



Solve 426

Safety Data Sheet

Date Issued: 01/21/2021

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1. **IDENTIFICATION**

PRODUCT NAME: SOLVE 426

RECOMMENDED USE OF THE CHEMICAL AND RESTRICTIONS ON USE:

Use of the Substance/mixture: Coagulant

Recommended restrictions on use: none

COMPANY: WaterSolve, LLC, 5031 68th St. S.E. Caledonia, MI 49316, USA
For Product information call 616-575-8693. www.gowatersolve.com
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

The product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

GHS-Labeling

Product is not hazardous under US GHS.

Hazard(s) not otherwise classified (HNOC) or not covered/classified by GHS

Advice: Contaminated surfaces will be extremely slippery.

Potential environmental effects: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3. **COMPOSITION/INFORMATION ON INGREDIENTS**

Substances/Mixtures

Mixture

Chemical nature Aqueous solution of Polymeric Quaternary Amine

Not a hazardous substance or mixture according to Globally Harmonised System (GHS).

4. **FIRST AID MEASURES**

Description of first aid measures

General Advice

Show this safety data sheet to the doctor in attendance.

Ingestion

If a person feels unwell or symptoms of skin irritation appear, consult a physician. Do not induce vomiting without medical advice.

Skin contact

Wash off immediately with soap and plenty of water.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Inhalation

Move to fresh air. No hazards which require special first aid measures.

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

Use water mist, carbon dioxide (CO₂) or dry powder.

Unsuitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special protective actions for fire-fighters

In the event of fire, wear self-contained breathing apparatus.
Use NIOSH/MSHA approved respiratory protections.

Further information

In the event of fire, cool tanks with water spray.

6. **ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures

For personal protection, see section 8. Use rubber boots.

Environmental precautions

Should not be released into the environment.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material. Sweep up and shovel into suitable container for disposal. Remove residues by scrubbing. Prevent product from entering drains.

Additional advice

If the product contaminates river and lakes or drains inform respective authorities. Contaminated surfaces will be extremely slippery.

7. **HANDLING AND STORAGE**

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice.
For personal protection see Section 8.

Conditions for safe storage, including any incompatibilities

Store at room temperature in the original container.

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, iron, copper, aluminum, acids

Storage stability:

Storage temperature: 41-77 °F

Other data: Stable under recommended storage conditions.

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.

Contains no substances with occupational exposure limit values

Appropriate Engineering controls:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product. Avoid contact with skin and eyes. Ensure that eyewash stations and safety showers are close to the workstation location.

Ensure adequate ventilation.

Individual protection measures, such as personal protective equipment

Industrial Hygiene

Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. Ensure that eyewash stations and safety showers are close to the workstation location. Avoid contact with skin, eyes and clothing. Wash thoroughly with soap and water after handling condensate or wipes and after cleaning the exhaust ventilation system.

Respiratory protection

None under normal use.

Hand protection

Glove material: Imperious 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.

Eye protection

Tightly fitting safety goggles.

Skin and body protection

Long sleeved clothing. No special requirements.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state: liquid

Form: aqueous solution

Color: clear, colorless, or amber

Odour:	Amine-like
Odour Threshold:	No data available
pH:	4-7
Freezing point/Melting Point:	-0.4 °F
Initial boiling point/range:	ca. 212 °F
Flash point:	> 212 °F (closed cup) (Does not flash)
Evaporation rate:	No data available
Flammability (solid, gas):	Not applicable
Explosive properties:	
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapor pressure:	No data available
Relative Vapour density:	No data available.
Density:	1.1 – 1.2 g/cm ³
Relative density:	No data available
Water solubility:	completely soluble
Partition coefficient:	
n-octanol/water:	Not applicable
Auto-ignition temperature:	No data available
Decomposition temperature:	> 212 °F
Viscosity	
Dynamic:	ca. 5,000 mPa.s
Kinematic:	No data available
Surface tension:	Not applicable

10. **STABILITY AND REACTIVITY**

Reactivity

Stable under normal conditions

Chemical stability

The product is chemically stable.

