



Solve 216C

Safety Data Sheet

Date Issued: 09/20/2021
Date Revised: 05/18/2020

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

1.1 Product identifier

PRODUCT NAME: **SOLVE 216C**
TYPE OF PRODUCT: Mixture

1.2 Relevant identified uses of the substance or mixture and uses advised against

IDENTIFIED USES: Processing aid for industrial applications
USES ADVISED AGAINST: None.

1.3 Details of the supplier of the safety data sheet

COMPANY: [WaterSolve, LLC, 5031 68TH Street Caledonia, Michigan 49316, USA](#)
[For Product information call 616-575-8693. www.gowatersolve.com](#)

1.4 Emergency telephone number

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

2.1 Classification of the substance or mixture

Classification according to paragraph (d) of Regulation 29 CFR 1910.1200.
Not classified.

2.2 Label elements

Labeling according to paragraph (f) of Regulation 29 CFR 1910.1200:
Hazard symbol(s): None
Signal word: None
Hazard statement(s): None
Precautionary statement(s): None

2.3 Other hazards

Spills produce extremely slippery surfaces.
For explanation of abbreviations see Section 16.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:

Not applicable, this product is a mixture.

3.2 Mixtures

Hazardous components:

Distillates (petroleum), hydrotreated light

Concentration/gamme: 20 – 30%
CAS Number: 64742-47-8
Classification according to paragraph (d)

of Regulation 29 CFR 1910.1200:

Asp. Tox. 1; H304

Notes:

Does not result in classification of the mixture if the kinematic viscosity is greater than 20.5 mm²/s measured at 40°C.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Concentration/gamme: < 5%

CAS Number: 69011-36-5

Classification according to paragraph (d)

of Regulation 29 CFR 1910.1200:

Acute Tox. 4; H302, Eye Dam. 1; H318

Notes

For explanation of abbreviations see Section 16.

4. **FIRST AID MEASURES**

4.1 Description of first aid measures

Inhalation:

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

Skin Contact:

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In case of persistent skin irritation, consult a physician.

Eye Contact:

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

Ingestion:

Rinse mouth with water. Do NOT induce vomiting. Call a physician or poison control center immediately.

4.2 Most important symptoms and effects, both acute and delayed

None under normal use.

4.3 Indication of any immediate medical attention and special treatment needed

None reasonably foreseeable.

Other information:

None

5. **FIRE FIGHTING MEASURES**

5.1 Extinguished media

Suitable extinguishing media:

Water, water spray, foam, carbon dioxide (CO₂), dry powder.

Warning! Spills produce extremely slippery surfaces.

Unsuitable extinguishing media:

None known

5.2 Special hazards arising from the substance or mixture:

Hazardous decomposition products:

Thermal decomposition may produce: hydrogen chloride gas, nitrogen oxides (NO_x), carbon oxides (CO_x). Ammonia (NH₃). Hydrogen chloride. Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

5.3 Advice for fire-fighters

Protective measures:

Wear self-contained breathing apparatus and protective suit.

Other information:

Spills produce extremely slippery surfaces.

6. **ACCIDENTAL RELEASE MEASURES**

6.1 Personal precautions, protective equipment and emergency procedures.

Personal precautions:

Do not touch or walk through spilled material. Spills produce extremely slippery surfaces.

Protective equipment:

Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection).

Emergency procedures: Keep people away from spill/leak. Prevent further leakage or spillage if safe to do so.

6.2 Environmental precautions:

As with all chemical products, do not flush into surface water.

6.3 Methods and material for containment and cleaning up

Small spills:

Do not flush with water. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Large spills:

Do not flush with water. Dam up. Soak up with inert absorbent material. Clean up promptly by scoop or vacuum.

Residues:

After cleaning, flush away traces with water.

6.4 Reference to other sections

Section 7: Handling and storage; Section 8: Exposure controls/personal protection; Section 13: Disposal considerations

7. **HANDLING AND STORAGE**

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Renders surfaces extremely slippery when spilled. When using do not smoke, drink or eat.

