



## Solve 155

### Safety Data Sheet

Date Issued: 07/29/2019

Date Revised: 11/28/2016

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

PRODUCT NAME: SOLVE 154  
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. [www.gowatersolve.com](http://www.gowatersolve.com)  
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 damage

##### 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.

##### 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

Anionic polyacrylamide in water-in-oil emulsion.

**Hazardous components**

CHEMICAL NAME	CAS-NO.	CONCENTRATION %
Distillates (petroleum), hydrotreated light	64742-47-8	21 - 26 %
Alcohols, C10-16, ethoxylated	68002-97-1	0 – 2.9 %
Alcohols, C12-14, ethoxylated	68439-50-9	0 – 2.9 %
Alcohols, C12-16, ethoxylated	68551-12-2	0 – 2.9 %

Components listed above that have a zero minimum and a common maximum range are 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**

**Ingestion:**

If swallowed, call poison control center or a physician 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 without delay. 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 persist, call a physician.

**Most important symptoms and effects, both acute and delayed.**

5. **FIRE FIGHTING MEASURES**

**Suitable Extinguishing Media:**

Use water spray, alcohol-resistant foam, carbon dioxide (CO<sub>2</sub>), 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 suite.

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. Use chemical resistant boots. For personal protection see Section 8.

**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, silica 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. Handle product only in closed system or provide appropriate exhaust ventilation at machinery.

**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 close cup test 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 vapors were evolved during the test as evidenced by the enlargement of the test flame: Therefore, caution should be exercised during storage and handling.

**Materials to avoid:**

Strong oxidizing agents

Storage stability:

Storage temperature: 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>		
		TWA		200 mg/m <sup>3</sup>	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 the workstation location. Wash hands before breaks and immediately after handling the product.

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

**Respiratory protection:**

When there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.

**Hand protection**

Glove material: Imperious gloves. Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough.

**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**

<b>Physical state:</b>	liquid, emulsion
<b>Color:</b>	greyish white
<b>Odor:</b>	ammoniacal
<b>pH:</b>	6-8 (as aqueous solution)
<b>Melting Point/Range:</b>	-0.4°C - 32°F
<b>Initial boiling point/range:</b>	177-260 °F
<b>Flash point:</b>	200°F (closed cup)
<b>Evaporation rate:</b>	No data available
<b>Explosive properties</b>	
<b>Lower explosion limit</b>	No data available
<b>Upper explosion limit</b>	No data available
<b>Vapor pressure:</b>	No data available
<b>Relative Vapor Density:</b>	No data available
<b>Density:</b>	ca. 1.0 g/cm <sup>3</sup>
<b>Water solubility(ies):</b>	Limited by viscosity.
<b>Partition coefficient:</b>	
<b>n-octanol/water:</b>	No data available
<b>Decomposition temp:</b>	No data available
<b>Surface tension:</b>	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: No data available.

**Incompatible materials**

Materials to avoid: Strong oxidizing agents.

**Hazardous decomposition products**

**Products:** Carbon oxides, Ammonia, Nitrogen oxides (NOx)

**Thermal decomposition:** Note: No data available.

11. **TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

<b>Acute oral toxicity:</b>	LD50/Rat >/5,000 mg/kg Remarks: Estimated
<b>Acute oral toxicity:</b>	<b>Distillates (petroleum), hydrotreated light:</b> LD50/Rat/>5,000 mg/kg
<b>Acute inhalation toxicity:</b>	LC50/Rat/4h / >20.0 mg/l Remarks: Estimated
<b>Acute inhalation toxicity:</b>	<b>Distillates (petroleum), hydrotreated light:</b> LC50/Rat/4h/ > 5.2 mg/l
<b>Acute dermal toxicity:</b>	LD50/Rabbit/> 2,000 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: 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>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>Genotoxicity in vivo:</b>	<b>Distillates (petroleum), hydrotreated light:</b> Conclusion: Not mutagenic
<b>Carcinogenicity:</b>	Based on available data, the classification criteria are not met.
<b>Carcinogenicity:</b>	<b>Distillates (petroleum), hydrotreated light:</b> Not classified by IARC or NTP.
<b>Reproductive toxicity</b>	
<b>Toxicity for reproduction:</b>	Conclusion: Based on available data, the classification criteria are not met.
<b>Toxicity for reproduction:</b>	<b>Distillates (petroleum), hydrotreated light:</b>

Conclusion: Did not show teratogenic effects in animal experiments.

## 12. ECOLOGICAL INFORMATION

### **Ecotoxicity effects**

#### **Aquatic toxicity**

This material is not classified as dangerous for the environment. Acute toxicity tests conducted using environmentally representative water.

LC50/96 hr/Pimephales promelas (fathead minnow) /US EPA TSCA Test Guidelines: 21 mg/l

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

LC50/96 h/Danio rerio (Zebra fish)/ OECD Test Guideline 203: >100 mg/l

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

EC50/10 d/ Corophium volutator (Amphipoda)/PARCOM: 857 mg/l

EC50/48 h/ Acartia tonsa (Copepod)/PARCOM: 7.4 mg/l

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

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

LC50/48 h/Daphnia magna (Water Flea) /US EPA TSCA Test Guidelines 1.96 mg/l

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

IC50/72 h/ Skeletonema costatum (Diatom)/ISO 10253: ca. 27 mg/l

IC50/72 h/Green algae (Selenastrum capricornutum)/Growth inhibition/OECD Test Guideline 201: >100 mg/l

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

#### **Toxicity to other organisms:**

No data available.

#### **Persistence and degradability:**

Biological degradability:

Modified Sturm Test /OECD Test Guideline 301B:

The polymeric ingredient is not readily biodegradable.

Seawater Shake Flask Method/OECD Test Guideline 306/29 d: 13%

#### **Bioaccumulative potential**

Because of the high molecular weight of the polymer diffusion through biological membranes is very small. Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water: No data available

#### **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 material 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.

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**

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 requirement of SARA Title III, Section 302.

None present ()

**Section 313 Specific Toxic Chemicals 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) < 0.02 %

Remarks: This product contains a chemical or chemicals known to the state of California to cause cancer, birth defects or other reproduction harm.

**Other regulations:** None

**Notification status:**

All components of this product are included in 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 in the Canada Domestic Substance List (DSL) or are not required to be listed on the Canada Domestic Substance List (DSL).

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.

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

<b>Health</b>	<b>2</b>
<b>Fire</b>	<b>1</b>
<b>Reactivity</b>	<b>0</b>

### **HMIS Rating:**

<b>Health:</b>	<b>2</b>
<b>Flammability:</b>	<b>1</b>
<b>Reactivity:</b>	<b>0</b>

### **Training advice**

Read the safety data sheet before using this product.

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