



## Solve 9325

# Safety Data Sheet

**Date Issued:** 10/22/2021

**Date Revised:** 04/15/2021

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** Solve 9325  
Flocculant

**Company Identification:** WaterSolve, LLC  
5031 68th Street  
Caledonia, Michigan 49316, USA [www.gowatersolve.com](http://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

### 2. HAZARDS IDENTIFICATION

**GHS Classification in accordance with the OSHA Hazard Communications Standard (29 CFR 1910.1200)**

**Eye irritation:** Category 2A

#### GHS LABEL ELEMENT

**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

#### Components

Chemical Name	CAS#	Classification	CONCENTRATION %
ALIPHATIC HYDROCARBON	Trade Secret	Flam. Liq. 4; H227 Asp. Tox. 1; H304	>= 20 - < 30
ALKOXYLATED ALCOHOL	Trade Secret	Eye damage: 1; H318	>= 1.5 - < 5
ALKANOL POLYALKOXYLATE	Trade Secret	Acute tox. 4; H302 Eye Irrit. 2A; H319	>= 1 - < 1.5

Actual concentration is withheld as a trade secret

### 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 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.

**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 swallowed:** Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. 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 serious eye irritation.

**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 (CO<sub>2</sub>), or dry chemical.

**Unsuitable extinguishing media:** High volume water jet.

**Specific hazards during firefighting:** If product is heated above its flash point it will produce vapors sufficient to support combustion. Vapors are heavier than air and may travel along the ground and be ignited by heat, pilot lights, other flames and ignition sources at locations near the point of release.  
Do not allow run-off from fire fighting to enter drains or water courses.

**Hazardous combustion products:** Carbon dioxide (CO<sub>2</sub>), carbon monoxide, Hydrocarbons, Nitrogen oxides (NO<sub>x</sub>), toxic fumes.

**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 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 empty. 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.

**Further information on storage stability:** No decomposition if stored and applied as directed.

## 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 <sup>3</sup>	OSHA Z-1
		TWA	200 mg/m <sup>3</sup> (total hydrocarbon vapor)	ACGIH
		TWA (Mist)	5 mg/m <sup>3</sup>	OSHA P0
		TWA (Mist)	5 mg/m <sup>3</sup>	NIOSH REL
		ST (Mist)	10 mg/m <sup>3</sup>	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:

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

#### 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

Physical state:	liquid
Color:	white, milky
Odor:	mild, hydrocarbon-like
Odour threshold:	No data available
pH:	No data available
Melting point/freezing point:	No data available
Boiling Point boiling range:	No data available
Flash point:	> 199.9 °F / > 93.3 °C
Evaporation Rate:	< 1
Flammability (solid, gas):	No data available
Self-ignition:	No data available
Upper Explosion limit:	No data available
Lower Explosion limit:	No data available
Vapor Pressure:	22.7 hPa (68 °F / 20 °C) Method: ASTM D 2879-86
Relative vapor density:	No data available
Relative density:	ca. 1
Density:	ca. 1.05 g/cm <sup>3</sup>
Solubility in Water:	No data available
Solubility in other solvents:	No data available
Partition coefficient (n-octanol/water):	No data available
Thermal decomposition:	No data available
Viscosity, dynamic	No data available

Viscosity, kinematic > 21 mm<sup>2</sup>/s (104 °F / 40 °C)  
Based on a similar product formulation.  
Oxidizing properties: No data available

## 10. STABILITY AND REACTIVITY

**Reactivity:** No decompositions 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:** Protect from frost, heat, flames and sparks.

**Incompatible Materials:** Acids, strong oxidizing agents, strong reducing agents, halogens.

**Hazardous decomposition products:** Carbon dioxide (CO<sub>2</sub>), carbon monoxide, nitrogen oxides (NO<sub>x</sub>), hydrocarbons

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity:**  
Not classified based on available information.

### Components:

#### **ALIPHATIC HYDROCARBON:**

**Acute oral Toxicity:** LD50 (Rat): > 5,000 mg/kg

**Acute inhalation toxicity:** LC 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:** LD50 (Rabbit): > 2,000 mg/kg  
Assessment: No adverse effect has been observed in acute dermal toxicity tests.

#### **ALKOXYLATED ALCOHOL:**

**Acute oral toxicity:** LD50 (Rat): >2,000 mg/kg

**Acute dermal toxicity:** LD50 (Rabbit): >2,000 mg/kg

#### **ALKANOL POLYALKOXYLATE:**

**Acute oral Toxicity:** LD50 (Rat): 1,940 mg/kg

**Acute dermal toxicity:** LD50 (Rat): > 2,000 mg/kg

**Skin corrosion/irritation:**  
Not classified based on available information.

### Product:

**Remarks:** May cause skin irritation in susceptible persons.

**Components:**

**ALIPHATIC HYDROCARBON:**

Result: Mildly irritating to skin.

