



## Solve 126

### Safety Data Sheet

Date Issued: 06/10/2021

Date Revised: 06/01/2020

#### 1. IDENTIFICATION

PRODUCT NAME: **SOLVE 126**

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**

Eye irritation; Category 2

##### **GHS-Labeling**

##### **Hazard pictograms**



Signal Word: **WARNING**

Hazard statements: H319 Causes serious eye irritation.

Precautionary Statements: **Prevention:**  
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.  
P337 + P313 If eye irritation persists: Get medical advice/attention.

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

**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

Mixture

Chemical nature

Cationic polyacrylamide, emulsion.

#### Hazardous components

CHEMICAL NAME	CAS-NO.	CONCENTRATION %
Distillates (petroleum), hydrotreated light	64742-47-8	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. Wash contaminated clothing before reuse. 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.

Symptoms

Irritation

Hazards

Risk of serious damage to eyes

#### Indication of immediate medical attention and special treatment needed, if necessary

Treatment

Symptomatic treatment

### 5. FIRE FIGHTING MEASURES

**Suitable Extinguishing Media:** 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 see 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.

**Additional advice**

If the product contaminates rivers and lakes or drains inform respective authorities.

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**

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:**

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**

### **Industrial Hygiene**

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

### **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.

### **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
Form:	viscous
Color:	opaque, greenish, to milky white
Odor:	slight, hydrocarbon-like
Odor Threshold	No data available
pH:	3 – 6 (as aqueous solution)
Freezing point/Melting point:	Not applicable
Initial Boiling Point/Range:	212 °F
Flash point:	>199.4°F (closed cup) (Pensky-Martens)
Evaporation rate:	No data available
Flammability (solid, gas):	Not classified as a flammability hazard
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:	Similar to water
Relative vapor density:	No data available
Density:	ca. 1.02 g/cm <sup>3</sup>
Relative density:	No data available
Solubility in Water:	Limited by viscosity
Partition coefficient:	
n-octanol/water:	Not applicable
Auto-ignition temperature:	No data available
Decomposition temp:	No data available
Viscosity, kinematic:	> 20.5 mm <sup>2</sup> /s ( 104 °F)
Oxidizing potential:	The substance or mixture is not classified as oxidizing.
Surface tension:	No data available

10. **STABILITY AND REACTIVITY**

<b>Reactivity:</b>	No data available
<b>Chemical stability:</b>	Stable under normal conditions.
<b>Possibility of Hazardous reactions:</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid:</b>	Stable under normal conditions.
<b>Incompatible materials:</b>	Strong oxidizing agents
<b>Hazardous decomposition products:</b>	Carbon oxides, Ammonia, nitrogen oxides (NOx), Hydrogen chloride (HCl)

11. **TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

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

Conclusion: No known effect.

**Genotoxicity in vivo:**

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

Conclusion: not mutagenic

**Carcinogenicity**

**Carcinogenicity**

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

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

Not classified by IARC or NTP.

**Citric acid:**

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:**

Rat/Oral

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 capricomutum) /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:**

Partition coefficient: n-octanol/water: Not applicable.

**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.

**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.

**15. REGULATORY INFORMATION**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**SARA Title III Section 311 Categories:**

Eye irritation; Category 2.

**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 of other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Acrylamide (79-06-1) < 0.02 %

Ethylene oxide (75-21-8) <=0.25 PPM

**Notification status:**

European Union: All components of this product are included in the European Inventory of Existing Chemical Substances (EINECS) or are not required to be listed on EINECS.

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 Substances List (DSL).

Australia: 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).

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.

South 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.

**16. OTHER INFORMATION**

**NFPA RATING**

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.

**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