



## Solve 9407

# Safety Data Sheet

Date Issued: 03/08/2019

Date Revised: 01/04/2018

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Solve 9407

**Use of Substance/Mixture:** Flocculating agent

**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)

### 2. HAZARDS IDENTIFICATION

**GHS Classification in accordance with 29 CFR 1910.1200**

Combustible Dust

**GHS Label element**

Signal word: Warning

Hazard statements: May form combustible dust concentrations in air.

**Other hazards:** None known

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance/Mixture:** Mixture

**Hazardous components**

Chemical Name	CAS-No.	Classification	Concentration (%)
AMIDE	Trade Secret	Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)	$\geq 10 - < 15$
ORGANIC ACID	Trade Secret	Eye Irrit. 2A; H319	$\geq 1.5 - < 5$

Trade Secret Composition – conceal concentration

### 4. FIRST AID MEASURES

**General Advice:** No hazards which require special first aid measures.

**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:** 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:**

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).

**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.

**Specific hazards during firefighting:** Organic dusts at sufficient concentration can form explosive mixtures in air. 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, Nitrogen oxides (NO<sub>x</sub>), acid vapors, ammonia

**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:**

Avoid dust formation. Avoid breathing dust. 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:**

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers, for disposal.

7. **HANDLING AND STORAGE**

**Advice on protection against fire and explosion:**

Take measures to prevent the buildup of electrostatic charge. Provide appropriate exhaust ventilation at places where dust is formed.

**Advice on safe handling:**

Avoid dust formation. Smoking, eating and drinking should be prohibited in the application area. For personal protection see Section 8.

**Conditions for safe storage:**

Containers which are opened must be carefully resealed and kept upright to prevent leakage. No smoking. Electrical installations/working materials must comply with the technological safety standards.

**Materials to avoid:**

No materials to be especially mentioned.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters/Permissible concentration	Basis
AMIDE	Trade Secret	TWA	10 mg/m <sup>3</sup>	US WEEL

**Engineering measures:**

Provide appropriate exhaust ventilation at places where dust is formed. General room ventilation should be adequate for normal conditions of use. However, if unusual operating conditions exist, 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**

**Respiratory protection:**

No personal respiratory protective equipment normally required.

**Eye protection**

Safety glasses.

**Skin and body protection**

Wear resistant gloves (consult with your safety equipment supplier). Wear as appropriate: safety shoes

**Hygiene measures:** Avoid breathing dust.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	powder
<b>Color:</b>	White, light yellow
<b>Odor:</b>	very faint
<b>Odor threshold:</b>	No data available
<b>pH:</b>	6.5, Concentration: 10 g/l
<b>Melting point/freezing point:</b>	Not applicable
<b>Boiling Point/boiling range:</b>	Not applicable
<b>Flash point:</b>	Not applicable
<b>Evaporation rate:</b>	No data available
<b>Flammability (solid, gas):</b>	No data available
<b>Self-ignition:</b>	No data available
<b>Upper explosion limit:</b>	No data available
<b>Lower explosion limit:</b>	No data available
<b>Vapour pressure:</b>	No data available
<b>Relative vapour Density:</b>	No data available
<b>Relative density:</b>	No data available
<b>Density:</b>	ca. 0.72 g/cm <sup>3</sup>
<b>Bulk Density:</b>	650 - 700 kg/m <sup>3</sup>

<b>Solubility in Water:</b>	Soluble
<b>Solubility in other solvents:</b>	No data available
<b>Partition coefficient: n-Octanol/water:</b>	No data available
<b>Auto-ignition temperature:</b>	> 500 °C
<b>Thermal decomposition:</b>	> 500 °C
<b>Viscosity, dynamic</b>	> 180 mPa.s (20°C)
<b>Viscosity, kinematic:</b>	No data available
<b>Oxidizing properties:</b>	No data available

