



## Solve 211C

### Safety Data Sheet

Date Issued: 05/10/2019

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

PRODUCT NAME: **SOLVE 211C**  
TYPE OF PRODUCT: Mixture  
IDENTIFIED USES: Processing aid for industrial applications  
USES ADVISED AGAINST: None.  
COMPANY: WaterSolve, LLC, 5031 68<sup>TH</sup> Street Caledonia, Michigan 49316, USA  
For Product information call 616-575-8693. [www.gowatersolve.com](http://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

##### 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

This product is a mixture.

##### 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 mm<sup>2</sup>/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

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 and thoroughly 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 (CO<sub>2</sub>), dry powder.

Warning! Spills produce extremely slippery surfaces.

**Unsuitable extinguishing media:** None

**5.2 Special hazards arising from the substance or mixture:**

**Hazardous decomposition products:**

Ammonia, carbon oxides (COx), nitrogen oxides (NOx), 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.

**6.2 Environmental precautions:** Do not contaminate 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. Clean up promptly by scoop or vacuum.

**Residues:** Soak up with inert absorbent material. 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 uses

None.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Occupational exposure limits:

Distillates (petroleum), hydrotreated light

ACGIH: 200mg/m<sup>3</sup> (8-hour)

### 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:**
  - a. Wear coveralls and/or chemical apron and rubber footwear where physical contact can occur.
  - b. **Hand protection:** PVC or other plastic material gloves.
- c) **Respiratory protection:** No personal respiratory protective equipment normally required.
- d) **Additional advice:** Wash hands and face before breaks and immediately after handling the product. Wash hands before breaks and at the end of workday.

**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:	3.5 – 6.5 @ 5 g/L
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
n) Solubility:	Completely miscible
o) Partition coefficient:	Not applicable
p) Autoignition temperature:	Not applicable
q) Decomposition temperature:	> 150 °C
r) Viscosity:	> 20.5 mm <sup>2</sup> /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:** Product is 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<sub>x</sub>), carbon oxides (CO<sub>x</sub>), ammonia, hydrogen cyanide (hydrocyanic acid).

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
Acute Dermal toxicity:	LD50/dermal/rat > 5,000 mg/kg
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.

<b>Mutagenicity:</b>	Not mutagenic.
<b>Carcinogenicity:</b>	Not carcinogenic.
<b>Reproductive Effects:</b>	Not toxic for reproduction.
<b>STOT - single exposure:</b>	No known effects.
<b>STOT - repeated exposure:</b>	No known effects.
<b>Aspiration hazard:</b>	Due to the viscosity, this product does not present an aspiration hazard.

**Relevant information on the hazardous components:**

**Distillates (petroleum), hydrotreated light**

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

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

<b>Acute Oral Toxicity:</b>	LD50/oral/rat = 500 - 2000 mg/kg
<b>Acute Dermal Toxicity:</b>	LD50/dermal/rabbit > 2000 mg/kg
<b>Acute Inhalation Toxicity:</b>	No data available.
<b>Skin Corrosion/Irritation:</b>	Not irritating. (OECD 404)
<b>Serious eye damage/irritation:</b>	Causes serious eye irritation. (OECD 405)
<b>Respiratory/skin Sensitization:</b>	The results of testing on guinea pigs showed this material to be non-sensitizing.
<b>Mutagenicity:</b>	In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects.
<b>Carcinogenicity:</b>	Based on the absence of mutagenicity, it is unlikely that the substance is carcinogenic.
<b>Reproductive toxicity:</b>	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
<b>STOT – single exposure:</b>	No known effects.
<b>STOT – repeated exposure:</b>	NOAEL/oral/rat/600 days = 50 mg/kg/day
<b>Aspiration hazard:</b>	No known effects.

12. **ECOLOGICAL INFORMATION**

12.1 **Toxicity**

**Information on the product as supplied:**

<b>Acute toxicity to Fish:</b>	LC50/Fish/96 hours = 10 - 100 mg/L (Estimated)
<b>Acute toxicity to invertebrates:</b>	EC50/Daphnia/48 hours= 10 - 100 mg/L (Estimated)

<b>Acute Toxicity to Algae:</b>	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.
<b>Chronic toxicity to fish:</b>	No data available
<b>Chronic toxicity to invertebrates:</b>	No data available
<b>Toxicity to microorganisms:</b>	No data available
<b>Effects on terrestrial organisms:</b>	No data available. Readily biodegradable, exposure to soil is unlikely.
<b>Sediment toxicity:</b>	No data available. Readily biodegradable, exposure to sediment is unlikely.

**Relevant information on the hazardous components:**

**Distillates (petroleum), hydrotreated light**

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

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

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

**12.2 Persistence and degradability**

**Information on the product as supplied:**

<b>Degradation:</b>	Readily biodegradable.
<b>Hydrolysis:</b>	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.
<b>Photolysis:</b>	No data available

**Relevant information on the hazardous components:**

**Distillates (petroleum), hydrotreated light**

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

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

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

**12.3 Bioaccumulative potential**

**Information on the product as supplied:**

The product is not expected to bioaccumulate.

<b>Partition co-efficient LogPow:</b>	Not applicable
<b>Bioconcentration factor (BCF):</b>	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:**

**12.6**none

**13. DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods**

**Waste from residues /unused products:** Dispose of 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.

**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 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 Ratings**

**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

Hazard statements

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

### **OTHER INFORMATION**

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