



## Solve 177

# Safety Data Sheet

Date Issued: 01/27/2020

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### 1. IDENTIFICATION

**PRODUCT NAME:** SOLVE 177

#### **RECOMMENDED USE OF THE CHEMICAL AND RESTRICTIONS ON USE**

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

#### **GHS Classification**

The material is not hazardous under the criteria of the 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.

#### **Hazard(s) not otherwise classified (HNOC) or not covered/classified by GHS**

**Advice:** Solutions extremely slippery when spilled.

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

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### **Substances/Mixtures**

Mixture

Chemical nature

Anionic polyacrylamide, emulsion.

#### **Hazardous components**

CHEMICAL NAME	CAS-NO.	CONCENTRATION (%)
Distillates (petroleum), hydrotreated light	64742-47-8	16 - 18 %

### 4. FIRST AID MEASURES

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

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

**Ingestion:** If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel. 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. Wash contaminated clothing before reuse. Call a physician if irritation persists.

**Eye contact:** Rinse immediately and thoroughly with plenty of water for at least 15 minutes, also under eyelids. If symptoms persist, call a physician.

**Inhalation:** Remove to fresh air. If breathing is difficult, give oxygen. If symptoms persist, 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 (CO<sub>2</sub>), alcohol-resistant foam or dry chemical.

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

**Special Hazards arising from the substance or mixture:** No information available.

**Special protective actions for fire-fighters:** Wear self-contained breathing apparatus and protective suit. Use NIOSH/MSHA approved respiratory protection.

**Further information:** Cool containers/tanks with water spray.

6. **ACCIDENTAL RELEASE MEASURES**

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

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. 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**

Danger for slipping. 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.

**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. Avoid contact with eyes, skin and clothing.

**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.

Store in original container.

**Materials for packaging**

Unsuitable material: To avoid product degradation and equipment corrosion, do not use iron, copper or aluminum containers or equipment.

**Material to avoid:**

Strong oxidizing agents

**Storage stability:**

Storage temperature: 20 – 35 °C

Other data: Reason: integrity

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Components with workplace control parameters**

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

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>		

**Appropriate Engineering controls:**

Dose and handle in closed system if possible. Handle only in a place equipped with local exhaust (or other appropriate exhaust). Remove and wash contaminated clothing before re-use. Ensure that eyewash stations and safety showers are close to workstation location. Wash hands before breaks and immediately after handling the product. Ensure adequate ventilation.

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

**Industrial Hygiene**

Handle in accordance with good industrial hygiene and safety practice.

**Respiratory protection**

When there is 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. 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. Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough.

**Skin and body protection**

Protective clothing.

**Eye protection**

Tightly fitting safety goggles.

### Environmental exposure controls

No data available

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Physical state:	liquid
Color:	white
Odour:	hydrocarbon-like
Odour Threshold:	No data available
pH:	6 – 8
Freezing/Melting point:	19.4 °F
Initial Boiling Point/Range:	> 212 °F
Flash point:	> 201 °F (closed cup)
Evaporation rate:	< 1 (n-butyl acetate=1)
Flammability (solid, gas)	not flammable
Explosive properties:	
Lower explosion limit	No data available
Upper explosion limit	No data available
Oxidizing properties	The substance or mixture is not classified as oxidizing.
Vapor Pressure:	approx. 13.33 hPa
Relative vapour density	No data available
Density:	1.04 – 1.09 g/cm <sup>3</sup> (77 °F)
Relative density:	No data available
Bulk density:	8.7 – 9.1 lb/gal
Solubility in Water:	dispersible
Partition coefficient:	
n-octanol/water:	Not applicable
Auto-ignition temperature:	> 302 °F
Decomposition temp:	>392 °F>200 °C
Viscosity:	
Kinematic	> 20.5 mm <sup>2</sup> /s (40 °C)
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 normal conditions.

### Chemical stability

The product is chemically stable.

### Possibility of hazardous reactions

Hazardous polymerization does not occur.

### Conditions to avoid

Stable under normal conditions.

### Incompatible materials

Strong oxidizing agents.

