



Solve 414

Safety Data Sheet

Date Issued: 08/01/2019

Date Revised: 12/03/2016

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

PRODUCT NAME: **SOLVE 414**

Recommended use of the chemical or Substance/mixture: Flocculating agent

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 1910.1200.

4. FIRST AID MEASURES

Description of first aid measures

General advice: Show this safety data sheet to the doctor in attendance.

Ingestion: No hazards which require special first aid measures.

Skin contact: Wash off immediately with plenty of soap and water.

Eye contact: Rinse thoroughly with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.

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

Most important symptoms and effects, both acute and delayed.

5. **FIRE FIGHTING MEASURES**

Suitable Extinguishing Media:

water mist, carbon dioxide (CO₂), dry chemical.

Special hazards arising from the substance or mixture:

Heating can release hazardous gases.

Nitrogen oxides (NO_x), carbon oxides (CO_x), hydrogen chloride (HCl)

Special protective actions for fire-fighters:

In the event of fire, wear self-contained breathing apparatus.

Further information:

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

6. **ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. For personal protection see SDS Section 8. Material can create slippery conditions.

Environmental precautions

Should not be released into the environment.

Methods and materials for containment and cleaning up

Spills are very slippery. 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 rivers 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 SDS Section 8.

Conditions for safe storage, including any incompatibilities

Store at room temperature. Do not freeze. The product may stratify.

Material to avoid:

Strong oxidizing agents, strong acids, iron, copper, aluminum

Storage stability:

Storage period: 24 months

Storage Temperature: 32 - 95°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
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Contains no substances with occupational exposure limit values.

Appropriate Engineering controls:

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin and eyes. Wash hands and face before breaks and immediately after handling the product. 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:

Safety goggles

Skin and body protection:

Protective clothing.

9. **PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties

Physical state: liquid, viscous
Color: colorless, amber
Odor: amine-like
Melting Point Range: -0.4 °F
Initial boiling point/range: ca. 212°F
Flash point: > 199.4°F (closed cup)
Explosive properties
Upper explosion limit: No data available
Density: 1,030 – 1,050 kg/m³
Water solubility (ies): completely soluble
Oxidizing potential: The substance or mixture is not classified as oxidizing.
Surface tension: No data available

10. **STABILITY AND REACTIVITY**

Reactivity: No data available

Chemical stability: Stable

Possibility of hazardous reactions

Hazardous reactions: Hazardous polymerization does not occur.

Conditions to avoid

Conditions to avoid: Stable under normal conditions

Incompatible materials

Material to avoid: Strong oxidizing agents, strong acids, iron, copper, aluminum

Hazardous decomposition products

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:	LD50/Rat/ 10,000 mg/kg Remarks: estimated
Acute inhalation toxicity:	LC50/Rat/4h/> 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:	Conclusion: No data available
Carcinogenicity	Remarks: No information available
Reproductive toxicity	
Toxicity for reproduction:	Reproductive effects/Rat Remarks: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Aquatic toxicity

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

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

LC 50/96 hr Brachydanio rerio (Zebra fish)/OECD Test Guideline 203: 10 - 100 mg/l

Remarks: fresh water

EC 50/48 hr Daphnia magna (Water flea)/Immobilization/OECD Test Guideline 202: >10-100 mg/l

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

Toxicity to other organisms

No data available

Persistence and degradability

Biological degradability:

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

Not readily biodegradable.

Bioaccumulative potential

No data available

Mobility in soil

Water solubility: completely soluble.

Surface tension: Not determined

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.

None 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

This product does not contain any chemical known to the State of California to cause cancer, birth defects, or any other reproductive harm.

None present ()

Notification status:

All components of this product are included on the United States TSCA Chemical Inventory or are not required to be listed on the United States TSCA Chemical Inventory.

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).

All components of this product are included on the European Inventory of Existing Chemical Substances (EINECS) or are not required to be listed on EINECS.

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).

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

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

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

All components of this product are included in the New Zealand Inventory of Chemical Substances (NZIoC) or are not required to be listed on the New Zealand inventory (NZIoC).

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

This product's Taiwan Toxic Chemical Substances Control Act Inventory status has NOT been determined.

15. **OTHER INFORMATION**

NFPA RATING

Health: 0

Fire: 1

Reactivity: 0

HMIS Rating:

Health: 0

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