**ALKOXYLATED ALCOHOL:**

Result: Not irritating to skin.

**ALKANOL POLYALKOXYLATE:**

Result: Not irritating to skin.

**Serious eye damage/eye irritation:**

Causes serious eye irritation.

**Product:**

**Remarks:**

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

**Components:**

**ALIPHATIC HYDROCARBON:**

Result: Mildly irritating to eyes.

**ALKOXYLATED ALCOHOL:**

Result: Corrosive

**ALKANOL POLYALKOXYLATE:**

Result: Irritating to eyes.

**Respiratory or skin sensitization:**

**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 presents 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 presents at levels greater than or equal to 0.1 % is identified as carcinogen or potential carcinogen by OSHA.

**NTP:** No component of this product presents 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:**

LC50 (Pimephales promelas (Fathead minnow)): 16.53 mg/l  
Exposure time: 96hr.  
Test Method: static test  
Remarks: Based on similar product.

LC50 (Leuciscus idus (Golden orfe)): ca. 175mg/l  
Exposure time: 96hr.  
Test Method: OECD Test Guideline 203  
Remarks: Information given is based on data on the components and the ecotoxicology of similar products.

**Toxicity to daphnia and  
Other Aquatic invertebrates:**

EC 50 (Water flea (Daphnia magna)): 4.55 mg/l  
Exposure time: 48hr.  
Test Type: static test  
Remarks: Based on similar product.

**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

**ALKOXYLATED ALCOHOL**

**Toxicity to fish:**

LC50 (Danio rerio (Zebra Fish)): 0.876 mg/l  
Exposure time: 96h  
Test type: semi-static test  
Method: Directive 67/548/EEC, Annex V, C.1.  
Remarks: Information given is based on data obtained from similar substances.

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

EC50 (Daphnia magna (Water flea)): 0.999 mg/l  
Exposure time: 48hr  
Test Type: static test

**Toxicity to algae/aquatic plants:**

EC50 (Pseudokirchneriella subcapitata (Green algae)): 0.41 mg/l  
End point: Growth inhibition  
Exposure time: 72hr  
Test Type: static test  
Method: OECD Test Guideline 201  
Remarks: The information given is based on data obtained from similar substances.

**Toxicity to fish (Chronic toxicity):**

NOEC (Lepomis macrochirus (Bluegill sunfish)): 0.16 mg/l  
Exposure time: 10 d  
Test Type: flow-through test

**Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)**

NOEC (Daphnia magna (Water flea)): 0.77 mg/l  
End Point: Reproduction Test  
Exposure time: 21d  
Test Type: flow-through test  
Remarks: Information given is based on data obtained from similar substances.

**ALKANOL POLYALKOXYLATE**

**Toxicity to fish:**

LC50 (Danio rerio (Zebra fish)): 1-10 mg/l  
Exposure time: 96h

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

EC 50 (Daphnia magna (Water flea)): 5-10 mg/l  
Exposure time: 48h

**Toxicity to microorganisms:**

EC 50: > 1,000 mg/l

**Persistence and degradability**

**Components:**

**ALKOXYLATED ALCOHOL:**

**Biodegradability:**

Result: readily biodegradable  
Biodegradation: 95 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301F

**ALKANOL POLYALKOXYLATE:**

**Biodegradability:**

Biodegradation: 50-70%  
Exposure time: 28 d

**Chemical Oxygen Demand (COD):**

2,170 mg/g  
Method: Chemical oxygen demand

**Dissolved Organic carbon (DOC):**

540 mg/g

**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. Toxic to aquatic life.

**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 Regulations**

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**National Regulations**

**49 CFR**

Not regulated as a dangerous good.

**Special precautions for user**

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

**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:**

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:**

TCSI:	Not in compliance with the inventory
TSCA:	All substances listed as active on the TSCA inventory
AHC:	On the inventory, or in compliance with the inventory
DSL:	All components of this product are on the Canadian DSL
ENCS:	On the inventory, or 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

#### **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**

### **Further 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.
H319	Causes serious eye irritation.

#### **Full text of other abbreviations**

Acute Tox.	Acute toxicity
Asp. Tox.	Aspiration hazard
Eye Dam.	Serious eye damage
Eye Irrit.	Eye irritation
Flam. Liq.	Flammable liquids
ACGIH	USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL	USA. NIOSH Recommended Exposure Limits
OSHA P0	USA. OSHA – Table Z-1 Limits for Air Contaminants – 1910.1000
OSHA Z-1	USA. Occupational Exposure Limits (OSHA) – Table Z-1 Limits for Air Contaminants
ACGIH / TWA	8-hour, time-weighted average.
NIOSH REL / TWA	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	STEL – 15-minute TWA exposure that should not be exceeded at any time during the workday.
OSHA P0 / TWA	8-hour, time weighted average
OSHA Z-1 / TWA	8-hour time weighted average

## **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