7.2 Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Freezing will affect the physical condition and may damage the material. Incompatible with oxidizing agents.

7.3 Specific end use(s)

This information is not available.

8. **EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1 Control parameters

Occupational exposure limits:

Distillates (petroleum), hydrotreated light

ACGIH: 200 mg/m³ (8-hours) (vapors)

8.2 Exposure controls

Appropriate engineering controls:

Ensure adequate ventilation, especially in confined areas. Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists.

Individual protection measures, such as personal protective equipment:

- a) Eye/face protection: safety glasses with side-shields.
- b) Skin protection:
 - i) Hand protection: PVC or other plastic material gloves.
 - ii) Other: Wear coveralls and/or chemical apron and rubber footwear where physical contact can occur.
- c) Respiratory protection: No personal respiratory protective equipment normally required.
- d) Additional advice: Wash hands before breaks and immediately after handling the product. Wash hands before breaks and at the end of workday. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls:

Do not allow uncontrolled discharge of product into the environment.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- a) Appearance: Viscous liquid, Milky
- b) Odor: Aliphatic
- c) odor threshold: No data available
- d) pH: Not applicable.
- e) Melting point/freezing point: < 5 °C
- f) Initial boiling point /boiling range: > 100 °C
- g) Flash point: Does not flash.
- h) Evaporation rate: No data available.
- i) Flammability (solid, gas): Not applicable
- j) Upper/lower flammability/explosive limits: Not expected to create explosive atmospheres.
- k) Vapor pressure: 2.3 kPa @ 20 °C
- l) Vapor density: 0.804 g/litre @ 20 °C
- m) Relative density: 1.0 – 1.2 (See Technical Bulletin or Product Specifications for a more precise value, if available)
- n) Solubility: Completely miscible
- o) Partition coefficient: Not applicable
- p) Autoignition temperature: Not applicable
- q) Decomposition temperature: >150 °C
- r) Viscosity: > 20.5 mm²/s @ 40 °C
- s) Explosive properties: Not expected to be explosive based on the chemical structure.
- t) Oxidizing properties: Not expected to be oxidizing based on the chemical structure.

9.2 Other information:

None.

10. STABILITY AND REACTIVITY

10.1 Reactivity:

Stable under recommended storage conditions.

10.2 Chemical Stability:

Stable under recommended storage conditions.

10.3 Possibility of Hazardous reactions:

Oxidizing agents may cause exothermic reactions.

10.4 Conditions to avoid:

Protect from frost, heat and sunlight.

10.5 Incompatible materials:

Oxidizing agents.

10.6 Hazardous decomposition products:

Thermal decomposition may produce: hydrogen chloride gas, nitrogen oxides (NO_x), carbon oxides (CO_x). Ammonia. Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Information on the product as supplied:

Acute Oral toxicity:	LD50/oral/rat > 5,000 mg/kg (Estimated)
Acute Dermal toxicity:	LD50/dermal/rat > 5,000 mg/kg (Estimated)
Acute Inhalation toxicity:	The product is not expected to be toxic by inhalation.
Skin corrosion/irritation:	Non-irritating to skin.
Serious Eye damage/irritation:	Not irritating. (OECD 437)
Respiratory/skin Sensitization:	Not sensitizing.
Mutagenicity:	Not mutagenic.
Carcinogenicity:	Not carcinogenic.
Reproductive Effects:	Not toxic for reproduction.
STOT - single exposure:	No known effects.
STOT - repeated exposure:	No known effect.
Aspiration hazard:	Due to the viscosity, this product does not present an aspiration hazard.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute Oral Toxicity:	LD50/oral/rat > 5000 mg/kg (OECD 401)
Acute Dermal Toxicity:	LD50/dermal/rabbit > 5000 mg/kg (OECD 402)
Acute Inhalation Toxicity:	LC0/inhalation/4 h/rat ≥ 4951 mg/m ³ (OECD 403) (Based on results obtained from tests on analogous products)
Skin corrosion/irritation:	Not irritating. (OECD 404). Repeated exposure may cause skin dryness or cracking.
Serious Eye damage/irritation:	Not irritating (OECD 405).
Respiratory/skin Sensitization:	By analogy with similar products, this product is not expected to be sensitizing. (OECD 406).
Mutagenicity:	Not mutagenic. (OECD 471,473,474,476,478,479).
Carcinogenicity:	Carcinogenicity study in rats (OECD 451): Negative
Reproductive toxicity:	By analogy with similar substances, this substance is not expected to be toxic for reproduction. NOAEL/rat=300 ppm (OECD 421).
STOT - single exposure:	No known effects.
STOT - repeated exposure:	Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/90 days ≥ 3000 mg/kg/day (OECD 408) (Based on results obtained from tests on analogous products).
Aspiration hazard:	May be fatal if swallowed and enters airways.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute Oral Toxicity:	LD50/oral/rat = 500 - 2000 mg/kg
Acute Dermal Toxicity:	LD50/dermal/rabbit > 2000 mg/kg

