Solve 145

Safety Data Sheet

Date Issued: 06/07/2016
Date Revised: 03/24/2015

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **SOLVE 145**
Use of substance/mixture: Flocculating agent
COMPANY: WaterSolve, LLC, 5031 68th Street 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 INDENTIFICATION

Classification of the substance or mixture
Skin corrosion/irritation; Category 2; Causes skin irritation;

Hazard Pictograms:

Signal word: **WARNING**

Hazard statements: H315, Causes skin Irritation

Precautionary statements:

Prevention:
P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye and face protection.
Response:
P302+P352: IF ON SKIN: Was with soap and water
P332+P313: If skin irritation occurs: Get medical advice/attention
P362: Take off contaminated clothing
Disposal:
P501: Dispose of content/container as special waste in compliance with local and national regulations

Other hazards which do not result in classification
Advice: Contaminated surfaces will be extremely slippery.
Eyes: May cause slight irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances/Mixtures

Chemical nature: Cationic polyacrylamide, emulsion

Hazardous components

COMPONENT/CAS No.	CAS	Concentration %
Petroleum distillate Hydrotreated light	64742-47-8	20-24%
Alcohols (C12-16), ethoxylated	68551-12-2	0-2%
Alcohols (C10-16), ethoxylated	68002-97-1	0-2%
Alcohols (C12-14), ethoxylated	68439-50-9	0-2%
		0-2%
Alcohols (C13-15), branched and linear, ethoxylated	157627-88-6	0-2%
Citric Acid	77-92-9	2-3%

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: If swallowed, call a physician immediately. Rinse mouth with water. Do NOT induce vomiting. 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 of irritation persists after washing or if signs and symptoms of overexposure appear.

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 or dry chemical.

Special hazards arising from the substance or mixture

Burning may produce toxic and irritant gases.

Special protective actions for fire-fighters:

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

Further information

In the event of fire, cool tanks with water spray, if safe to do. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

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

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 impervious boots.

Environmental precautions

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

Methods and materials for Cleaning Up and containment:

Hazard of slipping on spilt product. Soak up with inert absorbent material. Shovel into suitable container for disposal. Flush spill area with water. Use detergent if needed. If slipperiness remains apply more dry-sweeping compound.

7. HANDLING AND STORAGE

Precautionary 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 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.

Materials for packaging:

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

Materials to avoid:

Strong oxidizing agents

Storage Temperature: Store at 39.2-- 89.6°F

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	TWA		200 mg/m^3	2006-11-29	CA BC OEL
				197 ppm 1,200 mg/m^3		

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 vapor. Ensure that eyewash stations and safety showers are close to the workstation location. Where this material is not used in a closed system, good enclosure and local exhaust ventilation should be provided to control exposure.

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.

Eye Protection: Wear eye/face protection such as tight fitting chemical splash proof goggles. Eyewash equipment and safety shower should be provided in areas of potential exposure.

Hand/Skin and body Protection:
Wear suitable protective equipment. Avoid skin contact. Wear impermeable gloves and suitable protective clothing. 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.

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.

Environmental exposure controls
No data available

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	liquid, emulsion
Appearance and Odor:	opaque liquid; slight hydrocarbon odor
Initial Boiling Point/Range:	212°F
Melting Point:	Not determined
Vapor Pressure :	Similar to water
Specific Gravity:	~1.02
Relative Vapor Density:	Similar to water
pH:	3-6
Saturation in Air (% by Vol):	Not applicable
Evaporation Rate:	no available
Solubility in Water:	Limited by viscosity
Volatile Organic Content:	25% (g/g)
Flash point:	>199.4°F closed cup
Explosive properties Upper/Lower:	Not available
Partition coefficient:	
n-octanol/water:	Not applicable
Decomposition temp:	Not available
Odor Threshold	Not available
Viscosity, Kinematic	> 20.5 mm^2/s (104°F)
Oxidizing potential:	The substance or mixture is not classified as oxidizing.
Surface tension:	No data available
Density	ca. 1.0 g/cm^3

10. STABILITY AND REACTIVITY

Reactivity	
Chemical Stability:	Stable
Possibility of hazardous reactions:	Hazardous polymerization does not occur.
Conditions to Avoid:	None known
Incompatible materials:	strong oxidizing agents
Hazardous decomposition	
Products:	Carbon dioxide, ammonia, Hydrogen chloride, nitrogen oxides
Thermal decomposition:	No data available

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute oral toxicity	Conclusion: The acute toxicological results displayed may not be the Result of actual testing of this material but based on similar tested material. LD50/Rat/ >5,000 mg/kg Remarks: Estimated
Acute oral toxicity	**Distillates (petroleum) hydrotreated light:** LD50/Rat/ >5,000 mg/kg
Acute inhalation toxicity	LC50/Rat/4hr/>/20 mg/l Remarks: estimated
Acute inhalation toxicity	**Distillates (petroleum) hydrotreated light:** LC50/Rat/4hr/ >5.2 mg/l
Acute dermal toxicity	LD50/Rabbit/ >2,000 mg/kg/ Remarks: estimated
Acute dermal toxicity	**Distillates (petroleum) hydrotreated light:** LD50/Rabbit/>/2,000 mg/kg
Skin corrosion/irritation	Remark: Information given is based on data obtained from similar substances Conclusion: Causes skin irritation
Serious eye damage/ eye irritation	Remarks: The toxicological data has been taken form products of Similar composition Conclusion: No eye irritation
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	
Carcinogenicity	Based on available data, the classification criteria are not met**.** **Distillates (petroleum), hydrotreated light:** Not classified by IARC or NTP.
Reproductive toxicity	

12 ECOLOGICAL INFORMATION LC 50

Aquatic toxicity

LC50/96 h/Branchydanio rerio (zebra fish)/Acute toxicity/OECD Test Guideline 203: > 1 - 10 mg/l
Remarks: fresh water
EC50/48 h/Daphnia magna (Water flea)/Immobilization/OECD Test Guideline 202: > 10 - 100 mg/l
/Green algae (Selenastrum capricornutum)/Growth inhibition/OECD Test Guideline 201:
Remarks: Due to the cationicity of the polymer, test is not appropriate.

Toxicity to other organisms

No data available

Persistence and biodegradability

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

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: No data available

Other adverse effects

Additional ecological information: Ecotoxicological information is based on a structurally or compositionally similar product.

13. DISPOSAL CONSIDERATIONS

Product: Must be disposed of as hazardous waste. 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. Recycling, recovery and reuse of materials is recommended if permitted by regulations. 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.
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 None known.

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 % 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
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Notification status
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).

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 ion the Japanese Inventory.

Korea: All components of this product are included on the Korean (ECL) inventory or are not required to be listed on the Korean inventory

Philippines: All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine inventory.

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.

HMIS Rating: Health: 2
Fire: 1
Reactivity: 0

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OTHER INFORMATION

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