# Cationic Dry
# Solve 6110

# Safety Data Sheet

Date Issued: 03/09/2018
Date Revised: 02/16/2015

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **SOLVE 6110**
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)

**Recommended use of the chemical and restrictions on use**
Use of the substance/Mixture: Flocculating agent.

## 2. HAZARDS IDENTIFICATION

**Classification of the substance or mixture**
The material is not hazardous under the criteria of Federal OSHA Hazard Communication Standard's (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: Spills are very slippery when wet.
Skin: Repeated or prolonged exposure may cause; May cause slight irritation.
Eyes: Dust contact with the eyes can lead to mechanical irritation.
Chronic exposure: No known carcinogenic or other chronic effects.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substances/Mixtures**
Chemical nature: Cationic polyacrylamide

Hazardous components

| Chemical Name | CAS-No. | Concentration (%) |
|---|---|---|
| Adipic acid | 124-04-9 | 0-5 % |

Further information
While product does not meet US GHS hazardous classification requirement, component(s) shown in the Hazardous components table have a workplace exposure limit (ACGIH, NIOSH, or OSHA) which are required to be listed regardless of GHS classification status. See section 8 for workplace limits.

## 4. FIRST AID MEASURES

**Description of first aid measures**

**Inhalation**

Remove to fresh air. If there is difficulty in breathing, medical advice is required.

**Skin contact:**

Wash off with soap and plenty of water.

**Eye contact:**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.

**Ingestion:**

Material is not expected to be harmful by ingestion. No hazards which require special first aid measures.

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

## 5. FIRE FIGHTING MEASURES

**Suitable Extinguishing Media:**

Use water spray, carbon dioxide (CO2) or dry chemical.

**Unsuitable extinguishing media**

None

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

Dust may form explosive mixture in air.

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

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

**Further information**

In the event of fire, cool tanks with water spray.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

For personal protection see section 8.

**Environmental precautions**

Should not be released into the environment.

**Methods and materials for containment and cleaning up**

Product becomes slippery when it is wet. Take up mechanically and collect into suitable containers for disposal. Flush with water. Prevent product from entering drains.

**Additional advice**

Local authorities should be advised if significant spillages cannot be contained.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

Handle in accordance with good industrial hygiene and safety practice. The product is hygroscopic. Protect from moisture.

**Conditions for safe storage, including any incompatibilities**
Store in original container.

Materials for packaging
Unsuitable materials: To avoid product degradation and equipment corrosion, do not use iron, copper or aluminum containers or equipment.

Materials to avoid:
Strong oxidizing agents

Storage stability:
Storage temperature: 39.2 – 89.6 °F

Other data: Stable under recommended storage conditions.
Reason: Integrity

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

| Components | CAS-No. | Value | Form of exposure | Control parameters | Update | Basis |
|---|---|---|---|---|---|---|
| Adipic acid | 124-04-9 | TWA | | 5 mg/m$^3$ | 2007-01-01 | ACGIH |

**Appropriate Engineering controls:**
Handle in accordance with good industrial hygiene and safety practice. Wash hands and face before breaks and immediately after handling the product. Avoid contact with skin, eyes and clothing. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation.

**Individual protection measures, such as personal protective equipment**
**Respiratory protection:**
When there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.
**Hand protection:**
Glove material: impervious gloves. Permeability tests are not available for this product. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
**Skin and body protection:**
Protective clothing.
**Eye protection:**
Safety glasses

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

| | |
|---|---|
| Physical state: | solid, powder |
| Colour: | white |
| Odour: | odourless |
| pH: | 3 – 5 (0.5%)<br>(as aqueous solution) |
| Melting point/range: | Not determined |
| Initial Boiling Point/Range: | Not applicable |
| Flash point: | Not applicable |
| Evaporation rate: | Not applicable |

| | |
|---|---|
| Explosive properties: | |
| Lower explosion limit: | No data available |
| Upper explosion limit: | No data available |
| Vapor Pressure: | Not applicable |
| Relative vapour density: | Not applicable |
| Bulk density: | 650-850 kg/m$^3$ |
| Solubility in Water: | Limited by viscosity |
| Partition coefficient (n-octanol/water) | Not applicable |
| Decomposition temp: | >302°F |
| Oxidizing potential: | The substance or mixture is not classified as oxidizing |
| Saturation in air (%vol) | Not applicable |
| Volatile organic content (VOC): | No data available |
| Surface tension: | Not applicable |

## 10. STABILITY AND REACTIVITY

**Reactivity**
**Chemical Stability:**
**Possibility of hazardous reactions**

| | |
|---|---|
| Hazardous reactions: | Hazardous polymerization does not occur |

**Conditions to avoid:** Avoid contact with alkaline materials which will degrade the polymer.

**Incompatible Materials:** Strong oxidizing agents.

**Hazardous decomposition products:**

| | |
|---|---|
| Hazardous Decomposition Products: | Nitrogen oxides (NOx)<br>Carbon dioxide (CO2)<br>Carbon monoxide (CO)<br>Ammonia |

