



## Solve 411G

### Safety Data Sheet

Date Issued: 01/01/2016

Date Revised: 01/01/2016

#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SOLVE 411G

COMPANY: WaterSolve, 5031 68<sup>th</sup> Street SE, Caledonia, MI 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)

#### Relevant identified uses of the substance or mixture and uses advised against:

Use of the substance/mixture: Deodorant

#### 2. HAZARDS IDENTIFICATION

##### 2.1 Classification of the substance or mixture

##### GHS-US classification

Not classified

##### 2.2 Label elements

GHS-US labeling: No labeling applicable

##### 2.3 Other hazards

Other hazards not contributing to the classification: None under normal conditions.

2.4 Unknown acute toxicity (GHS-US): Not applicable

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

##### 3.1 Substance

Not applicable

##### 3.2 Mixture

Name	Product Identifier	%	GHS-US Classification
Diethylene glycol monoethyl ether	CAS No. 111-90-0	.25 ó 1.25	Acute Tox. 4 (Oral), H302
10% *MIXED ALDEHYDES IN BENZYL BENZOATE		.25 ó 1.25	Flamm. Liq. 4 H227 Acute Tox. 4 (Oral), H302
Benzyl benzoate	CAS No. 120-51-4	.25 ó 1.25	Acute Tox. 4 (Oral), H302

Full text of H-statements: see Section 16

#### 4. FIRST AID MEASURES

##### 4.1 Description of first aid measures

**First-aid measures general:** If exposed or concerned: Get medical advice/attention.

**First-aid measures after inhalation:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.

**First-aid measures after skin contact:** Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash contaminated clothing before reuse.

**First aid measures after eye contact: IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persist.

**First-aid measures after ingestion: DO NOT** induce vomiting. Drink plenty of water. Call a POISON CENTER or doctor/physician if you feel unwell.

##### 4.2 Most important symptoms and effects, both acute and delayed.

**Symptoms/injuries:** Not expected to present a significant hazard under anticipated conditions of normal use.

**Symptoms/injuries after inhalation:** None under normal use.

**Symptoms/injuries after skin contact:** Contact during a long period may cause slight irritation.

**Symptoms/injuries after eye contact:** Direct contact with the eyes is likely to be irritating.

**Chronic symptoms:** None known.

#### **4.3 Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

## **5. FIRE FIGHTING MEASURES**

### **5.1 Extinguishing media**

**Suitable extinguishing media:** Carbon dioxide, dry powder, foam DO NOT use heavy water stream.

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

**Explosion hazard:** Not explosive.

**Reactivity:** Product is not explosive.

### **5.3 Advice for firefighters**

**Firefighting instructions:** Move containers from fire area if it can be done without risk.

**Protection during firefighting:** Do not attempt to take action without suitable protective equipment.

## **6. ACCIDENTAL RELEASE MEASURES**

### **6.1 Personal Precautions, protective equipment and emergency procedures**

General measures: Remove ignition sources.

#### **6.1.1 For non-emergency personnel**

No additional information available

#### **6.1.2 For emergency responders**

Protective equipment: Do not attempt to take action without suitable protective equipment.

**6.2 Environmental precautions:** Avoid release to the environment.

**6.3 Methods and material for containment and cleaning up:** For containment: Collect spillage

Methods for cleaning up: On land, sweep or shovel into original containers. This material and its container must be disposed of in a safe way, and as per local legislation.

**6.4 Reference to other sections:** No additional information available

## **7. HANDLING AND STORAGE**

### **7.1 Precautions for safe handling**

**Additional hazards when processed:** None known.

**Precautions for safe handling:** Do not eat, drink or smoke when using this product. Do not get in eyes, on skin, or on clothing. Ensure good ventilation of the work station. Keep away from sources of ignition- No smoking. Use personal protective equipment as required. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

**Hygiene measures:** Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Use personal protective equipment as required. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

### **7.2 Conditions for safe storage, including any incompatibilities**

**Technical measures:** Comply with applicable regulations.

**Storage conditions:** Keep container closed when not in use. Keep only in the original container in a cool, well ventilated place away from: Direct sunlight. Protect from moisture.

