



## Solve 162

### Safety Data Sheet

Date Issued: 08/15/2018

Date Revised: 08/31/2017

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

PRODUCT NAME: SOLVE 162

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)

Use of the Substance/mixture: Water treatment chemical

Recommended restrictions on use:

#### 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Serious eye damage/eye irritation; Category 1; Causes serious eye damage.

GHS-Labeling

Hazard pictograms



Signal Word: Danger

Hazard statements: H318 Causes serious eye damage.

Precautionary Statements: P280 Prevention: Wear protective gloves/protective clothing/eye protection/face protection.

Response:  
P305 + P351 + P338 + P310

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Hazardous components which must be listed on the label:

68439-50-9 Alcohols, C12-14, ethoxylated

68551-12-2 Alcohols, C12-16, ethoxylated

68002-97-1 Alcohols, C10-16, ethoxylated

**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, emulsion.

**Hazardous components**

CHEMICAL NAME	CAS-NO.	CONCENTRATION %
Distillates (petroleum), hydrotreated light	64742-47-8	22 - 25%
Alcohols, C10-16, ethoxylated	68002-97-1	0 – 3.6%
Alcohols, C12-14, ethoxylated	68439-50-9	0 – 3.6%
Alcohols, C12-16, ethoxylated	68551-12-2	0 – 3.6%
(Z)-Octadec-9-enylamine, ethoxylated	26635-93-8	1.2 – 1.6%
Ammonium acetate	631-61-8	2 – 10%

**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.**

**Further Information**

Ammonium acetate is not a GHS hazardous component in this product. It is listed because Ammonium Acetate is an EPA Reportable Quantity (RQ) spill hazard substance. See Section 14 and 15.

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:** Take off contaminated clothing and shoes immediately. Wash off with plenty of water. Consult a physician if necessary. Wash contaminated clothing before reuse.

**Eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. 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:** In the event of fire, wear self-contained breathing apparatus. Use NIOSH/MSHA approved respiratory protections.

**Further information:** In the event of fire, cool 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**

Should not be released into the environment.

**Methods and materials for containment and cleaning up**

Sweep up to prevent slipping hazard. 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**

**Materials for packaging**

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

**Material to avoid:**

No specific hazards.

Storage stability:

Storage temperature: < 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		vapor	197 ppm 1,200 mg/m <sup>3</sup>		
		TWA		200 mg/m <sup>3</sup>	2006-11-29	CA BC OEI

**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. Ensure that eyewash stations and safety showers are close to the workstation location. Avoid contact with skin and eyes. Do not breathe vapour. Ensure adequate ventilation.

**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.

**Eye protection:**

Wear eye protection/face protection. Tightly fitting safety goggles or face shield. Ensure that eyewash stations and safety showers are close to the workstation location.

**Skin and body protection:**

Chemical resistant protective clothing. Chemical resistant boots.

**Environmental exposure controls:**

Should not be released into the environment.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<b>Physical state:</b>	liquid
<b>Color:</b>	greenish-white
<b>Odor:</b>	Petroleum distillates
<b>pH:</b>	6 - 9.5
<b>Freezing point:</b>	-20°C
<b>Initial boiling point/range:</b>	Similar to water
<b>Flash point:</b>	> 213.1 °F (closed cup) (Pensky-Martens)
<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>Density:</b>	8.93 lb/gal
<b>Relative Vapor Density:</b>	Similar to water
<b>Bulk Density:</b>	1.072 kg/m <sup>3</sup>
<b>Water solubility (ies):</b>	Limited by viscosity
<b>Partition coefficient:</b>	
<b>n-octanol/water:</b>	Not applicable
<b>Decomposition temp:</b>	No data available
<b>Viscosity: viscosity, kinematic:</b>	> 20.5 mm <sup>2</sup> /s (40°C)
<b>Oxidizing potential:</b>	The substance or mixture is not classified as oxidizing.
<b>Surface tension:</b>	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: No specific hazards.

**Hazardous decomposition products**

**Hazardous decomposition**

Products: Carbon dioxide (CO<sub>2</sub>)  
Carbon monoxide (CO)  
Ammonia  
Nitrogen oxides (NO<sub>x</sub>)  
Sulphur oxides (SO<sub>x</sub>)

Thermal decomposition: Note: No data available.

