



Solve 9226

Safety Data Sheet

Date Issued: 08/30/2018

Date Revised: 06/25/2018

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Solve 9226
Company Identification: WaterSolve, LLC
5031 68th Street
Caledonia, Michigan 49316, USA www.gowatersolve.com

For Product Information: 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)

Recommended use of the chemical and restrictions on use

Use of Substance/Mixture: Flocculating agent

2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Eye irritation: Category 2A

GHS Label elements

Hazard pictograms:



Signal Word: WARNING!

Hazard Statements: H319 Causes serious eye irritation.

Precautionary Statements:

PREVENTION: P264 Wash skin thoroughly after handling.
P280 Wear eye protection/face protection.

RESPONSE: P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 +P313 If eye irritation persists: Get medical advice/attention.

Other Hazards: none known

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Chemical nature: Static accumulator

Hazardous Components

| Chemical Name | CAS# | Classification | CONCENTRATION % |
|-----------------------|--------------|---|-----------------|
| ALIPHATIC HYDROCARBON | Trade Secret | Flam. Liq. 4; H227 Asp. Tox. 1; H304 | >=20 - < 30 |
| ALCOHOL ALKOXYLATES | Trade Secret | Acute Tox. 4; H302 Eye Dam. 1; H318 | >= 1.5 - < 3 |

4. FIRST AID MEASURES

General Advice: Move out of dangerous area. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended.

If swallowed: Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

In case of Skin Contact: First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.

In case of Eye Contact: Immediately flush eyes with plenty of water. Remove contact lenses. Protect unharmed eye.

If Inhaled: If breathed in, move person into fresh air. If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed:

- Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material.
- This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity when deciding whether to induce vomiting.
- Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), lung irritation, confusion, irregular heartbeat, convulsions. Causes skin irritations.

Notes to physician: No hazards which require special first aid measures.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray, foam, carbon dioxide (CO₂) or dry chemical.

Unsuitable extinguishing media: High volume water jet.

Specific hazards during firefighting: Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products: Carbon dioxide (CO₂), carbon monoxide, Hydrocarbons, Nitrogen oxides (NO_x)

Specific extinguishing methods: Product is compatible with standard fire-fighting agents.

Further information: Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special Protective Equipment for fire-fighters: In the event of fire, wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Comply with all applicable federal, state, and local regulations.

Environmental precautions:

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up:

Soak up with inert absorbent material, (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Advice on protection against fire and explosion: Normal measures for preventive fire protection.

Advice on safe handling: Do not breathe vapours/dust. Do not smoke. Container hazardous when emptied. Avoid contact with skin and eyes. Smoking, eating, and drinking should be prohibited in the application area. For personal protection see Section 8. Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Electrical installations/working materials must comply with the technological safety standards.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

| COMPONENTS | CAS-No. | Value type (form of exposure) | Control parameters/permissible concentration | Basis |
|-----------------------|--------------|-------------------------------|--|-----------|
| ALIPHATIC HYDROCARBON | Trade Secret | TWA (mist) | 5 mg/m ³ | OSHA Z-1 |
| | | TWA | 200 mg/m ³ (total hydrocarbon vapor) | ACGIH |
| | | TWA (mist) | 5 mg/m ³ | OSHA P0 |
| | | TWA (mist) | 5 mg/m ³ | NIOSH REL |
| | | ST (mist) | 10 mg/m ³ | NIOSH REL |

Engineering measures:

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment:

Hand protection:

The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection

Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

Skin and body protection

Wear as appropriate: impervious clothing, safety shoes. Choose body protections according to the amount and concentration of the dangerous substance at the work place. Wear resistant gloves (consult your safety equipment supplier).

Hygiene measures: Wash hands before breaks and at the end of the workday. When using do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| Appearance: | viscous |
| Color: | White |
| Odor: | mild, hydrocarbon-like |
| Odour threshold: | No data available |
| pH: | ca. 3.7, Concentration: 10g/l |
| Melting point/freezing point: | < -15 °C |
| Boiling point/boiling range: | 103°C |
| Flash point: | >100 °C Method: Cleveland open cup |
| Evaporation Rate: | < 1 |
| Flammability (solid, gas): | No data available |
| Self-ignition: | No data available |
| Upper Explosion limits: | No data available |
| Lower Explosion limits: | No data available |
| Vapor Pressure: | 23.3 hPa (20°C) Method: ASTM D 2879-86 |
| Relative vapor density: | No data available |
| Relative density: | 1.03 -1.04 |
| Density: | Approximate 1.03 g/cm ³ |
| Solubility in Water: | Soluble |
| Solubility in other solvents: | No data available |
| Partition coefficient (n-octanol/water): | No data available |
| Decomposition temperature: | No data available |
| Viscosity, dynamic | >7 mPa.s (40°C) |
| Viscosity, kinematic | > 20.5 mm ² /s (40°C) Based on a similar product formulation. |
| Oxidizing properties: | No data available |