**Incompatible products:** Oxidizing agents.

**Incompatible materials:** Direct sunlight. Heat sources. Sources of ignition.

**Maximum storage period:** 2 year may darken with age

**Storage area:** Store away from heat. Store in a well-ventilated place.

**Special rules on packaging:** Keep only in original container.

**Packaging materials:** Do not store in corrodible metal.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

<b>Benzyl benzoate (120-51-4)</b>		
Not applicable		
<b>10% *MIXED ALDEHYDES IN BENZYL BENZOATE</b>		
Not applicable		
<b>Diethylene glycol monoethyl ether (111-90-0)</b>		
AIHA	WEEL TWA (ppm)	25ppm

### 8.2 Exposure controls

**Appropriate engineering controls:** Ensure good ventilation of the work station.

**Personal protective equipment:** Glove, safety glasses, Protective goggles. Dust mask.

**Materials for protective clothing:**

Wear long sleeves and pants. Immediately remove contaminated clothing and launder before reuse.

**Hand protection:** Wear chemically resistant protective gloves.

**Eye protection:** Chemical goggles or safety glasses.

**Skin and body protection:** Wear suitable protective clothing.

**Respiratory protection:** Dust mask

**Thermal hazard protection:** None necessary.

**Environmental exposure controls:** Avoid release into the environment.

**Other information:** Do not eat, drink or smoke when using this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Physical state:	Solid
Appearance:	Granular
Color:	Gray to tan, (or red)
Odor:	Fresh & Clean
Odor threshold:	No data available
pH:	No data available
Melting point:	No data available
Freezing point:	No data available
Boiling point:	No data available
Flash point:	> 93.33°C
Relative evaporation rate (butylacetate=1):	No data available
Flammability (solid, gas):	No data available
Explosive limits:	No data available
Explosive properties:	Product is no explosive.
Oxidizing properties:	No data available
Vapor pressure:	No data available
Relative density:	No data available
Relative vapor density at 20°C:	No data available
Low Pow:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available
Viscosity kinematic:	No data available
Viscosity dynamic:	No data available
Solubility:	N/A

Water: Solubility in water of component (s) of the mixture:

- Benzyl benzoate: 15.3 mg/l (at 20°C) Camphene: 4.2 mg/l (at 20°C)
- Isobornyl acetate: < 1 g/l (at 20°C) Vanillin: 10 g/l (at 25°C)
- Benzyl acetate: < 1 g/l (at 23°C) Cinnamaldehyde: 1.4 g/l (at 18°C)
- Geeraniol: 686 mg/l (at 20°C) Hexanal, 3,5,5-trimethyl-: <0.1 g/l (at 20°C)
- Linalool: 1.45 g/l (at 25°C) Thymol: 1.4 g/l (at 40°C)

**9.2 Other information:** No additional information available.

**10. STABILITY AND REACTIVITY**

- 10.1 **Reactivity:** Product is not explosive  
 10.2 **Chemical stability:** Stable.  
 10.3 **Possibility of hazardous reactions:** Hazardous polymerization will not occur.  
 10.4 **Conditions to avoid:** Direct sunlight. Heat. Sparks. Open flame.  
 10.5 **Incompatible materials:** Oxidizing agents.  
 10.6 **Hazardous decomposition products:** Thermal decomposition generates: carbon dioxide, carbon monoxide, smoke. Fullers earth, amorphous silica and Bentonite.

**11. TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**

**Likely routes of exposure:** Skin and eye contact

**Acute toxicity:** Not classified

<b>Diethylene glycol monoethyl ether (111-90-0)</b>	
LD50 oral rat	1920 mg/kg
LC50 inhalation rat (mg/l)	> 5240 mg/m <sup>3</sup> (exposure time: 4h)
ATE US (oral)	1920.000 mg/kg bodyweight
<b>Benzyl benzoate (120-51-4)</b>	
LD50 oral rat	500 mg/kg
LD50 dermal rabbit	4000 mg/kg
ATE US (oral)	500.000 mg/kg bodyweight
ATE US (dermal)	4000.000 mg/kg bodyweight
<b>10% *MIXED ALDEHYDES IN BENZYL BENZOATE</b>	
ATE US (oral)	555.556 mg/kg bodyweight

- Skin corrosion/irritation:** Not classified  
**Serious eye damage/irritation:** Not classified  
**Respiratory or skin sensitization:** Not classified  
**Germ cell mutagenicity:** Not classified  
**Carcinogenicity:** Not classified  
**Reproductive toxicity:** Not classified  
**Specific target organ toxicity (single exposure):** Not classified  
**Specific target organ toxicity (repeated exposure):** Not classified  
**Aspiration hazard :** Not classified  
**Symptoms/injuries after Inhalation:** None under normal use.  
**Symptoms/injuries after skin contact:** Contact during a long period may cause slight irritation.  
**Symptoms/injuries after eye contact:** Direct contact with the eyes is likely to be irritating.  
**Chronic symptoms:** None known.  
**Other information:** Likely routes of exposure: skin and eyes