**Thermal decomposition:** 302 °F

## 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.<br><br>Conclusion: The data is based on toxicological properties of individual components of the product.<br>Remarks: estimated<br>Rat/>/5,000mg/kg/LD50 |
| **Acute oral toxicity** | **Adipic acid**:<br>Rat/5,000 mg/kg/LD50 |
| **Acute inhalation toxicity** | LC50/Rat/4hr/> 20 mg/l<br>Remarks: estimated |
| **Acute dermal toxicity** | LD50/Rabbit/>/2,000 mg/kg<br>Remarks: estimated |

| | |
|---|---|
| **Acute dermal toxicity** | **Adipic acid:**<br>LD50/Rabbit/>5,000 mg/kg |
| **Skin corrosion/irritation** | Conclusion: No skin irritation |
| **Skin corrosion/irritation** | **Adipic acid**<br>Conclusion: No skin irritation |
| **Serious eye damage/ eye irritation** | Conclusion: No eye irritation |
| **Serious eye damage/ eye irritation** | **Adipic acid:**<br>Conclusion: Irritating to eyes. |

**Respiratory or skin Sensitization**
Skin sensitisation: Conclusion: Not sensitizing

**Germ cell mutagenicity**
**Carcinogenicity** Based on available data, the classification criteria are not met.

**Reproductive toxicity**

## 12. ECOLOGICAL INFORMATION LC50

**Ecotoxicity effects**
**Aquatic toxicity**
Ecotoxicological information provided is based on a structurally or compositionally similar product. This material is not classified as dangerous for the environment. The effects on aquatic organisms are due to an external (non-systemic) mode of action and are significantly reduced (by a factor of 7-20) within 30 minutes due to the binding of the product to dissolved organic carbon and inorganic sorbents such as clays and silts. The effects of this product on aquatic organisms are rapidly and significantly reduced through hydrolysis and by the presence of dissolved organic compounds in the aquatic environment.

LC50/96 h/Branchydanio rerio (zebra fish)/Acute toxicity/OECD Test Guideline 203: > 1-10 mg/l
Remarks: fresh water
EC50/48 h/Daphnia magna (Water flea)/Immobilization/OECD Test Guideline 202: > 10-100 mg/l
Remarks: Ecotoxicological information provided is based on a structurally or compositionally similar product.
Green algae (Selenastrum capricornutum)/Growth inhibition/OECD Test Guideline 201: Due to the cationicity of the polymer, test is not appropriate.

**Adipic acid:**
LC50/96 h/Fish: >100 mg/l
EC50/48 h/Daphnia (water flea): 85.6 mg.l
EC50/72 h/algae: 31.3 mg/l

**Toxicity to other organisms**
**Persistence and degradability**
Biological degradability:
CO2 Evolution Test/OECD Test Guideline 301B/28 d:
The polymeric ingredient is not readily biodegradable.

**Biological degradability:**
**Adipic acid:**

Not readily biodegradable.

**Bioaccumulative potential**
Bioaccumulation is unlikely. Because of the high molecular weight of the polymer diffusion through biological membranes is very small.
Partition coefficient: n-octanol/water : Not applicable

**Adipic acid:**
Does not bioaccumulate.
Partition coefficient: n-octanol/water: log Pow: 0.093

**Mobility in soil**
Water solubility: Limited by viscosity.
Surface tension: Not applicable

**Other adverse effects**
No information 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. The effects on aquatic organisms are due to an external (non-systemic) mode of action and are significantly reduced (by a factor of 7-20) within 30 minutes due to the binding of the product to dissolved organic carbon and inorganic sorbents such as clays and silts.

## 13. DISPOSAL CONSIDERATIONS

| | |
|---|---|
| **Product** | Recycling, recovery and reuse of materials is recommended if permitted by regulations. If recycling is not practicable, dispose of in compliance with local regulations.<br>EPA Hazardous Waste - NO. |
| **Contaminated packaging** | Must be disposed of 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: None known.

## 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 Section 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) < 0.1 %
Remarks**:** This product contains a chemical or chemicals known to the state of California to cause cancer, birth defects or other reproduction harm.

**Notification status**
USA : All components of this product are included on the United States TSCA Chemical Inventory or are not required to be listed on the United States TSCA Chemical Inventory.

Canada: All components of this product are included on the Canada Domestic Substances List (DSL) or are not required to be listed on the Canada Domestic Substance List (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 (AICS) or are not required to be listed on the Australian Inventory of Chemical Substances (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 (ENCS) Inventory.

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

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

New Zealand: All components of this product are NOT included on the New Zealand Inventory of Chemical Substances.

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

16. **OTHER INFORMATION**

**NFPA HAZARD RATING**

Health: 0
Fire: 1
Reactivity: 0

**HMIS Rating**

Health: 0
Flammability: 0
Reactivity: 0

**Training advice:**
Read the safety data sheet before using the product.

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.

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