10. STABILITY AND REACTIVITY

| | |
|--|--|
| Reactivity: | No decomposition if stored and applied as directed. |
| Chemical Stability: | Stable under recommended storage conditions. |
| Possibility of Hazardous reactions: | Product will not undergo hazardous polymerization. |
| Conditions to avoid: | Heat, flames and sparks. |
| Incompatible Materials: | Strong oxidizing agents, strong reducing agents. |
| Hazardous decomposition products: | Carbon dioxide (CO ₂), carbon monoxide, hydrocarbons, nitrogen oxides (NO _x) |

11. **TOXICOLOGICAL INFORMATION**

Acute Toxicity:

Not classified based on available information.

Product:

Acute Oral toxicity:

Acute toxicity estimate: >5,000 mg/kg
Method: Calculation method

Components:

ALIPHATIC HYDROCARBON:

Acute oral Toxicity:

LD 50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity:

LD 50 (Rat, male and female): > 5.28 mg/l

Exposure time: 4 hr.

Test atmosphere: vapour

Method: OECD Test Guideline 403

Assessment: No adverse effect has been observed in acute inhalation toxicity tests.

Acute dermal toxicity:

LD 50 (Rabbit): > 2,000 mg/kg

Assessment: No adverse effect has been observed in acute dermal toxicity tests.

ALCOHOL ALKOXYLATES:

Acute oral toxicity:

LD 50 (Rat): 1,380 mg/kg

Skin Corrosion/Irritation:

Not classified based on available information.

Product:

Result:

Possibly irritating to skin.

Result:

Repeated exposure may cause skin dryness or cracking.

Remarks:

May cause skin irritation in susceptible persons.

Components:

ALIPHATIC HYDROCARBON:

Result: Mildly irritating to skin.

ALCOHOLS ALKOXYLATES:

Result: Not irritating to skin.

Serious eye damage/eye irritation:

Causes serious eye irritation.

Product:

Remarks:

Vapours may cause irritation to the eyes, respiratory system and the skin. Causes serious eye irritation.

Components:

ALIPHATIC HYDROCARBON:

Result: Mildly irritating to eyes.

ALCOHOLS ALKOXYLATES:

Result: Risk of serious damage to eyes.

Respiratory or skin sensitisation:

Skin sensitization:

Not classified based on available information

Respiratory sensitization:

Not classified based on available information

Germ cell mutagenicity:

Not classified based on available information

Carcinogenicity:

Not classified based on available information

IARC No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity: Not classified based on available information

STOT – single exposure: Not classified based on available information

STOT – repeated exposure: Not classified based on available information

Aspiration toxicity Not classified based on available information.

Components:

ALIPHATIC HYDROCARBON: The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Further information

Product:

Remarks: No data available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish: LC 50 (Pimephales promelas (fathead minnow)): 11 mg/l
Exposure time: 96 hr.

LC 50 (Pimephales promelas (fathead minnow)): 35.9 mg/l
Exposure time: 96 hr.
Remarks: test conducted using environmentally representative water.

**Toxicity of daphnia and other
Aquatic invertebrates:**

LC 50 (Water flea (Ceriodaphnia dubia)): 1.75 mg/l
Exposure time: 48 hr.

EC50 (Ceriodaphnia dubia (water flea)): 1.08 mg/l
Exposure time: 48 hr.
Remarks: Test conducted using environmentally representative water.

Ecotoxicology Assessment

Acute aquatic toxicity: Acute aquatic toxicity Category 2; Toxic to aquatic life.

Chronic aquatic toxicity: Not classified based on available information.

Components:

ALIPHATIC HYDROCARBON:

Ecotoxicology Assessment

Acute aquatic toxicity: No toxicity at the limit of solubility

Chronic aquatic toxicity: No toxicity at the limit of solubility

ALCOHOL ALKOXYLATES:

Toxicity to fish: LC 50 (Fish): >1 – 10 mg/l
Exposure time: 96 hr.
Test Method: static test

Toxicity to daphnia and other
Aquatic invertebrates: EC 50 (Daphnia (Water flea)): >1 - 10 mg/l
Exposure time: 48hr.
Test Method: static test

Toxicity to daphnia and other
Aquatic invertebrates (chronic toxicity) EC50 (Daphnia (Water flea)): 0.17 mg/l
Exposure time: 21 d

Ecotoxicology Assessment

Chronic aquatic toxicity: Harmful to aquatic life with long lasting effects.