10. **STABILITY AND REACTIVITY**

<b>Reactivity:</b>	No decompositions if stored and applied as directed.
<b>Chemical Stability:</b>	Stable under recommended storage conditions.
<b>Possibility of Hazardous reactions:</b>	Product will not undergo hazardous polymerization.
<b>Conditions to avoid:</b>	Heat, flames and sparks. Keep away from heat, flames, sparks and other ignition sources.
<b>Incompatible Materials:</b>	Acids, chlorine, metals, strong reducing agents, nitrates, acids, strong oxidizing agents, strong bases
<b>Hazardous decomposition products:</b>	acid vapors, carbon dioxide (CO <sub>2</sub> ), carbon monoxide, nitrogen oxides (NO <sub>x</sub> ), ammonia

11. **TOXICOLOGICAL INFORMATION**

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

**Product:**

**Acute oral Toxicity:** LD 50 (Rat): > 5,000 mg/kg

**Components:**

**ORGANIC ACID:**

**Acute oral toxicity:** LD 50 (Rat): 3 g/kg

**Skin corrosion/irritation:**

Not classified based on available information.

**Product:**

Result: Not irritating to skin.

**Components:**

**AMIDE:**

Result: Not irritating to skin

**ORGANIC ACID:**

Result: Slightly irritating to skin

**Serious eye damage/eye irritation:**

Not classified based on available information.

**Product:**

Result: Mildly irritating to eyes

Remarks: Unlikely to cause eye irritation or injury. Product dust may be irritating to eyes, skin and respiratory system.

**Components:**

**AMIDE:**

Result: Not irritating to eyes

**ORGANIC ACID:**

Result: Severely irritating to eyes

**Respiratory or skin sensitization:**

**Skin sensitization:**

Not classified based on available information

**Respiratory sensitization:**

Not classified based on available information

**Product:**

Species: Guinea pig

Method: OECD Test Guideline 406

**Germ cell mutagenicity:**

Not classified based on available information.

**Components:**

**AMIDE:**

Genotoxicity in vitro:

Test Type: Ames test

Result: Negative

**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

**Product:**

No aspiration toxicity classification

**Further information:**

**Product:**

Remarks: No data available

12. **ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Product:**

**Toxicity to fish:**

LC 50 (Danio rerio (zebra fish)): > 1 - 10 mg/l  
Exposure time: 96hr.  
Method: OECD Test Guideline 203  
Remarks: Based on a similar product formulation.

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

EC50 (Water flea (Daphnia magna)): ca. 35 mg/l  
Exposure time: 48 hr.  
Method: OCED Test Guideline 202

**Ecotoxicology Assessment**

**Acute aquatic toxicity:**

Acute aquatic toxicity Category 2; Toxic to aquatic life.

**Chronic aquatic toxicity:**

Not classified based on available information.

**Components:**

**AMIDE:**

**Toxicity to fish:**

LC50 (Leuciscus idus (Golden orfe)): > 6,810 mg/l  
Exposure time: 96h

LC50 (Poecilia reticulata (Guppy)): 17,500 mg/l  
Exposure time: 96h

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

EC50 Water flea (Daphnia magna): 3,910 mg/l  
Exposure time: 48h  
Method: Static

**ORGANIC ACID**

**Toxicity to fish:**

LC50 (Carassius auratus (goldfish)): 440 – 706 mg/l  
Exposure time: 96h

**Persistence and degradability:**

**Components:**

**AMIDE:**

Biodegradability:

Remarks: Expected to be ultimately biodegradable

**Bioaccumulative potential:**

**Components:**

**AMIDE:**

Bioaccumulation:

Species: Green algae (Chlorella fusca vacuolata)  
Bioconcentration factor (BCF): 11,700  
Exposure time: 24h  
Concentration: 0.05 mg/l

Method: Static

Partition coefficient:

n-octanol/water:

log Pow: -2.11

**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:** Dispose of in accordance with all applicable local, state and federal regulations. The product should not be allowed to enter drains, water courses or the soil.

