



Solve 153

Safety Data Sheet

Date Issued: 07/30/2021
Date Revised: 06/05/2020

1. IDENTIFICATION

PRODUCT NAME: SOLVE 153

Recommended use of the chemical and restrictions on use

Use of the Substance/mixture: Flocculating agent.

Recommended restrictions on use:

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

Eye irritation; Category 2

GHS-Labeling

Hazard pictograms



Signal Word: WARNING

Hazard statements: H319 Causes serious eye irritation.

Precautionary Statements:

Prevention: P264 P280	Wash hands thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection.
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Response: P302 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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P337 + P313	If eye irritation persists: Get medical advice/attention.
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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

Anionic polyacrylamide, emulsion.

Hazardous components

CHEMICAL NAME	CAS-NO.	CONCENTRATION %
Distillates (petroleum), hydrotreated light	64742-47-8	20 – 24 %
Alcohols, C10-16, ethoxylated	68002-97-1	0 – 2.5 %
Alcohols, C12-14, ethoxylated	68439-50-9	0 – 2.5 %
Alcohols, C12-16, ethoxylated	68551-12-2	0 – 2.5 %

Components listed above that have a zero minimum and common maximum range are interchangeably used components based on availability. Only one of these components is contained in the product up to the maximum amount noted.

4. FIRST AID MEASURES

Description of first aid measures

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

Ingestion: Rinse mouth with water. Call a physician immediately. DO NOT induce vomiting.

Skin contact: Take off contaminated clothing and shoes immediately. Wash off with plenty of water. Consult a physician if necessary. Wash contaminated clothing before reuse.

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

Inhalation: Remove to fresh air. If there is breathing difficulty, medical advice is required.

Most important symptoms and effects, both acute and delayed.

Symptoms: No information available.

Hazard: 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 spray, Alcohol-resistant foam, carbon dioxide (CO₂) or dry chemical.

Unsuitable extinguishing media:

Do not use a solid water stream as it may scatter and spread fire.

Solid water stream. Water may be ineffective.

Special protective actions for fire-fighters:

Wear self-contained breathing apparatus and protective suit.

Use NIOSH/MSHA approved respiratory protections.

Further information:

Cool containers/tanks with water spray.

6. **ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures

For personal protection see Section 8. Avoid contact with skin, eyes and clothing. Where the exposure level is not known, wear approved, positive pressure, self-contained respirator. Where the exposure level is known, wear approved respirator suitable for the level of exposure.

Environmental precautions

Prevent leakages from entering drains and ditches that lead to natural waterways.

Methods and materials for containment and cleaning up

Danger for slipping. Soak up with inert absorbent material. Shovel into suitable container for disposal. Flush with water. Use detergent if needed.

Additional advice

For personal protection see section 8.

7. **HANDLING AND STORAGE**

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Store at room temperature in the original container.

Flashpoint determination was performed using a Pensky-Martens type close cup method. The method indicates a flash point greater than 93.3°C (200 °F). Although there was no flashpoint detected below 93.3°C (200 °F) some flammable vapours were evolved during the test as evidenced by the enlargement of the flame: Therefore, caution should be exercised during storage and handling.

To avoid product degradation and equipment corrosion, do not use iron, copper or aluminum containers or equipment.

Material to avoid

Strong oxidizing agents.

Storage stability

Store at room temperature.

Reason: integrity

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.

Components	CAS-No.	Value	From of exposure	Control parameters	Update	Basis
Distillates (petroleum), hydrotreated light	64742-47-8		vapour	197 ppm 1,200 mg/m ³		

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, eyes and clothing. Do not breathe vapour. 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:

Keep away from tobacco products. Keep away from food and drink. Wash hands before breaks and immediately after handling the product.

Respiratory protection:

Where there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.

Use respiratory protection unless adequate local exhaust ventilation is provided, or exposure assessment demonstrates that exposures are within recommended exposure guidelines. Recommended Filter type: (filter A2-P2) (EN 14387)

Hand protection

Glove material: Nitrile rubber

Glove material: Impervious gloves, gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. 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.

Skin and body protection

Eye protection:

Tightly fitting safety goggles.

Environmental exposure controls:

No data available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state:	liquid
Form:	emulsion
Color:	white
Odour:	Sulphur dioxide
Odour Threshold:	not determined
pH:	4 – 6 (as aqueous solution)
Freezing/boiling point:	no data available
Initial boiling point and boiling range:	Boiling point/boiling range ca. 212 °F
Flash point:	> 212 °F (Pensky-Martens)
Evaporation rate:	No data available
Flammability (solid, gas):	Not classified as a flammability hazard
Explosive properties:	
Lower explosion limit	No data available
Upper explosion limit	No data available
Oxidizing properties	The substance or mixture is not classified as oxidizing.
Vapour pressure:	No data available
Relative Vapor Density:	No data available
Density:	ca. 1.0 g/cm ³
Water solubility:	dispersible

Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temp:	No data available
Viscosity, dynamic	No data available
Viscosity, kinematic:	> 20.5 mm ² /s (104 °F)
Oxidizing potential:	The substance or mixture is not classified as oxidizing.
Surface tension:	No data available

10. **STABILITY AND REACTIVITY**

Reactivity

Not classified as a reactivity hazard.

