



Solve 177

Safety Data Sheet

Date Issued: 10/03/2016

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

PRODUCT NAME: **SOLVE 177**

Use of the Substance/mixture: Flocculating agent

Recommended restrictions on use:

COMPANY: **WaterSolve, LLC, 5031 68th 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'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: 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

Chemical nature

Anionic polyacrylamide, emulsion.

Hazardous components

CHEMICAL NAME	CAS-NO.	CONCENTRATION %
Distillates (petroleum), hydrotreated light	64742-47-8	16 - 18 %
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	0 - 8%
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	0 - 8%

4. FIRST AID MEASURES

Description of first aid measures

Ingestion: If swallowed, DO NOT induce vomiting unless directed to do so by a 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. Do not reuse 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.

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 (CO₂), 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 (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

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.

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.

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 ³		
		TWA		200 mg/m ³	2006-11-29	CA BC OEL

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.

Individual protection measures, such as personal protective equipment

Respiratory protection

Skin and body protection

Eye protection/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
 Evaporation rate: <1 (n-butyl acetate=1)
 Vapor Pressure: 10 (< 77°F)
 Density: 1.045 – 1.055 g/cm³ (77°F)
 pH: 6 – 8
 Solubility in Water: dispersible
 Explosive properties
 Limits Lower/Upper): No data available
 Decomposition temp: No data available
 Partition coefficient:
 n-octanol/water: Not applicable
 Oxidizing potential: The substance or mixture is not classified as oxidizing.
 Surface tension: No data available

10. **STABILITY AND REACTIVITY**

Reactivity

Chemical stability

Possibility of hazardous reactions

Hazardous reactions: Hazardous polymerization does not occur.

Conditions to avoid

Conditions to avoid: Stable under normal conditions.

Incompatible materials

Materials to avoid: Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition: Products: Carbon oxides, Ammonia, nitrogen oxides (NO_x)

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 Ammonium chloride: LD50/Rat: 1,410 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/Salmonella typhimurium (bacterium)/with and without Result: Negative
Genotoxicity in vivo:	Distillates (petroleum), hydrotreated light: Conclusion: not mutagenic
Carcinogenicity 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

Packages that cannot be cleaned must be disposed of the same way as the unused product. 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

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.

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 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: 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.

OTHER INFORMATION

NFPA HAZARD RATING (National Fire Protection Association)

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.

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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