



Solve 1823

Safety Data Sheet

Date Issued: 06/28/2021

Date Revised: 06/04/2020

1. IDENTIFICATION

PRODUCT NAME: SOLVE 1823

RECOMMENDED USE OF THE CHEMICAL AND RESTRICTIONS ON USE

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

GHS Classification

This product is not considered hazardous by the 2021 OSHA Hazard Communication Standard (29 CFR 1910.1200).

GHS-Labeling

Product is not hazardous under US GHS.

Hazards not otherwise classified (HNOC) or not covered/classified by GHS

Advice: Contaminated surfaces will be extremely slippery.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances/Mixtures

Mixture

Chemical nature: Cationic polyacrylamide, emulsion.

No ingredients are hazardous according to OSHA criteria.

Further information

Hazardous components listed do not result in product classification.

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 poison control center or doctor immediately. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person.

Skin contact

Remove contaminated clothing and shoes. Wash off immediately with plenty of water. Wash contaminated clothing before re-use. If a person feels unwell or symptoms of skin irritation appear, consult 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.

Symptoms: No information available

Hazards: No information available

Indication of immediate medical attention and special treatment needed, if necessary

Treatment: Symptomatic treatment

5. FIRE FIGHTING MEASURES**Suitable Extinguishing Media**

water spray, carbon dioxide (CO₂), or dry chemical.

Unsuitable extinguishing media

None

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. Use NIOSH/MSHA approved respiratory protection. For personal protection see Section 8.

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. For personal protection refer to Section 8.

Environmental precautions

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

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 skin. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

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

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:

Strong oxidizing agents.

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

Storage stability:

Storage temperature: 40.1 – 90.0°F

Other data: Reason: integrity

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Components	CAS-No.	Value	From of exposure	Control parameters	Update	Basis
Distillates (petroleum), hydrotreated light	64742-47-8		Vapour	197 ppm 1,200 mg/m ³		

Appropriate Engineering controls:

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin and eyes. Do not breathe vapours, aerosols. Ensure adequate ventilation. Wash hands before breaks and immediately after handling the product. Ensure that eyewash stations and safety showers are close to workstation location.

Ensure adequate ventilation.

Individual protection measures, such as personal protective equipment

Industrial Hygiene

Wash hands before breaks and immediately after handling the product. Wash hands before eating, drinking, or smoking. Keep away from food and drink. Keep away from tobacco products.

Respiratory protection:

Where exposures are below the established exposure limit, no respiratory protection is required. Where exposures exceed the established exposure limits, use respiratory protection recommended for the material and level of exposure.

Hand protection

Glove material; Chemical resistant 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. Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough.

Skin and body protection:

Avoid skin contact. Protective clothing.

Eye protection:

Tightly fitting safety goggles. Ensure that eyewash stations and safety shower are close to the workstation location.

Environmental exposure controls

No data available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state:	liquid
Form:	viscous
Color:	opaque, to, greenish, milky, white
Odor:	hydrocarbon-like
Odor Threshold:	No data available
pH:	6 – 8 (as aqueous solution)
Freezing/Melting point:	No data available
Initial Boiling Point/Range:	212°F
Flash point:	>201°F closed cup (Pensky-Martens)
Evaporation rate:	< 1 (n-butyl acetate=1)
Flammability (solid, gas):	Not classified as a flammability hazard
Explosive properties:	
Lower explosion limit:	No data available
Upper explosion limit:	No data available
Oxidizing properties	The substance or mixture is not classified as oxidizing.
Vapor Pressure:	similar to water
Relative vapour density:	similar to water
Density:	approx. 1.04 g/cm ³
Relative density:	No data available
Solubility in Water:	Limited by viscosity
Partition coefficient:	
n-octanol/water:	Not applicable
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	
Dynamic	No data available
Kinematic	> 20.5 mm ² /s (104°F)
Oxidizing potential:	The substance or mixture is not classified as oxidizing.
Surface tension:	Not determined

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

Hazardous polymerization does not occur.

Conditions to avoid

Stable under recommended storage conditions.

Incompatible materials

Strong oxidizing agents.

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

Hazardous decomposition products

Carbon oxides (COx), Ammonia, oxides of nitrogen, hydrogen chloride (HCl)

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. 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/4 h/>20 mg/l Remarks: estimated
Acute inhalation toxicity	Distillates (petroleum), hydrotreated light: LC50/Rat/4h/ >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	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	
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:

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.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Aquatic toxicity

LC50/96h/ Pimephales promelas (Fathead minnow)/OECD Test Guideline 203: 2.65 mg/l

Remarks: similar product

LC50/48h/ Pimephales promelas (Fathead minnow)/static test/EPA Whole Effluent Toxicity Method 600/4-90/027F: 8.36 – 9.14 mg/l

Remarks: similar product

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

Remarks: similar product

LC50/48h/ Ceriodaphnia dubia (Water flea)/OECD Test Guideline 202: 1.92 mg/l

Remarks: Similar product

LC50/48h/ Ceriodaphnia dubia (Water flea)/static test/EPA Whole Effluent Toxicity Method 600/4-90/027F: 0.81 – 1.32 mg/l

Remarks: similar product

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

Remarks: Similar product

Toxicity to other organisms

No data available

Persistence and degradability

Biological degradability:

CO2 Evolution Test/OECD Test Guideline 301B:

Not readily biodegradable. Because of the high molecular weight of the polymer diffusion through biological membranes is very small.

Biochemical Oxygen Demand (BOD): 627 mg/l

Chemical Oxygen Demand (COD): 3,310 mg/l

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

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.

Contaminated packaging

Packages that cannot be cleaned must be disposed of the same way as the unused product.

14. TRANSPORT INFORMATION

Land transport

Not classified as dangerous in the meaning of transport regulations.

Store between 5-30°C

Protect from frost.

Keep away from direct sunlight.

Sea Transport

Not classified as dangerous in the meaning of transport regulations.

Store between 5-30°C

Protect from frost.

Keep away from direct sunlight.

Air transport

Not classified as dangerous in the meaning of transport regulations.

Store between 5-30°C

Protect from frost.

Keep away from direct sunlight.

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:

No SARA Hazards

SARA 302 Extremely Hazardous Substances

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

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.

California Proposition 65

WARNING: This product contains a chemical(s) known to the State of California to cause cancer, birth defects of other reproductive harm. For more information go to www.P65warning.ca.gov.

Acrylamide (79-06-1) < 0.1 %
Ethylene oxide (75-21-8) < 0.3 PPM

Notification status:

USA: 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.

Canada: 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).

European Union: 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 have NOT yet been included in the Australian Inventory of Chemical Substances (AICS) or assess by Worksafe Australia.

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

South 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.

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

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

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

16. **OTHER INFORMATION**

NFPA RATING

Health: 1
Fire: 1
Reactivity: 0

HMIS Rating:

Health: 2
Flammability: 1
Reactivity: 0

Training advice

Read the Safety Data Sheet before using the product.

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