



## Organic Anionic Emulsion Solve 164

### Material Safety Data Sheet

Date Issued: 01/08/2008

Date Revised: 08/23/2008

#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **SOLVE 164**  
CHEMICAL FAMILY: Anionic polyacrylamide  
Molecular Formula: Mixture  
Molecular Weight: Mixture

COMPANY: **WaterSolve, LLC, 4964 Starr St. SE, Grand Rapids, MI 49546, USA**  
For Product information call **616-575-8693**.

EMERGENCY PHONE: For emergency involving spill, leak, fire, exposure or accident call  
CHEMTREC: 1-800-424-9300. Outside the USA and Canada call 703-527-3887.

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS NO.	%	OSHA (pel)	AGGIH (TLV)
Petroleum distillate	064742-47-8	20-35	500 ppm 1200mg/m <sup>3</sup>	(skin)
Hydrotreated light			165ppm (Supplier)	

#### 3. HAZARDS IDENTIFICATION

##### Emergency Overview

Appearance and odor: White, liquid, petroleum distillate odor

Statement of Hazard: **WARNING! Causes Skin Irritation; May cause Eye Irritation**

##### Potential Health effects

Effects of overexposure:

The estimated acute oral (rat) LD50, acute dermal (rabbit) LD50 and 4-hour inhalation (rat) LC50 values for this material are >5000mg/kg, >2000 mg/kg and >20 mg/L respectively. Direct contact with this material may cause moderate skin and mild eye irritation. Over exposure to vapor may cause respiratory tract irritation and central nervous system depression. Refer to Section 11 for toxicology information on the regulated components of this product.

#### 4. FIRST AID MEASURES

Ingestion:

If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

**Skin contact:**

Remove contaminated clothing and shoes without delay. Wash immediately with plenty of water. Do not reuse contaminated clothing without laundering. Get medical attention if pain or irritation persists after washing or if signs and symptoms of overexposure appear.

**Eye contact:**

Rinse immediately with plenty of water for at least 15 minutes.

**Inhalation:**

Remove to fresh air. If breathing is difficult, give oxygen. Obtain medical advice if there are persistent symptoms.

**5. FIRE FIGHTING MEASURES**

**Suitable Extinguishing Media:**

Use water spray, carbon dioxide or dry chemical.

**Protective Equipment:**

**Firefighters, and others exposed, wear self-contained breathing apparatus. Wear full firefighting protective clothing. See MSDS Section 8 (exposure Controls/Personal Protection)**

**Special Hazards:**

**Keep containers cool by spraying with water if exposed to fire.**

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions:**

Where exposure level is not known, wear NIOSH approved, positive pressure, self-contained respirator. Where exposure level is known, wear NIOSH approved respirator suitable for level of exposure. In addition to the protective clothing/equipment in Section 8, wear impermeable boots.

**Methods For Cleaning Up:**

Products may cause a slip hazard. Spilled material should be absorbed onto an inert material and scooped up. Flush spill area with water. If slipperiness remains apply more dry-sweeping compound.

**7. HANDLING AND STORAGE**

**Handling**

Precautionary Measures: Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

Special Handling Statements: None

**STORAGE**

To avoid product degradation and equipment corrosion, do not use iron, copper or aluminum containers or equipment. Flashpoint determinations on materials of this type are required by certain regulations and scientific standards to be performed using a Pensky-Martens type closed cup test method. This method indicates a flash point greater than 93.3C (200F). Although there was no flashpoint detected below 93.3C (200F) by the Pensky-Martens Closed Tester method, some flammable vapors were evolved during the test as evidenced by the enlargement for the test flame; therefore, caution should be exercised during storage and handling.

Storage Temperature: Store at < 32° C 90° F

Reason: Integrity

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Engineering measures:

Where this material is not used in a closed system, good enclosure and local exhaust ventilation should be provided to control exposure.

### 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.

### Eye protection:

Wear eye/face protection such as chemical splash proof goggles or face shield. Eyewash equipment and safety shower should be provided in areas of potential exposure.

### Skin protection:

Avoid skin contact. Wear impermeable gloves and suitable protective clothing.

### Additional Advice:

Food, beverages, and tobacco products should not be carried, stored, or consumed where this material is in use. Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	white liquid, petroleum distillate odor
Boiling Point:	Similar to water
Melting Point:	Not available
Vapor Pressure:	Not available
Specific Gravity:	1.03 – 1.06
Vapor Density:	Similar to water
% Volatile (By Wt):	56 - 62
pH:	6 – 8
Saturation in Air (% by Vol):	Not applicable
Evaporation Rate:	Not available
Solubility in Water:	Limited by viscosity
Volatile Organic Content:	Not available
Flash point:	>102°C 215°F closed cup
Flammable Limits (% by vol):	Not available
Autoignition temp:	Not available
Decomposition temp:	Not available
Odor Threshold	Not available
Partition coefficient (n-octanol/water)	Not available

## 10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions to avoid:	None known
Polymerization:	Will not occur
Conditions to Avoid:	None known
Incompatible Materials:	No specific incompatibility

Hazardous Decomposition Products: Oxides of nitrogen  
oxides of sulfur (includes sulfur di and tri oxides)  
Carbon dioxide  
Carbon monoxide  
Ammonia

## 11. TOXICOLOGICAL INFORMATION

Toxicological information for the product is found under Section 3.  
Toxicological information on the OSHA regulated components of this product is as follows:

Ethoxylated oleyl amine: toxicological properties have not been fully investigated. It is reported to have an oral (rat) LD50 value of 1500 mg/kg. It is also reported to be severely irritating to eyes and moderately irritating to the skin.