Acute Inhalation Toxicity:	No data available.
Skin Corrosion/Irritation:	Not irritating. (OECD 404)
Serious eye damage/irritation:	Causes serious eye irritation. (OECD 405)
Respiratory/skin Sensitization:	The results of testing on guinea pigs showed this material to be non-sensitizing.
Mutagenicity:	In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects.
Carcinogenicity:	Based on the absence of mutagenicity, it is unlikely that the substance is carcinogenic.
Reproductive toxicity:	Based on available data, product is not expected to be toxic for reproduction. Two-Generation Reproduction Toxicity (OECD 416) -NOAEL/rat >250 mg/kg/day Prenatal Development Toxicity Study (OECD 414) -NOAEL/Maternal toxicity/rat >50 mg/kg/day -NOAEL/Developmental toxicity/rat > 50 mg/kg/day
STOT – single exposure:	No known effects.
STOT – repeated exposure:	Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/600 days = 50 mg/kg/day
Aspiration hazard:	No known effects.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Information on the product as supplied:

Acute toxicity to Fish:	LC50/Fish/96 hours = 10 - 100 mg/L (Estimated)
Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours = 10 - 100 mg/L (Estimated)
Acute Toxicity to Algae:	Algal inhibitions tests are not appropriate. The flocculation characteristics of the product interfere directly in the test medium preventing homogenous distribution which invalidates the test.
Chronic toxicity to fish:	No data available
Chronic toxicity to invertebrates:	No data available
Toxicity to microorganisms:	No data available
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Acute Toxicity to Fish:	LC0/Oncorhynchus mykiss/96 hr. > 1000 mg/L (OECD 203)
Acute Toxicity to invertebrates:	EC0/Daphnia magna/48 hr > 1000 mg/L (OECD 202)
Acute Toxicity to Algae:	IC0/Pseudokirchneriella subcapitata/ 72 hr. > 1000 mg/L (OECD 201)
Chronic toxicity to fish:	NOEC/Oncorhynchus mykiss/28 days >1000mg/l
Chronic toxicity to invertebrates:	NOEC/Daphnia magna/21 days >1000 mg/l
Toxicity to microorganisms:	EC50/Tetrahymena pyriformis/48 h >1000 mg/l
Effects on terrestrial organisms:	No data available
Sediment toxicity:	No data available. Readily biodegradable, exposure to sediment is unlikely.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute Toxicity to Fish:	LC50/Cyprinus carpio/96 hr. = 1 - 10 mg/L (OECD 203)
Acute Toxicity to invertebrates:	EC50/Daphnia/48 hr = 1 - 10 mg/L (OECD 202)
Acute Toxicity to Algae:	IC50/Desmodesmus subspicatus/72 hr = 1 - 10 mg/L (OECD 201)
Chronic toxicity to fish:	No data available
Chronic toxicity to invertebrates:	NOEC/Daphnia magna/21 days > 1 mg/L (OECD 202)
Toxicity to microorganisms:	EC10/activated sludge/17 hours > 10000 mg/L (DIN 38412-8)

Effects on terrestrial organisms: No data available
Sediment toxicity: No data available.