11. **TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

<b>Acute oral toxicity:</b>	Conclusion: The data is based on the toxicological properties of individual components of the product. Remarks: estimated LD50/Rat/>5,000 mg/kg
<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/>20mg 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 Rabbit/Draize Test/Read across (Analogy) Conclusion: No skin irritation
<b>Serious eye damage /eye irritation</b>	OECD Test Guideline 437/Read across (Analogy) Conclusion: Causes serious eye damage.
<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: 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 vitro:</b>	<b>Distillates (petroleum), hydrotreated light:</b> Conclusion: not mutagenic
<b>Carcinogenicity:</b>	
<b>Carcinogenicity:</b>	<b>Distillates (petroleum), hydrotreated light:</b> Not classified by IARC or NTP.
<b>Reproductive toxicity</b>	
<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**

48 hour Toxicity/Daphnid, 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 1.3 mg/L

96 hour Toxicity/Pimephales promelas/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: 96hr./LC50 29.9 mg/L

**Persistence and degradability:**

Biological degradability: CO2 Evolution TEST/OECD Test Guideline 301B/28d: The polymeric ingredient is not readily biodegradable.

**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

**Mobility in soil**

Water solubility: Limited by viscosity.

Surface tension: Not determined

**Other adverse effects:** No data is available on the product itself.

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. Incineration is recommended.  
EPA Hazardous Waste- NO

**Contaminated packaging:** Dispose of in compliance with local and national regulations.

14. **TRANSPORT INFORMATION**

**Land transport**

**DOT:**

Description of the goods: NA3082, OTHER REGULATED SUBSTANCES, LIQUID, N.O.S.

Proper shipping name: (Ammonium acetate)

Class: 9

Packing Group: 111

Dot-Labels: 9

Reportable quantity: Ammonium acetate

Hazardous Substances/Reportable Quantities-DOT requirements specific to Hazardous Substances only apply if the quantity in one package equals or exceeds the reported quantity. DOT/CFR: Product contains US EPA CERCLA and CWA Hazardous Substances: Ammonium Acetate (CAS# 631-61-8) having a Reportable Quantity (RQ) of 5000 pounds; (refer to SDS section 3 for amount in product to determine if spilled quantity of product exceeds the Reportable Quantity (RQ) triggering EPA Spill Incident Notification).

**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**

This product is regulated as a hazardous material according to the Department of Transportation only in bulk quantities greater than 49,999 lbs. (22,680 KG) per package.

**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

**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required**

While this product does not contain any component CAS numbers directly listed under SARA 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA), it does contain ammonia chemical(s) that may be sources per EPA of aqueous ammonia, a reportable chemical. For our customer's use evaluation for reporting purposes we have listed these source chemical(s) below with their quantities when present at >1%. Please refer to EPA Guidance for Reporting Aqueous Ammonia, EPA 745-R-00-005. Ammonium acetate (631-61-8)

CERCLA hazardous substances. 40 CFR part 302. May be subject to emergency release notification under SARA title III.

**CERCLA Hazardous substance (Reportable Quantities)**

Ammonium acetate (631-61-8)  
5,000 lb

**California Proposition 65**

Acrylamide (79-06-1) < 9 PPM

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 on the Canada Domestic Substances List (DSL) or are not required to be listed on the Canada Domestic Substance 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 NOT included on the Japanese (ENCS) inventory.

All components of this product are NOT included on the Korean (ECL) inventory.

All components of this product are included in the New Zealand Inventory (NZIoC) or are not required to be listed on the New Zealand Inventory (NZIoC).

All components of this product are NOT included on the Philippine (PICCS) inventory.

All components of this product are NOT included on the Taiwan Toxic Chemical Substances Control Act Inventory.

**16. OTHER INFORMATION**  
**NFPA HAZARD RATING (National Fire Protection Association)**

**Health: 3**

**Fire: 1**

**Reactivity: 0**

**HMIS Rating:**

**Health: 3**

**Flammability: 1**

**Reactivity: 0**

**Training advice:** Read the safety data sheet before using this product.

**Sources of key data used to compile the Safety Data Sheet:** Regulations, databases, literature, own tests.

**DATE REVISED: 08/31/2017**

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