Alcohols (c10-16), ethoxylated toxicological properties have not been fully investigated. Based on similar materials, the acute oral (rat) LD50 is estimated to range from 1600-2500 mg/kg and the acute dermal (rabbit) LD50 value is estimated to be >2000mg/kg. Similar materials produced severe eye irritation and moderate skin irritation in studies with rabbits.

Alcohols C12-14 alcohol ethoxylated toxicological properties have not been fully investigated. The oral LD50 (rat) of this mixture is expected to be consistent with the chemical family of ethoxylated alcohol surfactants and range from 1.6 to 2.5 g/kg. The acute dermal (rabbit) LD50 value is estimated to be >2.0 g/kg. One expected component of this mixture was severely irritating to rabbits eyes (undiluted, Draize score=60). This mixture is expected to be moderately irritating to skin, based on data reported for C9-C11 6EO: (primary irritation index) PII=5.3/8.

California Proposition 65 Warning (applicable in California only)- This product contains (a) chemical(s) known to the State of California to cause cancer .

## 12. ECOLOGICAL INFORMATION LC50

This material is not classified as dangerous for the environment. Acute toxicity tests conducted on the polymer using environmentally representative water gave the following results:

### **Algae Test Results**

Test: Growth Inhibition (OECD 201)  
Duration: 72 h  
Species: Green Algae (*Selenastrum capricornutum*)  
IC50: >100 mg/L

### **Fish Test Results**

Test: Acute toxicity, freshwater (OECD 203)  
Duration: 96 h  
Species: Zebra fish (*Brachydanio rerio*)  
LC50: >100 mg/L

### **Invertebrate Test Results**

Test: Acute Immobilization (OECD 202)  
Duration: 48 h  
Species: Water flea (*Daphnia magna*)  
EC50: >100 mg/L

Degradation:

Test: CO2 Evolution: Modified Sturm (OECD 301B)

The polymeric ingredient is not readily biodegradable. The large polymer size is incompatible with transport across biological membranes and diffusion. The bioconcentration factor is therefore considered to be zero.

**13. DISPOSAL CONSIDERATIONS**

The information on RCRA waste classification and disposal methodology provided below applies only to the product, as applied. If the material has been altered or contaminated, or it has exceeded its recommended shelf life, the guidance may be inapplicable. Hazardous waste classification under federal regulations (40 CFR Part 261 et seq) is dependent upon whether a material is a RCRA "listed hazardous waste" or has any of the four RCRA "hazardous waste characteristics." Refer to 40 CFR Part 261.33 to determine if a given material to be disposed of is a RCRA "listed hazardous waste"; information contained in Section 15 of this MSDS is not intended to indicate if the product is a "listed hazardous waste." RCRA Hazardous Waste Characteristic. There are four characteristics defined in 40 CFR Section 261.21-61.24: Ignitability, Corrosivity, Reactivity, and Toxicity. To determine Ignitability, See Section 5 of this MSDS (flash point). For Corrosivity, see sections 9 and 14 (pH and DOT corrosivity). For Reactivity, see Section 10 (incompatible materials). For Toxicity, see Section 2 (composition). Federal regulations, may also apply to the classification of the material to be disposed. WaterSolve encourages the recycle, recovery and reuse of materials classified as RCRA hazardous wastes to be disposed of by thermal treatment or incineration at EPA approved facilities. WaterSolve has provided the foregoing for information only; the person generating the waste is responsible for determining the waste classification and disposal method.

**14. TRANSPORT INFORMATION**

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

US DOT

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Hazard Class: 9

Packing Group: 111

UN/ID Number: UN3082

Transport Label Required: Miscellaneous

Technical Name: (N.O.S.): Contains ammonium acetate

Hazardous Substances:

<u>Component / CAS No.</u>	<u>Reportable Quantity of Product (lbs)</u>
Ammonium acetate	50000

Comments: Hazardous Substances/Reportable Quantities- DOT requirements specific to Hazardous Substances only apply if the quantity in one package equals or exceeds the product reportable quantity.

TRANSPORT CANADA

Proper Shipping Name: Not applicable/Not regulated

ICAO/IATA

Proper Shipping name: Not applicable/Not regulated

Packing instructions/maximum net quantity per package:

Passenger Aircraft:

Cargo Aircraft:

IMO

Proper shipping name: Not applicable/Not regulated

15.

**REGULATORY INFORMATION**  
**INVENTORY INFORMATION**

USA: All components of this product are included on the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical I inventory.

Canada: All components of this product are included on the Domestic Substances List (DSL) or are not required to be listed on the 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(AICA) or have been assessed by Worksafe Australia.

China: All components of this product are NOT included on the Chinese inventory. The Chinese State Environmental Protection Administration (SEPA) has granted a Polymer Exemption for the non-listed substance to WaterSolve, LLC and the product can be imported into China ONLY under specific conditions.

Japan: All components of this product are NOT included on the Japanese (ENCS) inventory.

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

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

**OTHER ENVIRONMENTAL INFORMATION**

The following components of this product may be subject to reporting requirements pursuant to Section 313 of CERCLA (40 CFR 372), Section 12(b) of TSCA, or may be subject to release reporting requirements (40 CFR 307, 40 CFR 311, etc.) See Section 13 for information on waste classification and waste disposal of this product.

COMPONENT	CAS NO.	%	TPQ(lbs)	RQ(lbs)	S313	TSCA 12B
Ammonium Acetate	631-61-8	2.0-10.0	None	5000	No	No

Product Classification under section 311 of SARA
Acute (Y)

16.

**OTHER INFORMATION**

**NFPA HAZARD RATING (National Fire Protection Association)**

Health 2- Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

Fire 1 – Materials that must be preheated before ignition can occur.

Reactivity 0 –Materials that in themselves are normally stable, even under fire exposure conditions.

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