



## Solve 176

### Safety Data Sheet

Date Issued: 03/30/2016

Date Revised: 02/18/2016

#### 1. IDENTIFICATION OF SUBSTANCE/MIXTURE AND OF COMPANY/UNDERTAKING

PRODUCT NAME: **SOLVE 176**

Use of the Substance/mixture: Flocculating agent

Recommended restrictions on use:

COMPANY: WaterSolve, LLC, 5031 68<sup>th</sup> St. S.E. Caledonia, MI 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

##### **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:** Contaminated surfaces will be extremely slippery.

**Skin:** Repeated or prolonged exposure may cause slight irritation of eyes and skin.

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

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

Chemical nature

Anionic polyacrylamide, emulsion.

##### **Hazardous components**

CHEMICAL NAME	CAS-NO.	CONCENTRATION %
Distillates (petroleum), hydrotreated light	064742-47-8	16 - 18 %
Ammonium chloride	12125-02-9	1 to 1.5%

##### **Further information**

Due to the viscosity, this product does not present an aspiration hazard.

#### 4. FIRST AID MEASURES

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

**General Advice:** Show this safety data sheet to the doctor in attendance.

**Ingestion:** If swallowed, call a poison control center or doctor immediately. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person.

**Skin contact:** Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water. Do not reuse contaminated clothing without laundering. Call a physician if irritation persists.

**Eye contact:** Rinse immediately and thoroughly with plenty of water for at least 15 minutes, also under eyelids. Keep eyes wide open when rinsing. Consult a physician if necessary.

**Inhalation:** Remove to fresh air. If breathing is difficult, give oxygen. If symptoms persists, call a physician.

**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. Treat symptomatically.

5. **FIRE FIGHTING MEASURES**

**Suitable Extinguishing Media:** Use water spray, carbon dioxide, alcohol-resistant foam or dry chemical. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media:** Solid water stream, water may be ineffective.

**Special Hazards arising from the substance or mixture:** Contaminated surfaces will be extremely slippery.

**Special protective actions for fire-fighters:** Firefighters, and others exposed, wear self-contained breathing apparatus and protective suit. Wear full firefighting protective clothing. Use NIOSH/MSHA approved respiratory protection.

**Further information:** In the event of fire, cool containers/tanks with water spray.

6. **ACCIDENTAL RELEASE MEASURES**

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

Avoid contact with skin, eyes and clothing. Where the exposure level is not known, wear approved, positive pressure, self-contained respirator. Where the exposure level is known, wear approved respirator suitable for the level of exposure. For personal protection refer to Section 8 (Exposure Controls/Personal Protection) for appropriate personal protective equipment. Use chemical resistant boots.

**Environmental precautions**

Discharge into the environment must be avoided. Prevent product from entering drains.

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

Sweep up to prevent slipping hazard. Hazard of slipping on spilt product. Soak up with inert absorbent material (e.g. sand, gel, acid binder, universal binder, sawdust). Shovel into suitable container for disposal. After cleaning, flush away traces with water. Use detergent if needed.

7. **HANDLING AND STORAGE**

**Precautions for safe handling**

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

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

Store at room temperature. To avoid product degradation and equipment corrosion, do not use iron, copper or aluminum containers or equipment. Flashpoint determination was performed using a Pensky Martens type closed cup method. The method indicates a flash point greater than 93.3°C (200°F). Although there was no flashpoint detected below 93.3°C (200°F) some flammable vapours were evolved during the test as evidenced by the enlargement of the flame. Therefore caution should be exercised during storage and handling.

**Material to avoid:**

Strong oxidizing agents

**Storage stability:**

**Other data:** Store at room temperature Reason: integrity

8. **EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Components with workplace control parameters**

Components	CAS-No.	Value	From of exposure	Control parameters	Update	Basis
Distillates (petroleum), hydrotreated light	64742-47-8		Vapour	197 ppm 1,200 mg/m <sup>3</sup>	2006-11-29	CA BC OEL
		TWA		200 mg/m <sup>3</sup>		

**Appropriate Engineering controls:**

Dose and handle in closed system if possible. Handle only in a place equipped with local exhaust (or other appropriate exhaust). Avoid contact with skin, eye and clothing. Do not breathe vapour. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use.

Handle in accordance with good industrial hygiene and safety practice. Wash hands before eating, drinking, or smoking. Wash hands before breaks and immediately after handling the product. Ensure adequate ventilation. Ensure that eyewash stations and safety showers are close to workstation location.

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

**Respiratory protection:**

Where exposures are below the established exposure limit, no respiratory protection is required. Where there is a potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.

**Hand protection**

Impervious gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. 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.

**Eye protection:**

Tightly fitting safety goggles. Ensure that eyewash equipment and safety shower are close to the workstation location.

**Skin protection:**

Avoid skin contact. Chemical resistant protective clothing, including long sleeved clothing.

**Additional Advice:**

Food, beverages, and tobacco products should not be carried, stored, or consumed where this material is in use. Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water.