**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.

**14. TRANSPORT INFORMATION**

**International Transport Regulations**

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT /LTD. QTY.
U.S. DOT -ROAD					Not dangerous goods
U.S. DOT - RAIL					Not dangerous goods
U.S. DOT - INLAND WATERWAYS					Not dangerous goods
TRANSPORT CANADA - ROAD					Not dangerous goods
TRANSPORT CANADA - RAIL					Not dangerous goods
TRANSPORT CANADA - INLAND WATERWAYS					Not dangerous goods
INTERNATIONAL MARITIME DANGEROUS GOODS					Not dangerous goods
INTERNATIONAL AIR TRANSPORT ASSOC. - CARGO					Not dangerous goods
INTERNATIONAL AIR TRANSPORT ASSOC. - PASSENGER					Not dangerous goods
MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES					Not dangerous goods

\*ORM = ORM-D, CBL=COMBUSTIBLE LIQUID

Marine pollutant		no
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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:** Combustible dust

**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:**

TSCA:	On TSCA inventory.
DSL:	All components of this product are on the Canadian DSL.
AICS:	Not in compliance with the inventory.
ENCS:	Not in compliance with the inventory.
KECI:	Not 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 list**

No substances are subject to a Significant New Use Rule.

**16. OTHER INFORMATION**

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

H319 Causes serious eye irritation.

**Full text of other abbreviations**

Eye Irrit. Eye irritation

**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:**

AICS: Australian Inventory of Chemical Substances  
ASTM: American Society for the Testing of Materials



ACGIH: American Conference of Industrial Hygienists  
bw: Body Weight  
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  
DIN: Standard of the German Institute for Standardization  
DSL: Domestic Substances List (Canada)  
ECx: Concentration associated with x% response  
EmS: Emergency Schedule  
ENCS: Existing and New Chemical Substances  
ErCx: Concentration associated with x% growth rate response  
ERG: Emergency Response Guide  
FG: Food grade  
FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act  
GHS: Globally Harmonized System of Classification and Labeling of Chemicals  
GLP: Good laboratory practice  
H-statement: Hazard Statement  
HMIRC: Hazardous Materials Information Review Commission  
HMIS: Hazardous Materials Identification System  
IARC: International Agency for Research on Cancer  
IATA: International Air Transport Association  
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA)  
IBC: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IC50: Half maximal inhibitory concentration  
ICAO: International Civil Aviation Organization  
ICAO-TI (ICAO): Technical Instructions by the "International Civil Aviation Organization"  
IECSC: Inventory of Existing Chemical Substances in China  
IMDG: International Maritime Code for Dangerous Goods  
IMO: International Maritime Organization  
ISHL: Industrial Safety and Health Law (Japan)  
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  
KECI: Korea Existing Chemicals Inventory  
MARPOL: International Convention for the Prevention of Pollution from Ships  
MSHA: Mine Safety and Health Administration  
n.o.s.: Not otherwise Specified  
NFPA: National Fire Protection Association  
NO(A)EC: No Observable Effect Loading Rate  
NO(A)EL: No Observable (Adverse) Effect Level  
NTP: National Toxicology Program  
NIOSH: National Institute for Occupational Safety and Health  
NOELR: No Observable Effect Loading Rate  
NZIoC: New Zealand Inventory of Chemicals  
OECD: Organization for Economic Co-operation and Development  
OPPTS: Office of Chemical Safety and Pollution Prevention  
OEL: Occupational Exposure Limit  
OSHA: Occupational Safety and Health Administration  
P-Statement: Precautionary Statement  
PBT: Persistent, Bioaccumulative and Toxic  
PICCS: Philippines Inventory of Chemicals and Chemical Substances  
PMRA: Health Canada Pest Management Regulatory Agency  
PPE: Personal Protective Equipment  
Q SAR: (Quantitative) Structure Activity Relationship  
RCRA: Resource Conservation and Recovery Act  
REACH: Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals  
RQ: Reportable Quantity  
RTK: Right to Know

SADT: Self Accelerating Decomposition Temperature  
SARA: Superfund Amendments and Reauthorization Act  
STEL: Short-term exposure limit  
SDS Safety Data Sheet  
STOT: Specific Target Organ Toxicity  
TCSI: Taiwan Chemical Substance Inventory  
TSCA: Toxic Substances Control Act (United States)  
TLV: Threshold Limit Value  
TWA: Time-weighted average  
UN: United Nations  
UNRTDG: United Nations Recommendations on the Transport of Dangerous Goods  
vPvB: Very Persistent and Very Bioaccumulative  
WEL: Workplace Exposure Level  
WHMIS: Workplace Hazardous Materials Information System  
(WAF): *water-accommodated fraction*