Possibility of hazardous reactions

Hazardous polymerization does not occur.

Conditions to avoid

None known

Incompatible materials

Strong oxidizing agents, iron, copper, aluminum, acids

Hazardous decomposition products

Carbon dioxide (CO₂), Carbon monoxide, Ammonia, Nitrogen oxides (NO_x), 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/6, 160 mg/kg

Remarks: estimated

Acute inhalation toxicity:	LC50/Rat/4 h/>/20 mg/l Remarks: estimated
Acute dermal toxicity:	LD50/Rabbit/>/10,000 mg/kg Remarks: estimated
Skin corrosion/irritation:	Conclusion: No skin irritation.
Serious eye damage/eye irritation:	Conclusion: No eye irritation.
Respiratory or skin sensitization	
Skin sensitization:	Conclusion: Not sensitizing.
Germ cell mutagenicity	
Genotoxicity in vivo:	Conclusion: Based on available data; the classification criteria are not met.
Carcinogenicity	
Carcinogenicity:	Based on available data, the classification criteria are not met.
Reproductive toxicity	
Toxicity for reproduction:	Conclusion: Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Aquatic toxicity

Remarks: Ecotoxicological information provided is based on a structurally or compositionally similar product. Acute toxicity tests conducted using environmentally representative water.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

LC50/96 h/Branchydanio rerio (zebra fish)/OECD Test Guideline 203: > 10 – 100 mg/l

Remarks: fresh water

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

IC50/72 h/Pseudokirchneriella subcapitata (green algae)/Growth inhibition/OECD Test Guideline 201: > 10 – 100 mg/l

Toxicity to other organisms

Persistence and degradability

Biological degradability:

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

Modified Strum Test/OECD Test Guideline 301B/28d: < 70 %

Not readily biodegradable.

Bioaccumulative potential

Partition coefficient: n-octanol/water: Not applicable

Mobility in soil

Water solubility: completely soluble.

Surface tension: not applicable

Other adverse effects

No data available

13. **DISPOSAL CONSIDERATIONS**

Product

Where possible recycling is preferred to disposal or incineration. In accordance with local and national regulations.

Contaminated packaging

Must be disposed of in accordance with local and national regulations.

14. **TRANSPORT INFORMATION**

Land transport

Not classified as dangerous in the meaning of transport regulations.

Sea Transport

Not classified as dangerous in the meaning of transport regulations.

Air transport

Not classified as dangerous in the meaning of transport regulations.

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

The material does not contain any chemical components with known CAS numbers that exceed the threshold (DeMinimis) 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 or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Epichlorohydrin (106-89-8) < 5 PPM

1,3-Dichloropropan-2-ol (96-23-1) < 500 PPM

3-Chloropropane-1,2-diol (96-24-2) < 100 PPM

Glycidol (556-52-5) < 10 PPM

Notification status:

USA: All components of this product are included in 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 in 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 the EINECS.

Australia:	All components of this product are included in the Australian Inventory of Chemical Substances (AICS) or are not required to be listed on the Australian Inventory of Chemical Substances (AICS).
China:	All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese inventory.
Japan:	All components of this product are included on the Japanese (ENCS) inventory or are not required to be listed on the Japanese (ENCS) inventory.
South Korea:	All components of this product are included in the Korean (ECL) inventory or are not required to be listed on the Korean (ECL) inventory.
New Zealand:	All components of this product are included in the New Zealand Inventory (NZIoC) or are not required to be listed on the New Zealand Inventory (NZIoC).
Philippines:	All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine (PICCS) inventory.
Taiwan:	All components of this product are included on the Taiwan Toxic Chemical Substances Control Act Inventory.

16. **OTHER INFORMATION**

NFPA Rating

Health:	1
Fire:	1
Reactivity:	0

HMIS Rating:

Health:	1
Flammability:	0
Reactivity:	0

Training advice: Read the safety data sheet before using this product.

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