**Environmental exposure controls:** No data available.

9. **PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

Physical state:	liquid
Odor:	mild petroleum odor
Color:	white
Freezing point:	< 20°F
Initial Boiling Point/Range:	212 °F
Flash point:	>201°F closed cup (Pensky-Martens)
Evaporation rate:	<1 (n-butyl acetate=1)
Vapor Pressure:	10 (< 77°F)
Density:	1.045 ó 1.055 g/cm <sup>3</sup> (77°F)
pH:	6 ó 8
Solubility in Water:	dispersible
Explosive properties	
Limits Lower/Upper):	Not available
Decomposition temp:	Not available

Partition coefficient:  
n-octanol/water: Not applicable  
Oxidizing potential: The substance or mixture is not classified as oxidizing.  
Saturation in air (% vol.): No data available  
Surface tension: No data available

## 10. STABILITY AND REACTIVITY

**Reactivity:** stable under recommended storage conditions.

**Chemical stability:** No decomposition if stored and applied as directed.

### **Possibility of hazardous reactions**

Hazardous reactions: hazardous polymerization does not occur.

### **Conditions to avoid**

Conditions to avoid: Stable under recommended storage conditions.

### **Incompatible materials**

Material to avoid: Strong oxidizing agents

### **Hazardous decomposition products**

Hazardous decomposition: Products: Carbon oxides, Ammonia, nitrogen oxides

Thermal decomposition: Note: No data available.

## 11. TOXICOLOGICAL INFORMATION

### **Information on toxicological effects**

#### **Acute oral toxicity**

Remarks: Information given is based on data on the components and the toxicology of similar products. No data is available on the product itself.

#### **Acute oral toxicity**

**Distillates (petroleum), hydrotreated light:**

LD50/Rat: > 5,000 mg/kg

#### **Acute inhalation toxicity**

Remarks: No data is available on the product itself.

#### **Acute inhalation toxicity**

**Distillates (petroleum), hydrotreated light:**

LC50/Rat/4h/ >5.2 mg/l

#### **Acute dermal toxicity**

No data is available on the product itself.

#### **Acute dermal toxicity**

**Distillates (petroleum), hydrotreated light:**

LD50/Rabbit/> 2,000 mg/kg

#### **Skin corrosion/irritation**

Remarks: Prolonged or repeated contact may dry skin and cause irritation.

Conclusion: Based on available data, the classification criteria are not met.

#### **Skin corrosion/irritation**

**Ammonium chloride:** Rabbit

**Result:** No skin irritation

#### **Serious eye damage**

#### **/eye irritation**

Remarks: May cause mild irritation.

Conclusion: Based on available data, the classification criteria are not met.

#### **Serious eye damage**

#### **/eye irritation**

**Ammonium chloride:** Rabbit

**Result:** Irritating to eyes.

#### **Respiratory or skin sensitization**

#### **Skin sensitization**

Conclusion: Based on available data, the classification criteria are not met.

#### **Skin sensitization**

**Distillates (petroleum), hydrotreated light:**

Conclusion: This substance is not classified as a sensitizer.

**Ammonium chloride:** Guinea pig

**Result:** Not sensitizing.

**Germ cell mutagenicity**

**Genotoxicity in vitro:**

**Distillates (petroleum), hydrotreated light:**

Conclusion: No known effect.

**Ammonium chloride:**

Ames Test/bacterium (*Salmonella typhimurium*) with

And without Result: Negative

**Genotoxicity in vitro:**

**Distillates (petroleum), hydrotreated light:**

Conclusion: not mutagenic

**Carcinogenicity**

Remarks: No known carcinogenic effects.

Based on available data, the classification criteria are not met.

**Carcinogenicity**

**Distillates (petroleum), hydrotreated light:**

Not classified by IARC or NTP.

**Reproductive toxicity**

**Toxicity for reproduction:**

**Distillates(petroleum),hydrotreated light:**

Conclusion: Did not show teratogenic effects in animal experiments.

12. **ECOLOGICAL INFORMATION**

**Ecotoxicity effects**

**Aquatic toxicity**

LC50/96h/Fathead minnow(*Pimephales promelas*)/Acute Fish toxicity/EPA Whole Effluent Toxicity Method 600/4-90/027F: 10.02 mg/l

Remarks: Ecotoxicological information provided is based on a structurally or compositionally similar product.

LC50/48h/Water flea(*Ceriodaphnia dubia*)/EPA Whole Effluent Toxicity Method 600/4-90/027F: 11.31 mg/l

Remarks: Ecotoxicological information provided is based on a structurally or compositionally similar product.

Remarks: No data available

**Ammonium chloride:**

LC50/96h/Carp (*Cyprinus carpio*)/Static test: 209 mg/l

EC50/24h/Water flea (*Daphnia magna*): 202 mg/l

**Toxicity to other organisms:** No data available.

**Persistence and degradability:**

Biological degradability: Remarks: No data available

The Polymeric ingredient is not readily biodegradable.

**Biological degradability:**

**Ammonium chloride:** The methods for determining biodegradability are not applicable to inorganic substances.

**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: No data available

**Ammonium chloride:** No data available

**Mobility in soil**

Vapour pressure: 10 (<77° F)

Water solubility: dispersible

Surface tension: No data available

**Other adverse effects**

No data available

Additional ecological information: Ecotoxicological information provided is based on a structurally or compositionally similar product.

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.

EPA Hazardous Waste- NO

**Contaminated packaging**

Dirty package must be disposed of in the same way as the product itself. Must be disposed of in accordance with local, state, national and international 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**

No data available

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: Yes

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) < 0.1 %

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.

### **OTHER INFORMATION**

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

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

**Fire 1** 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: 1**

**Reactivity: 0**

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

**DATE ISSUED: 2/18/2016**

**DATE REVISED: 2/18/2016**

### **OTHER INFORMATION**

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  
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  
SDS: Safety Data Sheet  
STEL: Short-term exposure limit  
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