



Solve 426

Safety Data Sheet

Date Issued: 05/17/2017

Date Revised: 09/15/2017

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

PRODUCT NAME: **SOLVE 426**

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

Classification of the substance or mixture

The material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard's (29CFR 1910.1200) implementation of the Globally Harmonized System (GHS), i.e., material is not a dangerous substance or mixture requiring GHS classification according to the US GHS regulations.

GHS-Labeling: Product is not hazardous under US GHS.

Other hazards which do not result in classification

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

Chemical nature

Aqueous solution of Polymeric Quaternary Amine

No hazardous ingredients

Further Information

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1900.1200.

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 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

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

Components	CAS-No.	Value	From of exposure	Control parameters	Update	Basis
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

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, aqueous solution
Color:	clear, colorless, or amber
Odour:	Amine-like
Melting Point/Range:	Melting point/range -18 °C
Initial boiling point/range:	Boiling point/boiling range ca. 212 °F
Flash point:	> 212 °F (closed cup) Does not flash
Explosive properties	
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapor pressure:	No data available
Density:	1.1 – 1.2g/cm ³
Water solubility (ies):	completely soluble
Partition coefficient:	
n-octanol/water:	Not applicable
Auto-ignition temperature:	No data available
Decomposition temperature:	> 212 °F
Viscosity	
Viscosity, dynamic:	ca. 5,000 mPa.s
Surface tension:	Not applicable

10. **STABILITY AND REACTIVITY**

Reactivity

Chemical stability

Possibility of hazardous reactions

Hazardous reactions:

Hazardous polymerization does not occur.

Conditions to avoid

Conditions to avoid:

None known

Incompatible materials

Material to avoid:

Strong oxidizing agents, iron, copper, aluminum, acids

Hazardous decomposition products

Hazardous decomposition

Products:

Carbon dioxide (CO₂)
Carbon monoxide
Ammonia
Nitrogen oxides (NO_x)
Hydrogen chloride (HCl)

Thermal decomposition:

>212 °F

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.

Remarks: estimated

Rat/6,160 mg/kg/LD50

Acute inhalation toxicity:

LC50/Rat/4 h/20mg/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

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

Invertebrate Test Results

Duration: 48 hr

Species: Water flea (*Daphnia magna*)

LC50 0.32 mg/L

48 hour Toxicity/Daphnid, *Daphnia magna*/EPA 821-R-02-012 Method 2021.0

and Conduction Acute toxicity tests on the test materials with fishes, macroinvertebrates, and amphibians
ASTM E-729-96

Fish Test Results

Duration: 96 hr

Species: Fathead Minnow (*Pimephales promelas*)

LC50 0.97 mg/L

96 hour Toxicity/*Pimephales promelas*/EPA 821-R-02-012 Method: 2000.0 and Conduction Acute toxicity tests on the test materials with fishes, macroinvertebrates, and amphibians ASTM-E-729-96

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

The product is not expected to bioaccumulate. Because of the high molecular weight of the polymer diffusion through biological membranes is very small.

Partition coefficient: n-octanol/water: Not applicable

Mobility in soil

Water solubility: completely soluble.

Surface tension: 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. EPA Hazardous Waste- NO

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.

Special precautions for user

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Title III Section 311 Categories:

Immediate (Acute) Health Effects: No
Delayed (Chronic) Health Effects: No
Fire Hazard: No
Sudden Release of Pressure Hazard: No
Reactivity Hazard: No

SARA 302 Extremely Hazardous Substances

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
Not present

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.
None present

CERCLA Hazardous substance (Reportable Quantities)

None Present
0 kg

California Proposition 65

Epichlorohydrin (106-89-8) < 0.0005%
1,3-dichloropropan-2-ol (96-23-1) < 0.049%
3-Chloropropane-1,2-diol (96-24-2) < 0.0099%
Glycidol (556-52-5) < 0.0009%

Remarks: This product contains a chemical or chemicals known to the state of California to cause cancer, birth defects or other reproduction harm.

Notification status:

TSCA: 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.

DAL: 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).

EINECS: 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.

AICS: 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).

IECSC: All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese inventory.

ENCS: All components of this product are included on the Japanese (ENCS) inventory or are not required to be listed on the Japanese (ENCS) inventory.

KECI: All components of this product are included on the Korean (ECL) inventory or are not required to be listed on the Korean (ECL) inventory.

NZIoC: 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).

PICCS: All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine (PICCS) inventory..

TCSI: All components of this product are included on the Taiwan Toxic Chemical Substances Control Act Inventory.

16. OTHER INFORMATION

NFPA Rating

Health: 1

Flammability: 0

Reactivity: 0

HMIS Rating:

Health: 1

Flammability: 0

Reactivity: 0

Training advice

Read the safety data sheet before using this product.

Sources of key data used to compile the Safety Data Sheet

Regulations, databases, literature, own tests.

DATE REVISED: 09/15/2017

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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

LC_{xx}: Lethal Concentration, for xx percent of test population

LD_{xx}: Lethal Dose, for xx percent of test population

IC_{xx}: Inhibitory Concentration for xx of a substance

EC_{xx}: 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