



Solve 311

Safety Data Sheet

Date Issued: 06/19/2018

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Identifier

PRODUCT NAME: **SOLVE 311**

PRODUCT TYPE: 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:

This product is a mixture.

Hazardous components:

Contains no reportable hazardous substances.

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. Alternatively, rinse immediately with Diphoterine ®. Get prompt medical attention.

Ingestion: Rinse mouth with water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.

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.

5.2 Special hazards arising from the substance or mixture:

Hazardous decomposition products:

Carbon oxides (CO_x). Nitrogen oxides (NO_x). 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: Will not burn until water is evaporated. 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: 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.

7.3 Specific end uses

This information is not available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure limits:

None known.

Appropriate engineering controls:

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 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:** Clear to slightly yellow liquid
- b) **Odor:** None
- c) **Odor threshold:** Not applicable
- d) **pH:** 4 - 8
- e) **Melting point/freezing point:** < 0 °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:	< 0
p) Autoignition temperature:	Does not self-ignite (based on the chemical structure).
q) Decomposition temperature:	>150 °C
r) Viscosity:	See Technical Bulletin
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: None known.

10.4 Conditions to avoid: Protect from frost, heat and sunlight.

10.5 Incompatible materials: None known.

10.6 Hazardous decomposition products: Thermal decomposition may produce: hydrogen chloride gas, nitrogen oxides (NO_x), carbon oxides (CO_x). 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
Acute Dermal toxicity:	LD50/dermal/rat > 5,000 mg/kg
Acute Inhalation toxicity:	Testing by the inhalation route is inappropriate because exposure of humans via inhalation is unlikely: the substance has no vapor pressure and there is practically no exposure to inhalable aerosols.
Skin corrosion/irritation:	Not irritating.
Serious Eye damage/ irritation:	Slightly irritating.
Respiratory/skin Sensitization:	Not sensitizing to skin. No respiratory sensitization has been observed in the workplace.
Mutagenicity:	Not mutagenic.
Carcinogenicity:	By analogy with similar products, this product is not expected to be carcinogenic.
Reproductive Effects:	By analogy with similar products, this product is not expected to be toxic for reproduction.
STOT - single exposure:	No known effects.
STOT - repeated exposure:	No known effect.
Aspiration hazard:	No hazards resulting from the material as supplied.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Information on the product as supplied:

Acute toxicity to fish: LC50/Danio rerio/96 hrs. = 10 -100 mg/L
Acute toxicity to invertebrates: EC50/Daphnia magna/48 hours = 10 -100 mg/L
Acute toxicity to Algae: Algae inhibition 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: EC0/activated sludge/0.5 h= 1000 mg/L (OECD 209)
Effects on terrestrial organisms: Exposure to soil is unlikely.
Sediment toxicity: Exposure to sediment is unlikely.

12.2 Persistence and degradability

Information on the product as supplied:

Degradation: Not readily biodegradable.
Hydrolysis: Does not hydrolyse.
Photolysis: No data available

12.3 Bioaccumulative potential

Information on the product as supplied:

Not bioaccumulating.
Partition co-efficient (Log Pow): < 0
Bioconcentration factor (BCF): ~0

12.4 Mobility in soil

Information on the product as supplied:

Exposure to soil is not to be expected.
Koc: ~0

12.5 Other adverse effects:

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:

Not concerned.

16. OTHER INFORMATION

HMIS & NFPA Ratings

NFPA:

Health:	0
Flammability:	0
Instability:	0

HMIS:

Health:	0
Flammability:	0
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

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 Regulations 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 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