12.2 Persistence and degradability

Information on the product as supplied:

Degradation: Based on degradation data of components, this product is expected to be readily (bio)degradable.
Hydrolysis: At natural pHs (>6) the polymer degrades due to hydrolysis to more than 70% in 28 days. The hydrolysis products are not harmful to aquatic organisms.
Photolysis: No data available

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Degradation: Readily biodegradable. 67.6% /28 days (OECD 301 F); 68.8% /28 days (OECD 306); 61.2% /61 days (OECD 304 A)
Hydrolysis: Does not hydrolyse.
Photolysis: No data available

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Degradation: Readily biodegradable. > 60% /28 days (OECD 301 B)
Hydrolysis: Does not hydrolyse.
Photolysis: No data available

12.3 Bioaccumulative potential

Information on the product as supplied:

The product is not expected to bioaccumulate.
Partition co-efficient (LogPow): Not applicable
Bioconcentration factor (BCF): No data available

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Partition co-efficient (LogPow): 3 - 6
Bioconcentration factor (BCF): No data available

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Partition co-efficient (LogPow): >3
Bioconcentration factor (BCF): No data available

12.4 Mobility in soil

Information on the product as supplied:

No data available

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light:

Koc: No data available

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched:

Koc: >5000

12.5 Other adverse effects:

none known

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste from residues /unused products:

Dispose in accordance with local and national regulations.

Contaminated packaging:

Rinse empty containers with water and use the rinse-water to prepare the working solution. If recycling is not practicable, dispose of in compliance with local regulations. Can be landfilled or incinerated, when in compliance with local regulations.

Recycling:

Store containers and offer for recycling of material when in accordance with the local regulations.

14. TRANSPORT INFORMATION

Land Transport (DOT) Not classified.

Sea Transport (IMDG) Not classified.

Air Transport (IATA) Not classified.

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for substances or mixture

Information on the product as supplied:

TSCA Chemical Substances Inventory:

All components of this product are either listed as active on the inventory or are exempt from listings.

US SARA Reporting requirements:

SARA (SECTION 311/312) hazard class:

Not concerned

SARA Title III Sections:

Section 302 (TPQ)-Reportable Quantity:

Not concerned

Section 304- Reportable Quantity:

Not concerned

Section 313 (De minimis concentration):

Not concerned

Clean Water Act

Section 311 Hazardous Substances (40 CFR 117.3)- Reportable Quantity:

Not concerned

Clean Air Act

Section 112(r) Accidental release prevention requirements (40 CFR 68)-Reportable Quantity:

Not concerned

CERCLA

Hazardous Substances List (40 CFR 302.4)-Reportable Quantity:

Not concerned

RCRA Status:

Not RCRA hazardous.

California Proposition 65 Information:

WARNING! This product contains a chemical known to the state of California to cause cancer and birth defects or other reproductive harm, Acrylamide.

16. **OTHER INFORMATION**

HMIS & NFPA Rating

NFPA:

Health: 0
Flammability: 1
Instability: 0

HMIS:

Health: 0
Flammability: 1
Physical Hazard: 0
PPE Code: B

Key or legend to abbreviations and acronyms used in the safety data sheet:

Acronyms

STOT= Specific target organ toxicity

Abbreviations

Acute Tox. 4= Acute toxicity Category Code 4

Asp. Tox. 1=Aspiration hazard Category Code 1

Eye Dam 1 = Serious eye damage/eye irritation Category Code 1

H-Phrases

H302-Harmful if swallowed

H304-May be fatal if swallowed and enters airways

H318-Causes serious eye damage

Training advice:

Do not handle until all safety precautions have been read and understood.

This SDS was prepared in accordance with the following:

U. S. Code of Federal Regulation 29 CFR 1910.1200

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 information 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