Chemical stability

Stable under normal conditions

Possibility of hazardous reactions

Hazardous polymerization does not occur.

Conditions to avoid

Stable under recommended storage conditions.

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

Carbon oxides (CO_x), Ammonia, and Nitrogen oxides (NO_x)

11. **TOXICOLOGICAL INFORMATION**

Information on toxicological effects

Acute oral toxicity:	Distillates (petroleum), hydrotreated light: LD50/Rat/>/5,000 mg/kg
Acute inhalation toxicity:	Distillates (petroleum), hydrotreated light: LC50/Rat/4 h/>/5.2 mg/l
Acute dermal toxicity:	Distillates (petroleum), hydrotreated light: LD50/Rabbit/>/2,000 mg/kg
Skin corrosion/irritation:	OECD Test Guideline 439/Read-across (Analogy) Conclusion: No skin irritation.
Serious eye damage /eye irritation:	Calculation method Conclusion: Causes serious eye irritation.
Respiratory or skin sensitization	
Skin sensitization:	Conclusion: Based on available data, the classification criteria are not met.
Skin sensitization:	Distillates (petroleum), hydrotreated light: Conclusion: This substance is not classified as a sensitizer.
Germ cell mutagenicity	

Genotoxicity in vitro:	Distillates (petroleum), hydrotreated light Conclusion: No known effect.
Genotoxicity in vivo:	Distillates (petroleum), hydrotreated light Conclusion: not mutagenic
Carcinogenicity	Distillates (petroleum), hydrotreated light: Not classified by IARC or NTP.
Reproductive toxicity	
Toxicity for reproduction	Conclusion: Based on available data, the classification criteria are not met.
Toxicity for reproduction	Distillates (petroleum), hydrotreated light: Conclusion: Did not show teratogenic effects in animal experiments.
Aspiration hazard	
Aspiration toxicity:	No aspiration toxicity classification.

12. **ECOLOGICAL INFORMATION**

Ecotoxicity effects

Aquatic toxicity:

LC50/96 h/Pimephales promelas (fathead minnow)/Acute toxicity/EPA Whole Effluent Toxicity (WET) Method 2000.0: 7.27 mg/l

Remarks: Actual product testing; fresh water

LC50/96 h/Oncorhynchus mykiss (rainbow trout)/Acute toxicity/OECD Test Guideline 203: > 100 mg/l

Remarks: similar product; fresh water

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

Remarks: similar product; fresh water

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

Remarks: similar product

EC50/48 h/Ceriodaphnia dubia (Water flea)/Immobilization/OECD Test Guideline 202: > 100 mg/l

Remarks: similar product

IC50/72 h/Green algae (Selenastrum capricornutum)/Growth inhibition/OECD Test Guideline 201: > 100 mg/l

Remarks: similar product

Toxicity to other organisms:

No data available.

Persistence and degradability:

Biological degradability: CO2 Evolution TEST/OECD Test Guideline 301B:

The polymeric ingredient is not readily biodegradable.

Bioaccumulative potential

Partition coefficient: n-octanol/water: No data available

Mobility in soil

Water solubility: dispersible
Surface tension: No data available

Other adverse effects:

No data available

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

13. DISPOSAL CONSIDERATIONS

Product

Recycling, recovery and reuse of material is recommended if permitted by regulations. If recycling is not practicable, dispose of in compliance with local regulations. Incineration is recommended.

Contaminated packaging: Package that cannot be cleaned must be disposed of the same way as the unused product.

14. TRANSPORT INFORMATION

Land transport

Not classified as dangerous in the meaning of transport regulations.

Store between 5-30°C

Protect from frost.

Keep away from direct sunlight

Sea Transport

Not classified as dangerous in the meaning of transport regulations.

Store between 5-30°C

Protect from frost.

Keep away from direct sunlight

Air transport

Not classified as dangerous in the meaning of transport regulations.

Store between 5-30°C

Protect from frost.

Keep away from direct sunlight

Special precautions for user

None known.

15. REGULATORY INFORMATION

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

SARA Title III Section 311 Categories:

Eye irritation, Category 2,

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

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 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.

Acrylamide (79-06-1) < 0.05 %
Ethylene oxide (75-21-8) (0 PPM <= 0.25 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 in the European Inventory of Existing Chemical Substances (EINECS) or are not required to be listed on 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).

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

New Zealand: All components of this product are NOT included on the New Zealand Inventory of Chemical Substances.

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.

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

16. OTHER INFORMATION

NFPA Rating

Health:	2
Fire:	1
Reactivity:	0

HMIS Rating:

Health:	2
Flammability:	1
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