Persistence and degradability

Product:

Biochemical Oxygen Demand (BOD): Biochemical oxygen demand
383,000 mg/l

Chemical Oxygen Demand (COD): 1,930,000 mg/l
Method: Chemical oxygen demand

Components:

ALCOHOL ALKOXYLATES:

Biodegradability: Result: Readily biodegradable.

Bioaccumulative potential No data available

Mobility in soil No data available

Other adverse effects:

Product:

Additional ecological information: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues: The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.

Dispose of in accordance with all applicable local, state and federal regulations.

Contaminated packaging: Empty remaining contents. Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

14. **TRANSPORT INFORMATION**

International Transport Regulations

| ID NUMBER | PROPER SHIPPING NAME | *HAZARD CLASS | SUBSIDIARY HAZARDS | PACKING GROUP | MARINE POLLUTANT /LTD. QTY. |
|-----------|----------------------|---------------|--------------------|---------------|-----------------------------|
|-----------|----------------------|---------------|--------------------|---------------|-----------------------------|

Mexican Regulation for the Land Transport of Hazardous Materials and Wastes

| | | | | | |
|---------|---|---|--|-----|--|
| UN 3082 | Environmentally hazardous substance, liquid, n.o.s. | 9 | | III | |
|---------|---|---|--|-----|--|

International Air Transport Association – Passenger

| | | | | | |
|--|---------------------|--|--|--|--|
| | Not dangerous goods | | | | |
|--|---------------------|--|--|--|--|

International Air Transport Association – Cargo

| | | | | | |
|--|---------------------|--|--|--|--|
| | Not dangerous goods | | | | |
|--|---------------------|--|--|--|--|

International Maritime Dangerous Goods

| | | | | | |
|--|---------------------|--|--|--|--|
| | Not dangerous goods | | | | |
|--|---------------------|--|--|--|--|

Transport Canada – Rail

| | | | | | |
|--|---------------------|--|--|--|--|
| | Not dangerous goods | | | | |
|--|---------------------|--|--|--|--|

Transport Canada – Road

| | | | | | |
|--|---------------------|--|--|--|--|
| | Not dangerous goods | | | | |
|--|---------------------|--|--|--|--|

U.S. DOT – Inland Waterways

| | | | | | |
|--|---------------------|--|--|--|--|
| | Not dangerous goods | | | | |
|--|---------------------|--|--|--|--|

U.S. DOT – Rail

| | | | | | |
|--|---------------------|--|--|--|--|
| | Not dangerous goods | | | | |
|--|---------------------|--|--|--|--|

U.S. DOT – Road

| | | | | | |
|--|---------------------|--|--|--|--|
| | Not dangerous goods | | | | |
|--|---------------------|--|--|--|--|

*ORM = ORM-D, CBL=COMBUSTIBLE LIQUID

| | | |
|------------------|--|----|
| Marine pollutant | | no |
|------------------|--|----|

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for description that are specific to the shipment.

15. **REGULATORY INFORMATION**

EPCRA – Emergency Planning and Community Right-to-Know Act

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards: Serious eye damage or eye irritation.

SARA 313: 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 Prop. 65

Proposition 65 warnings are not required for this product based on the results of a risk assessment.

The components of this product are reported in the following inventories:

| | |
|------------|---|
| DSL: | This product contains one or more components that are not on the Canadian DSL and have annual quantity limits. |
| AICS: | On the inventory, or in compliance with the inventory. |
| ENCS: | Not in compliance with the inventory. |
| KECI: | On the inventory, or in compliance with the inventory. |
| PICCS: | On the inventory, or in compliance with the inventory. |
| IECSC: | On the inventory, or in compliance with the inventory. |
| TCSI: | Not in compliance with the inventory. |
| TCSA: | On TSCA Inventory |
| TSCA list: | No substances are subject to a Significant New Use Rule. No substances are subject to TSCA 12(b) export notification requirements. |

16. **OTHER INFORMATION**

Full text of H-Statements referred to under Sections 2 and 3.

| | |
|------|---|
| H227 | Combustible liquid. |
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H318 | Causes serious eye damage. |

DATE REVISED: 06/25/2018

Full text of other abbreviations:

| | |
|------------|--------------------|
| Acute Tox. | Acute toxicity |
| Asp. Tox. | Aspiration hazard |
| Eye Dam. | Serious eye damage |
| Flam. Liq. | Flammable liquids |

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
STEL: Short-term exposure limit
SDS Safety Data Sheet
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
(WAF): water-accommodated fraction