions to Avoid:** Avoid extreme temperatures

**Incompatible Materials:** No data available.

### Hazardous Decomposition

**Products:** Carbon monoxide  
Carbon dioxide  
Hydrocarbons  
Fumes  
Smoke

**Thermal decomposition:** No data available

## 11. TOXICOLOGICAL INFORMATION

### Information on toxicological effects

**Acute oral toxicity:** Conclusion: The acute toxicological results displayed may not be the results of actual testing of this material but based on a similar tested material.

LD50/Rat= > 5,000 mg/kg

**Acute inhalation toxicity:** LC50/Rat= 2,500 mg/l

**Acute dermal toxicity:** LD50/Rabbit= 2,000 mg/l

**Skin corrosion/irritation:** Result: No skin irritation

**Serious eye damage/eye irritation:** Result: No eye irritation

### Respiratory or skin sensitization

**Skin Sensitization:** Conclusion: Not sensitizing

### Germ cell mutagenicity

**Genotoxicity in vitro:** AMES test Conclusion: No data available

**Carcinogenicity:** No data available

### Reproductive toxicity

**Toxicity for reproduction:** Rat Conclusion: No data available

**Aspiration hazard:** No aspiration toxicity classification

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity effects

#### Aquatic toxicity:

**Remarks:** Ecotoxicological information provided is based on structurally or compositionally similar product. This material is not classified as dangerous for the environment.

LC50/96h Zebra Fish (Branchydanio rerio)/Acute toxicity/OECD Test Guideline 203: > 100 mg/l

Remarks: Seawater

EC50/48h Water Flea (Daphnia magna)/Immobilization/OECD Test Guideline 202: > 100 mg/l

IC50/72h/Green algae (Selenastrum capricornutum)/OECD Test Guideline 201: > 100 mg/l

### Toxicity to other organisms

**Remarks:** No data available

### Persistence and degradability

**Biological degradability:** Modified Sturm Test/OECD Test Guideline 301B/ 28d: < 70%

Not readily biodegradable. Because of the high molecular weight of the polymer diffusion through biological membranes is very small.

### Bioaccumulative potential

Partition coefficient: n- octanol/water. No data available

**Mobility in soil**

Water solubility soluble

Surface tension: not determined

**Other adverse effects**

No data available

Additional ecological information: Ecotoxicological information provided is based on a structurally or compositionally similar product. This material is not classified as dangerous for the environment.

13. **DISPOSAL CONSIDERATIONS**

**Product:** Must be disposed of in accordance with local and national regulations. Incineration is recommended. EPA Hazardous Waste-NO

**Contaminated packaging:** Rinse package before disposal. Dispose of rinse water in accordance with local and national regulations.

14. **TRANSPORT INFORMATION**

**Land Transport**

Not classified as dangerous in the meaning of transport regulations.

**Sea Transport**

Not classified as dangerous in the meaning of transport regulations.

**Air Transport**

Not classified as dangerous in the meaning of transport regulations.

**Special precautions for user**

15. **REGULATORY INFORMATION**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**SARA Title III Section 311 Categories:**

Immediate (Acute) Health Effects: No

Delayed (Chronic) Health Effects: No

Fire Hazard: No

Sudden Release of Pressure Hazard: No

Reactivity Hazard: No

**SARA 302 Extremely Hazardous Substances**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

None present

**SARA 313- Specific Toxic chemical Listings**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313. None present.

**California Proposition 65**

Acrylamide (79-06-1) < 0.5 %

Nitilotriacetic acid 9139-13-9) < 0.1 PPM

Remarks: This product contains a chemical or chemicals known to the State of California to cause cancer, birth defects of other reproductive harm.

**Other regulations:** None

**Notification status:**

USA: All components of this product are included on the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical I inventory.

Canada: All components of this product are included on the Domestic Substances List (DSL) or are not required to be listed on the DSL

European Union (EU): All components of this product are included on the European Inventory of Existing Chemical Substances (EINECS) or are not required to be listed on EINECS.

Australia: All components of this product are included in the Australian Inventory of Chemical Substances(AICA) or are not required to be listed on AICS.

China: All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese Inventory.

Japan: All components of this product are included on the Japanese (ENCS) inventory or are not required to be listed on the Japanese Inventory.

Korea: All components of this product are included on the Korean (ECL) inventory or are not required to be listed on the Korean inventory

New Zealand: This product's New Zealand Inventory of Chemical Substances (NZIoC) status has NOT been determined.

Philippines: All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine inventory.

Taiwan: This product's Taiwan Toxic Chemical Substances Control Act Inventory status has NOT been determined.

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#### **OTHER INFORMATION**

##### **NFPA HAZARD RATING (National Fire Protection Association)**

**Health 1-** Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

**Fire 0** Materials that must be preheated before ignition can occur.

**Reactivity 0** Materials that in themselves are normally stable, even under fire exposure conditions.

##### **HMIS Rating:**

**Health: 1**

**Flammability: 0**

**Reactivity: 0**

**Training advice: Read the Safety Data Sheet before using the product.**

**DATE ISSUED: 10/09/2015    DATE REVISED: 10/09/2015**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. 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. Both the supplier and manufacturer make no representations and assume no liability for any direct, incidental or consequential damages resulting from its use. Both the supplier and manufacturer make no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. 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. 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. The buyer assumes all responsibility for using and handling the product in accordance with applicable federal, state and local regulations.

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

LC<sub>xx</sub>: Lethal Concentration, for xx percent of test population

LD<sub>xx</sub>: Lethal Dose, for xx percent of test population

IC<sub>xx</sub>: Inhibitory Concentration for xx of a substance

EC<sub>xx</sub>: 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