



## Solve 126

### Safety Data Sheet

Date Issued: 04/16/2018

Date Revised: 11/30/2016

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

PRODUCT NAME: **SOLVE 126**

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**

Eye irritation; Category 2; Causes serious eye irritation.

**GHS-Labeling**

**Hazard pictograms**



**Signal Word:** WARNING

**Hazard statements:** H319 Causes serious eye irritation.

**Precautionary Statements:**

<b>Prevention:</b>	
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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P337 + P313	If eye irritation persists: Get medical advice/attention.
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**Other hazards which do not result in classification**

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

**Potential environmental effects:** This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels

of 0.1 % or higher.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Substances/Mixtures

Chemical nature

Cationic polyacrylamide, emulsion.

#### Hazardous components

CHEMICAL NAME	CAS-NO.	CONCENTRATION %
Distillates (petroleum), hydrotreated light	064742-47-8	20 - 24 %
Alcohols, C10-16, ethoxylated	68002-97-1	0 – 2.7%
Alcohols, C12-14, ethoxylated	68439-50-9	0 – 2.7 %
Alcohols, C12-16, ethoxylated	68551-12-2	0 – 2.7%

Components listed above that have a zero minimum and a common maximum range and interchangeably used components based on availability. Only one of these components is contained in the product up to the maximum amount noted.

### 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 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.**

### 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:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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

**Special protective actions for fire-fighters:** Wear self-contained breathing apparatus and protective suit.

**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**

Hazard of slipping on spilt product. Soak up with inert absorbent material. Shovel into suitable container for disposal. Flush 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**

Do not freeze. Keep containers tightly closed in a dry, cool and well-ventilated place.

**Materials for packaging**

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

**Material to avoid:**

Strong oxidizing agents

**Storage stability:**

Storage temperature: 39.2 – 89.6 °F

**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>		
		TWA		200 mg/m <sup>3</sup>	2006-11-29	CA BC OEL

**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 adequate ventilation. Ensure that eyewash stations and safety showers are close to workstation location. Ensure adequate ventilation.

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

**Respiratory protection:**

Where exposures are below the established exposure limit, no respiratory protection is required. Where exposures exceed the established exposure limit, use respiratory protection recommended for the material and level of exposure.

**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.

**Eye protection:**

Tightly fitting safety goggles or face-shield.

**Skin and body protection:**

Protective clothing.

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

**9. PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties**

Physical state:	liquid, viscous
Odor:	slight, hydrocarbon-like
Color:	opaque, greenish, to milky white
pH:	3 - 6
Melting point/range:	Not applicable
Initial Boiling Point/Range:	212 °F
Flash point:	>199.4°F (closed cup) (Pensky-Martens)
Evaporation rate:	No data available
Vapor Pressure:	Similar to water
Relative vapor density:	No data available
Density:	ca. 1.02 g/cm <sup>3</sup>
Solubility in Water:	Limited by viscosity
Explosive properties	
Lower explosion limit:	No data available
Upper explosion limit:	No data available
Decomposition temp:	No data available
Partition coefficient:	
n-octanol/water:	Not applicable
Viscosity, kinematic:	> 20.5 mm <sup>2</sup> /s ( 40°C)
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**

Material to avoid: Strong oxidizing agents

**Hazardous decomposition products**

Hazardous decomposition: Products: Carbon oxides, Ammonia, nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride (HCl)

Thermal decomposition: Note: No data available.

## 11. TOXICOLOGICAL INFORMATION

### Information on toxicological effects

Acute oral toxicity	LD50/Rat: >10,000 mg/kg Remarks: estimated
Acute oral toxicity	<b>Distillates (petroleum), hydrotreated light:</b> LD50/Rat: > 5,000 mg/kg <b>Citric acid:</b> LD50/Rat: 11,700 mg/kg
Acute inhalation toxicity	LC50/Rat/4h/ >20.0 mg Remarks: estimated
Acute inhalation toxicity	<b>Distillates (petroleum), hydrotreated light:</b> LC50/Rat/4h/ >5.2 mg/l
Acute dermal toxicity	LD50/Rabbit/> 10,000 mg/kg Remarks: estimated
Acute dermal toxicity	<b>Distillates (petroleum), hydrotreated light:</b> LD50/Rabbit/> 2,000 mg/kg
Skin corrosion/irritation	OECD Test Guideline 439/Read-across (Analogy) Conclusion: No skin irritation.
Serious eye damage /eye irritation	Calculation method Conclusion: Causes serious eye irritation.
Respiratory or skin sensitization Skin sensitization	Conclusion: Not sensitizing.
Skin sensitization	<b>Distillates (petroleum), hydrotreated light:</b> Conclusion: This substance is not classified as a sensitizer.
Germ cell mutagenicity Genotoxicity in vitro:	Conclusion: No data available
Genotoxicity in vitro:	<b>Distillates (petroleum), hydrotreated light:</b> Conclusion: No known effect.
Genotoxicity in vivo:	<b>Distillates (petroleum), hydrotreated light:</b> Conclusion: not mutagenic
Carcinogenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	<b>Distillates (petroleum), hydrotreated light:</b> Not classified by IARC or NTP.  <b>Citric acid:</b> Oral/Rat / 2 years

Result: Animal testing did not show any carcinogenic effects.

**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.

**Citric acid:** Oral/Rat

Result: No impairment of fertility has been observed.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity effects**

**Aquatic toxicity**

LC50/96h/(*Danio rerio*) Zebra fish/OCED Test Guideline 203: >1-10 mg/l

EC50/48h/(*Daphnia magna*) Water Flea (Immobilization/OECD Test Guideline 202: >10 – 100mg/l

IC50/72h/ GreenAlgae (*Selenastrum capricornutum*) /Growth inhibition/OECD Test Guideline 201:

Due to the cationicity of the polymer, test is not appropriate.

Remarks: Information given is based on data obtained from similar substances.

**Citric acid:**

LC50/96 h/Goldfish (*Carassius auratus*)/DIN 38412: 440 – 706 mg/l

**Toxicity to other organisms:**

No data available.

**Citric acid:**

Bacteria/DIN 38412, part 5: > 10,000 mg/l

**Persistence and degradability:**

Biological degradability: /OECD Test Guideline 301B:

The polymeric ingredient is not readily biodegradable, but degradable by hydrolysis.

**Biological degradability:**

**Citric acid:**

DIN 38412/ 2d: 98 % Readily biodegradable

Biochemical Oxygen Demand (BOD): 575 – 675 mg/g (5 d)

Chemical Oxygen Demand (COD): 700 – 800 mg/g

**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.

**Citric acid:** Does not bioaccumulate.

**Mobility in soil**

Water solubility: Limited by viscosity.

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. Incineration is recommended.

EPA Hazardous Waste- NO

**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**

**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 %

Ethylene oxide (75-21-8) <=0.25 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:**

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.

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).

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.

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

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

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

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

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

16.

**OTHER INFORMATION**

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

**Health 2**

**Fire 1**

**Reactivity 0**

**HMIS Rating:**

**Health: 2**

**Flammability: 1**

**Reactivity: 0**

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

**DATE ISSUED: 04/16/2018**

**DATE REVISED: 11.30/2016**

**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