### Hazardous decomposition products

Carbon oxides, ammonia, and Nitrogen Oxides (NO<sub>x</sub>)

11. **TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

<b>Acute oral toxicity</b>	Remarks: Information given is based on data on the components and the toxicology of similar products. No data is available on the product itself. Conclusion: Product: Acute toxicity estimate > /2,000 mg/kg
<b>Acute oral toxicity</b>	<b>Distillates (petroleum), hydrotreated light:</b> LD50/Rat > /5,000 mg/kg <b>Ammonium chloride:</b> LD50/Rat/1,410 mg/kg
<b>Acute inhalation toxicity</b>	Acute toxicity estimate/4 h > /20 mg/l
<b>Acute inhalation toxicity</b>	<b>Distillates (petroleum), hydrotreated light:</b> LC50/Rat/4 h > /5.2 mg/l
<b>Acute dermal toxicity</b>	Acute toxicity estimate > /2,000 mg/kg
<b>Acute dermal toxicity</b>	<b>Distillates (petroleum), hydrotreated light:</b> LD50/Rabbit > /2,000 mg/kg
<b>Skin corrosion/irritation</b>	Remarks: Prolonged or repeated contact may dry skin and cause irritation. Conclusion: Based on available data, the classification criteria are not met.
<b>Skin corrosion/irritation</b>	<b>Ammonium chloride:</b> Rabbit: Result: No skin irritation
<b>Serious eye damage /eye irritation</b>	Remarks: May cause mild irritation. Conclusion: Based on available data, the classification criteria are not met.
<b>Serious eye damage /eye irritation</b>	<b>Ammonium chloride:</b> Rabbit <b>Result:</b> Irritating to eyes.
<b>Respiratory or skin sensitization</b>	
<b>Skin sensitization</b>	Conclusion: Based on available data, the classification criteria are not met.
<b>Skin sensitization</b>	<b>Distillates (petroleum), hydrotreated light:</b> Conclusion: This substance is not classified as a sensitizer. <b>Ammonium chloride:</b> Guinea pig Result: Not sensitizing.
<b>Germ cell mutagenicity</b>	
<b>Genotoxicity in vitro</b>	Conclusion: Based on available data, the classification criteria are not met.
<b>Genotoxicity in vitro</b>	<b>Distillates (petroleum), hydrotreated light:</b> Conclusion: No known effect. <b>Ammonium chloride:</b>

Ames test/Salmonella typhimurium (bacterium)/with and without.  
Result: negative

**Genotoxicity in vivo**

**Distillates (petroleum), hydrotreated light:**  
Conclusion: not mutagenic

**Carcinogenicity**

**Carcinogenicity**

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**

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

**Toxicity for reproduction**

**Distillates(petroleum), hydrotreated light:**  
Conclusion: Did not show teratogenic effects in animal experiments.

**Aspiration hazard**

**Aspiration toxicity**

No aspiration toxicity classification

12. **ECOLOGICAL INFORMATION**

**Ecotoxicity effects**

**Aquatic toxicity**

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

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

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

Remarks: No data available

**Ammonium chloride:**

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

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

**Toxicity to other organisms**

Remarks: 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**

Partition coefficient: n-octanol/water: Not applicable

**Mobility in soil**

Vapour pressure: approx. 13.33 hPa (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**

Dispose of in compliance with local and national regulations. Recycling, recovery and reuse of materials is recommended if permitted by regulations. Incineration is recommended.

**Contaminated packaging**

Dirty package must be disposed of in the same way as the product itself.

**14. TRANSPORT INFORMATION**

**Land transport**

Not classified as dangerous in the meaning of transport regulations.

Store between 5-30 °C.

Protect from frost.

Keep away from direct sunlight.

**Sea Transport**

Not classified as dangerous in the meaning of transport regulations.

Store between 5-30 °C.

Protect from frost.

Keep away from direct sunlight.

**Air transport**

Not classified as dangerous in the meaning of transport regulations.

Store between 5-30 °C.

Protect from frost.

Keep away from direct sunlight.

**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:**

The material is not hazardous under the criteria of the 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.

**SARA 302 Extremely Hazardous Substances**

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

**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.

**California Proposition 65**

WARNING: This product contains a chemical(s) known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Acrylamide (79-06-1) < 0.1 %

**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 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 Substances 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: This product's Australian Inventory of Chemical Substances (AICA) status has not been determined.

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

Japan: This product's Japanese (ENCS) inventory status has NOT been determined.

Korea: This product's Korean (ECL) inventory status has NOT been determined.

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

Philippines: This product's Philippine (PICCS) inventory status has NOT been determined.

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

**16. OTHER INFORMATION**

**NFPA RATING**

Health:	1
Fire:	1
Reactivity:	0

**HMIS Rating:**

Health:	1
Flammability:	1
Reactivity:	0

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

**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