**12. ECOLOGICAL INFORMATION**

**12.1 Toxicity:**

<b>Diethylene glycol monoethyl ether (111-90-0)</b>	
LC50 fish 1	10000 mg/l (Exposure time: 96h- Species: Lepomis macrochirus (static))
EC50 Daphnia 1	4305 mg/l (Exposure time: 48h- Species: Daphnia magna)
LC50 fish 2	21500 mg/l (Exposure time: 96h- Species: Lepomis macrochirus flow-through)

**12.2 Persistence and degradability:** No additional information available

**12.3 Bioaccumulative potential:**

<b>Diethylene glycol monoethyl ether (111-90-0)</b>	
Log Pow	-0.8

**12.4 Mobility in soil:** No additional information available

**12.5 Other adverse effects:**

Effect on the global warming: No known ecological damage caused by this product.

**13. DISPOSAL CONSIDERATIONS**

**Waste disposal recommendations:**

Dispose in a safe manner in accordance with local/state/national and international regulations.

**14. TRANSPORT INFORMATION**

**Department of Transportation**

**In accordance with DOT:** Not regulated for transport

**TDG:** No additional information available

**TRANSPORT BY SEA:** No additional information available

**AIR TRANSPORT:** No additional information available

**15. REGULATORY INFORMATION**

**15.1 US Federal regulations**

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

This product of mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR 372.38(a) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

**15.2 International regulations**

**CANADA**

<b>Diethylene glycol monoethyl ether (111-90-0)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 3- Combustible Liquid Class D Division 2- Subdivision B-Toxic Material causing other toxic effects
<b>Benzyl benzoate (120-51-4)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class D Division 2- Subdivision B-Toxic Material causing other toxic effects

**EU-Regulations**

<b>Diethylene glycol monoethyl ether (111-90-0)</b>
Listed on the EEC Inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
<b>Benzyl benzoate (120-51-4)</b>
Listed on the EEC Inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

**National Regulations**

**Diethylene glycol monoethyl ether (111-90-0)**

Listed on the AICS (Australian Inventory of Chemical Substances) AICS.

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the Japanese (ENCS) (Existing & New Chemical Substances) Inventory

Listed on the Korean ECL (Existing Chemicals List)

Listed on the NZIoC (New Zealand Inventory of Chemical Substances)

Listed on the PICCS (Philippines inventory of Chemicals and Chemicals Substances)

Listed on the Canadian IDL (Ingredient Disclosure List)

Listed on INSQ (Mexican national Inventory of Chemical Substances)

Listed on Turkish Inventory of Chemical

**Benzyl benzoate (120-51-4)**

Listed on the AICS (Australian Inventory of Chemical Substances) AICS.  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the Japanese (ENCS) (Existing & New Chemical Substances) Inventory  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on the NZIoC (New Zealand Inventory of Chemical Substances)  
Listed on the PICCS (Philippines inventory of Chemicals and Chemicals Substances)  
Listed on the Canadian IDL (Ingredient Disclosure List)  
Listed on INSQ (Mexican national Inventory of Chemical Substances)  
Listed on Turkish Inventory of Chemical

**15.3 US State regulations**

**California Proposition 65**-This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm.

**16. OTHER INFORMATION**

Revision date: 01/01/2016

**Full text of H-statements:** H302 Harmful if swallowed

**HMIS III RATING**

**Health:** 1 Slight Hazard-irritation or minor reversible injury possible.

**Flammability:** 1 Slight Hazard: Materials that must be preheated before ignition will occur. Includes liquids, solids and semi-solids having a flash point above 200°F (Class IIIB)

**Physical:** 0 Minimal Hazard-Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

**Personal Protection:** E

E-Safety glasses. Gloves. Dust mask

SDS US (GHS HazCom 2012)

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. 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  
LC<sub>xx</sub>: Lethal Concentration, for xx percent of test population  
LD<sub>xx</sub>: Lethal Dose, for xx percent of test population  
IC<sub>xx</sub>: Inhibitory Concentration for xx of a substance  
EC<sub>xx</sub>: 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