



Solve 1825

Safety Data Sheet

Date Issued: 04/12/2016

Date Revised: 06/03/2015

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

PRODUCT NAME: **SOLVE 1825**

Use of the Substance/mixture: Flocculating agent.

Recommended restrictions on use: --

COMPANY: WaterSolve, LLC, 5031 68th St. S.E. Caledonia, MI 49316, USA

For Product information call 616-575-8693.

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

Skin corrosion/irritation; Category 2; Causes skin irritation.

GHS-Labeling

Hazard pictogram:



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 protection/ face protection.

Response:

P302 + P352

IF ON SKIN: Wash with plenty of soap and water.

P332 + P313

If skin irritation occurs: Get medical advice/attention.

P362

Take off contaminated clothing.

Disposal:

P501

Dispose of contents/container in accordance with local regulations.

Other hazards which do not result in classification

Advice: Contaminated surfaces will be extremely slippery.

Eyes: May cause slight irritation.

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

CHEMICAL NAME	CAS-NO.	CONCENTRATION %
Distillates (petroleum), hydrotreated light	64742-47-8	20 - 25 %
Citric acid	77-92-9	2 - 3.0%
Alcohols, C10-16, ethoxylated	68002-97-1	0 – 3%
Alcohols, C12-14, ethoxylated	68439-50-9	0 – 3%
Alcohols, C12-16, ethoxylated	68551-12-2	0 – 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

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.

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 (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 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, see 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 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.

Materials to avoid:

Strong oxidizing agents.

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	TWA		200 mg/m ³	2006-11-29	CA BC OEL
		TWA		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 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 time and of special workplace conditions (mechanical strain, duration of contact).

Eye protection:

Tightly fitting safety goggles.

Environmental exposure controls: No data available.

9. **PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties

Physical state: liquid
Color: off-white
Odor: hydrocarbon-like
pH: 3 - 4 aqueous solution
Initial Boiling Point/Range: Boiling point/boiling range
ca. 347°F
Oil Phase
Boiling point/boiling range
ca. 212°F
Aqueous phase
Flash point: >212°F (closed cup) (Pensky-Martens)
Evaporation properties:
Lower explosion limit: No data available
Upper explosion limit: No data available
Vapor Pressure: Similar to water
Density: Similar to water
Solubility in Water: Limited by viscosity
Partition coefficient:
n-octanol/water: No data available
Decomposition temperature: No data available
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 dioxides (CO_x), Ammonia, nitrogen oxides (NO_x), hydrogen chloride (HCl)

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 results of actual testing of this material but based on a similar tested material.

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

Acute inhalation toxicity	LC50/rat/4 h/ >20 mg/l Remarks: estimated
Acute dermal toxicity	LD50/Rabbit/>2,000 mg/kg Remarks: estimated
Skin corrosion/irritation	Remarks: The toxicological data has been taken from products of similar composition. Conclusion: Irritating to skin.
Serious eye damage /eye irritation	Remarks: The toxicological data has been taken from products of similar composition. Conclusion: No eye irritation.
Respiratory or skin sensitization	
Mucous membranes	Conclusion: No data available
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

Remarks: Ecotoxicological information provided is based on a structurally or compositionally similar product.

LC50/96 h/Branchydanio rerio (zebra fish)/Acute toxicity/OECD Test Guideline 203: > 1- 10 mg/l

Remarks: Fresh water

LC50/96 h/Pimephales promelas (fathead minnow)/Acute aquatic toxicity/US EPA TSCA Test Guidelines: 6.6 – 8.8 mg/l

Remarks: Actual product testing

EC50/48 h/Daphnia magna (water flea)/Immobilization/OECD Test Guideline 202: >10 – 100 mg/l

LC50/48 h/Daphnia magna (water flea)/Acute toxicity/EPA: 3.3 – 5.5 mg/l

Remarks: Actual product testing

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: Not applicable.

Mobility in soil

Water solubility: Limited by viscosity.
Surface tension: Not determined

Other adverse effects

No data available

Additional ecological information: Low toxicity for 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.

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

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 %

Remarks: This product contains a chemical or chemicals known to the State of California to cause cancer, birth defects or other reproductive 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 in 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 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 (AICA) or are not required to be listed on the Australian Inventory of Chemical Substances (AICS).

All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese Inventory.

All components of this product are included on the Japanese (ENCS) inventory or are not required to be listed on the Japanese (ENCS) Inventory.

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

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

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

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

16. OTHER INFORMATION

NFPA RATING

Health: 2

Flammability: 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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DATE REVISED: 06/03/2015

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