



## Solve 137

### Safety Data Sheet

Date Issued: 04/27/2018

Date Revised: 11/28/2016

#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **SOLVE 137**

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 irritation

**GHS-Labeling**

**Signal Word:**

**WARNING**

**Hazard pictograms**



**Hazard statements:**

H319

Causes skin 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

Cationic polyacrylamide.

#### **Hazardous components**

<b>CHEMICAL NAME</b>	<b>CAS-NO.</b>	<b>CONCENTRATION %</b>
Distillates (petroleum), hydrotreated light	064742-47-8	20 – 23%
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 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**

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

**Ingestion:** Rinse mouth with water. Call a physician immediately. DO NOT induce vomiting.

**Skin contact:** Remove contaminated clothing and shoes without delay. Wash immediately with plenty of water. Consult a physician if necessary.

**Eye contact:** Rinse thoroughly with plenty of water, also under eyelids. Obtain prompt medical consultation, preferably from an ophthalmologist.

**Inhalation:** Remove to fresh air. If there is difficulty in breathing, medical advice is required.

**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>), or dry chemical.

**Special Hazards arising from the substance or mixture:**

Burning may produce toxic and irritant gases.

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

**Further information:** Prevent fire extinguishing water from contaminating surface water or the ground water system. In the event of fire, cool tanks with water spray.

#### **6. ACCIDENTAL RELEASE MEASURES**

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

For personal protection, refer to Section 8. Avoid contact with skin, eyes and clothing. 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.

##### **Environmental precautions**

Prevent leakages from entering drains and ditches that lead to natural waterways.

##### **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**

Store at room temperature in the original container. 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 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 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

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Components with workplace control parameters**

Components	CAS-No.	Value	Form 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 before breaks and immediately after handling the product. Avoid contact with skin, eyes and clothing. Do not breathe vapour. 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. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

**Skin and Body Protection**

**Eye protection:**

Tightly fitting safety goggles.

**Environmental exposure controls**

No data available

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

Appearance and Odor:	Liquid
Colour:	Off-white
Odour:	Hydrocarbon-like
Initial Boiling Point/Range:	Boiling point/boiling range ca. 347 °F Oil phase Boiling point/boiling range ca. 212°F aqueous phase
Vapor Pressure:	Similar to water
Density:	Similar to water
pH:	3-4 Aqueous solution
Solubility in Water:	Limited by viscosity
Flash point:	> 212°F (closed cup) (Pensky-Martens)

Explosive properties	
Lower limit:	No data available
Upper limit:	No data available
Decomposition temp:	No data available
Partition coefficient (n-octanol/water)	No data available
Viscosity, kinematic	> 20.5 mm <sup>2</sup> /s (40°C)
Oxidizing potential	The substance or mixture is not classified as oxidizing.
Surface tension:	Not determined

## 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 recommended storage conditions.

#### Incompatible materials

Material to avoid: Strong oxidizing agents

#### Hazardous decomposition products

Hazardous decomposition

Products: Carbon oxides (CO<sub>x</sub>)  
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

Conclusion: The acute toxicological results displayed may not be the results of actual testing of this material but based on a similar tested material.

Remarks: estimated LD50/Rat/5,000 mg/kg

#### Acute inhalation toxicity

Remarks: estimated LC50/Rat/4h/> 20 mg/l

#### Acute dermal toxicity

Remarks: estimated LD50/Rabbit/> 2,000 mg/kg

#### Skin corrosion/irritation

Remarks: 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.

#### Germ cell mutagenicity

##### Genotoxicity in vivo

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

#### Carcinogenicity

#### Reproductive toxicity

##### Toxicity for reproduction

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

## 12. ECOLOGICAL INFORMATION

### **Ecotoxicity effects**

#### **Aquatic toxicity**

48 hour Toxicity/Daphnia, Daphnia magna/EPA 821-R-02-012 Method: 2021.0 and Conducting acute toxicity tests on test materials with fishes, macroinvertebrates and amphibians  
ASTM E-729-96 Test Results: 48hr./LC50 4.2 mg/L

96 hour Toxicity/Pimephales promelas/EPA 821-R-02-012 Conducting acute toxicity tests on test materials with fishes, macroinvertebrates and amphibians  
ASTM E-729-96 Test results: 96hr/LC50 7.6 mg/L

Algae Test: IC50/algae/Growth inhibition/OECD Test Guideline 201:

Remarks: Method not applicable. Due to the cationicity of the polymer, test is not appropriate.

**Toxicity to other organisms:** No data available.

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

Biological degradability: CO2 Evolution Test/OECD Test Guideline 301B: The polymeric ingredient is not readily biodegradable. Because of the high molecular weight of the polymer diffusion through biological membranes is very small.

#### **Bioaccumulative potential**

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

#### **Mobility in soil**

Water solubility: Limited by viscosity.

Surface tension: Not determined

#### **Other adverse effects**

No data available

Additional ecological information: Low toxicity of aquatic organisms. The effects on aquatic organisms are due to an external (non-systemic) mode of action and are significantly reduced (by a factor of 7-20) within 30 minutes due to the binding of the product to dissolved organic carbon and inorganic sorbents such as clays and silts.

Additional ecological information: This material is not classified as dangerous for the environment.

## 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.

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

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**

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 %

Ethylene oxide (75-21-8) <= 0.3 PPM

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

**Other regulations:** None

#### **Notification status:**

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

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

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

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.

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

## 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.

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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. 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