



Solve 9233

Safety Data Sheet

Date Issued: 05/26/2020

Date Revised: 08/29/2018

1. **PRODUCT AND COMPANY IDENTIFICATION**

Product Name: Solve 9233

Use of Substance/Mixture: Flocculating agent

Details of the supplier of the safety data sheet:

WaterSolve, LLC 5031 68th Street Caledonia, Michigan 49316, USA
www.gowatersolve.com

Emergency telephone number

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 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

Hazardous Components

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

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 eye(s) 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.
- 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
- This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity when deciding whether to induce vomiting.

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 firefighting to enter drains or water courses.

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

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:

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

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.

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

Remarks: The suitability for a specific workplace should be discussed with the producers of the protective glove.

Eye protection

Safety glasses.

Skin and body protection

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

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	liquid
Color:	Yellow
Odor:	No data available
Odor Threshold:	No data available
pH:	3.2 – 4.2 (20° C), Concentration: 1%
Melting point/freezing point:	No data available
Boiling Point boiling range:	103°C
Flash point:	>100°C
Evaporation Rate:	No data available
Flammability (solid, gas):	No data available
Self-ignition:	No data available
Explosive properties	
Upper Limits:	No data available
Lower limits:	No data available
Vapor Pressure:	No data available
Relative vapor density:	No data available
Relative density:	No data available
Density:	1.03 g/cm ³ (20°C)
Solubility in Water:	Soluble
Solubility in other solvents:	No data available
Partition coefficient	
Thermal decomposition:	No data available
Viscosity, dynamic	< 4,000 mPa.s @ (20°C)
Viscosity, kinematic	> 21 mm ² /s @ (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:	Keep away from heat, flames and sparks and other ignition sources.
Incompatible Materials:	Strong oxidizers agents, strong reducing agents.
Hazardous decomposition	

products: Carbon monoxide, Carbon dioxide (CO₂), Nitrogen oxides (NO_x), Hydrocarbons.

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:

LD50 (Rat, male and female): > 5.28 mg/l
Exposure time: 4 h
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: Repeated exposure may cause skin dryness or cracking.

Remarks: May cause skin irritation in susceptible persons.

Components:

ALIPHATIC HYDROCARBON

Result: Mildly irritating to skin

ALCOHOL 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: Risk of serious damage to eyes

ALCOHOL ALKOXYLATES:

Result: Risk of serious damage 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 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:

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

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: LC50 (Fish): 1-10 mg/l
Exposure time: 96h
Test Type: static test

Toxicity of daphnia and other Aquatic invertebrates: EC50 (Daphnia (water flea)): > 1 - 10 mg/l
Exposure time: 48hr.
Test Type: 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

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.
IATA - DGR					Not dangerous goods
IMDG - Code					Not dangerous goods
CFR					Not dangerous goods
*ORM = ORM-D, CBL=COMBUSTIBLE LIQUID					
Marine pollutant					No

Dangerous goods description (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.
TSCA:	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

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

Full text of other abbreviations

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

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 information 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