



Solve 164

Safety Data Sheet

Date Issued: 04/10/2018

Date Revised: 11/30/2016

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

PRODUCT NAME: **SOLVE 164**

Use of the Substance/mixture: Water treatment chemical

Recommended restrictions on use:

COMPANY: WaterSolve, LLC, 5031 68th St. S.E. Caledonia, MI 49316, USA
For Product information call 616-575-8693. 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

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: **Prevention:** P280 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/physician.

Disposal: P501
Dispose of contents/container as special waste in compliance with local and national regulations.

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% of 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 - 30%
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:

DO NOT induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Call a physician immediately.

Skin contact:

Wash off with plenty of water. Take off contaminated clothing and wash before reuse. If symptoms persist, call a physician.

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, water mist, carbon dioxide (CO₂) 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 full protective clothing and self-contained breathing apparatus. For personal protection see SDS section 8.

Use NIOSH/MSHA approved respiratory protections.

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 rubber boots. For personal protection see Section 8.

Environmental precautions

Try to prevent the material from entering drains or water courses.

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

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 vapours were evolved during the test as evidenced by the enlargement of the 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 or equipment.

Material to avoid:

None known.

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 ³		
		TWA		200 mg/m ³	2006-11-29	CA BC OEL

Appropriate Engineering controls:

Avoid contact with skin and eyes. Wash hands and face before breaks and immediately after handling the product. Do not eat, drink or smoke when using this product. Ensure that eyewash stations and safety showers are close to the workstation location.

Ensure adequate ventilation.

Keep away from tobacco products. Keep away from food and drink. Wash hands before breaks and immediately after handling the product.

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. Where respiratory protection is required based on use and conditions, NIOSH approved respirators should be used.

Hand protection

Glove material: Imperious gloves. Permeability tests are not available for this product.

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:

Wear eye protection/face protection such as 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state:	liquid
Color:	colorless, to light straw
Odour:	Petroleum distillates
pH:	6 -8
Initial boiling point/range:	Similar to water
Flash point:	> 215.6 °F (closed cup) (Pensky-Martens)
Explosive properties	
Lower explosion limit	No data available
Upper explosion limit	No data available
Relative Vapor Density:	Similar to water
Density:	8.95 lb/gal
Bulk Density:	1.077 kg/m ³
Water solubility (ies):	Limited by viscosity
Decomposition temp:	No data available

Viscosity, kinematic: > 20.5 mm²/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: None known

Hazardous decomposition products

Hazardous decomposition

Products: Carbon dioxide (CO₂)
Carbon monoxide
Ammonia
Nitrogen oxides (NO_x)
Sulphur oxides

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 oral toxicity:

Distillates (petroleum), hydrotreated light:
LD₅₀/Rat/>5,000 mg/kg

Acute inhalation toxicity:

Remarks: estimated
LC₅₀/Rat/4 h/>20mg

Acute inhalation toxicity:

Distillates (petroleum), hydrotreated light:
LC₅₀/Rat/4 h/> 5.2 mg/l

Acute dermal toxicity:

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

Acute dermal toxicity:

Distillates (petroleum), hydrotreated light:
LD₅₀/Rabbit/> 2,000 mg/kg

Skin corrosion/irritation:

OECD 439 Test Guideline/Read across (Analogy)
Conclusion: No skin irritation
Rabbit

/Draize Test/Read-across (analogy)

Serious eye damage /eye irritation	OECD 437 Test Guideline/Read-across (Analogy) Conclusion: Causes serious eye damage.
Respiratory or skin sensitization Skin sensitization:	Conclusion: Not sensitizing.
Skin sensitization:	Distillates (petroleum), hydrotreated light: Conclusion: This substance is not classified as a sensitizer.
Germ cell mutagenicity Genotoxicity in vitro:	Conclusion: Based on available data, the classification criteria are not met.
Genotoxicity in vitro:	Distillates (petroleum), hydrotreated light: 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.
Carcinogenicity	Distillates (petroleum), hydrotreated light: Not classified by IARC or NTP.
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.
Aspiration hazard: Aspiration toxicity:	No aspiration toxicity classification.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Aquatic toxicity

48 hour Toxicity/Daphnid, Daphnia magna/EPA 821-R-02-012 Method 2021.0 and Conduction Acute toxicity tests on the test materials with fishes, macroinvertebrates, and amphibians ASTM E-729-96 Test Results: 48hr./LC50 4.8 mg/L

96 hour Toxicity/Pimephales promelas/EPA 821-R-02-012 and Conduction Acute toxicity tests on the test materials with fishes, macroinvertebrates, and amphibians ASTM-E-729-96 Test results: 96hr./LC50 21.3 mg/L

Toxicity to other organisms: No data available.

Persistence and degradability:

Biological degradability: CO2 Evolution TEST/OECD Test Guideline 301B:

Because of the high molecular weight of the polymer diffusion through biological membranes is very small. The polymeric ingredient is not readily biodegradable.

Bioaccumulative potential

Bioaccumulation is unlikely.

Mobility in soil

Water solubility: Limited by viscosity.

Surface tension: Not determined

Other adverse effects

No data available

Additional ecological information: Information given is based on the components and the ecotoxicology of similar products.

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

13. **TRANSPORT INFORMATION**

Land transport

DOT:

Description of the goods: NA 3082, Other regulated substances, liquid, n.o.s. (Ammonium acetate)

Proper shipping name

Class: 9

Packing Group: III

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 reportable quantity. DOT/CFR: Product contains US EPA CERCLA and CWA Hazardous Substance: 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.

14. **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) < 0.01 %

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 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 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 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 NOT included on the New Zealand Inventory of Chemical Substances.

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

All components of this product are included on the Taiwan Toxic Chemical Substances Control Act Inventory.

15. OTHER INFORMATION

NFPA RATING

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: 11/30/2016

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