

## Solve 412-OC

### Safety Data Sheet

Date Issued: 04/20/2016

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#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SOLVE 412-OC

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

Flammable liquids Category 3 H226

Acute toxicity (oral) Category 4 H302

Full text of H statements in Section 16.

##### 2.2 Label elements

##### GHS-US labeling:



Signal word (GHS-US):

##### Warning

Hazard statements (GHS-US):

H226- Flammable liquid and vapor

H302- Harmful if swallowed

Precautionary Statements (GHS-US):

P210-Keep away from heat, open flames, sparks. No smoking

P233- Keep container tightly closed

P240-Ground/bond container tightly closed

P241- Use explosion-proof electrical, lighting, ventilating equipment

P242-Use only non-sparking tools

P243-Take precautionary measures against static discharge

P264-Wash Hands, forearms and face thoroughly after handling

P270-Do not eat, drink or smoke when using this product

P280-Wear eye protection protective clothing, protective gloves.

P303+P312- If swallowed: Call a POISON CENTER if you feel unwell

P303+P361+P353- If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with Water/shower.

P330-Rinse mouth

P370+P378-In case of fire: Use carbon dioxide (CO<sub>2</sub>), dry extinguishing powder, foam to extinguish

P403+P235-Store in a well-ventilated place. Keep cool.

P501-Dispose of contents/container to an approved waste disposal plant.

### 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
Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)- omega-hydroxy-,branched	(CAS No. 127087-87-0)	72.75-74.25	Acute Tox. 4 (Oral), H302

Full text of H-statements in 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. Get immediate medical attention,

### 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.

### 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: Eliminate 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:** Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. 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

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.

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

Poly(oxy-1,2-ethanediyl, alpha.-(4-nonylphenyl)-.omega-hydroxy-, branched (127087-87-0): Not applicable

### 8.2 Exposure controls

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

**Personal protective equipment:** Gloves. Protective goggles.

#### 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:** None generally required.

**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:	Liquid
Appearance:	CLEAR LIQUID
Color:	Orange
Odor:	Citrus orange
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:	46.11 °C closed cup
Relative evaporation rate (butyl acetate=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:	948.7 g/L
Relative vapor density at 20°C:	No data available
Solubility:	Water Dispersible
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

**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.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Likely routes of exposure: Skin and eye contact

Acute toxicity: Oral: Harmful if swallowed

#### Orange 2788-F, WS

ATE US (oral) 1764.310 mg/kg body weight

#### Poly(oxy-1,2-ethanediyl, alpha.-(4-nonylphenyl)-.omega-hydroxy-, branched (127087-87-0):

LD50 oral rat 1310 mg/kg

ATE US (oral) 1310.000 mg/kg body weight

**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:** No additional information available.  
**12.2 Persistence and degradability:** No additional information available.  
**12.3 Bioaccumulative potential:** No additional information available.  
**12.4 Mobility in soil:** No additional information available.  
**12.5 Other adverse effects:**  
Effects 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 (DOT):**

**In accordance with DOT**

**Transport document description:** UN1993 Flammable liquids, n.o.s.  
(Contains: Orange oil), 3 III  
**UN-No. (DOT):** UN1993  
**Proper Shipping Name (DOT):** Flammable liquids, n.o.s.  
Contains: Orange oil  
**Class (DOT):** 3- Class 3 6 Flammable and combustible liquid  
49 CFR 173.120  
**Hazard Labels (DOT):** 3- Flammable liquid



**Packing Group (DOT):** III- Minor Danger  
**DOT Packing Non Bulk (49 CFR 173.120):** 203  
**DOT Packing Bulk (49 CFR 173.120):** 242  
**DOT Symbols:** G 6 Identifies PSN requiring a technical name  
**DOT Special Provisions (49 CFR 172.102):**  
**B1-** If the material has a flash point at or above 38°C (100 °F) and below 93°C (200°F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38°C (100 °F) and below 93°C (200°F), then the bulk packaging requirements of 173.241 of this subchapter are applicable.  
**B52-** Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks  
**IB3-** Authorized IBCs: Metal (31A, 31B, 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1, 31HA2, 31HAB2, 31HN2, 31HD2, 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50°C (1.1 bar at 122°F), or 130 kPa at 55°C (1.3 bar at 131°F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN 2672)  
**T4-** 2.64 178.274 (d) (2) Normal í í í ..178.275 (d) (3)

**TP1-** The maximum degree of filling must not exceed the degree of filling determined by the following:  
Degree of filling =  $97/1 + a$  (tr-tf) Where: tr is the maximum mean bulk temperature during transport, and if it is the temperature in degrees Celsius of the liquid during filling

**TP29-** A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP

**DOT Packaging Exceptions (49 CFR 173.xxx):** 150

**DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27):** 60L

**DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75):** 220L

**DOT Vessel Stowage Location:** A- The material may be stowed on deck or under deck on a cargo vessel and on a passenger vessel

**Other information:** No supplementary information available.

#### **TDG**

**Transport document description:** UN1993 FLAMMABLE LIQUID, N.O.S., 3, III

**UN-No. (TDG):** UN1993

**TDG Proper Shipping Name:** FLAMMABLE LIQUID, N.O.S.

**TDG Primary Hazard Classes:** 3 ó Class 3 ó Flammable liquids

**Packing Group:** III ó Minor Danger

**TDG Special Provisions:** 16 ó 1) The technical name of the most dangerous substance related to the primary class must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5 (1) (c)(i)(A) of Part 3, Documentation. The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11 (2) and (3) or Part 4, Dangerous Goods Safety Marks.

2) Subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical: a) UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S.; B) UN1851, MEDICINE, LIQUID, TOXIC, N.O.S.; c) UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S.; d) UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S.; or e) UN3249, MEDICINE, SOLID, TOXIC, N.O.S. An example in Canada is the :Food and Drugs Act, 150- An emergency response assistance plan (ERAP) is required for these dangerous goods under subsection 7.1 (6) or Part 7 (Emergency Response Assistance Plan), SOR/2015-100 UN1170, UN1202, UN1203, UN1267, UN1268, UN1863, UN1987, UN1993, UN3295, UN3475, UN3494 SOT/2015-100

**Explosive Limit and Limited Quantity Index:** 5 L

**Passenger Carrying Road Vehicle or Passenger**

**Carrying Railway Vehicle Index:** 60 L

#### **TRANSPORT BY SEA**

**UN-No. (IMDG):** 1993

**Proper Shipping Name (IATA):** FLAMMABLE LIQUID, N.O.S.

**Class (IMDG):** 3 ó Flammable liquids

**Packing Group (IMDG):** III-substances presenting low danger

#### **AIR TRANSPORT**

**UN-No. (IATA):** 1993

**Proper Shipping Name (IATA):** Flammable liquid, n.o.s.

**Class (IATA):** 3 ó Flammable liquids

**Packing Group (IATA):** III ó Minor Danger

## 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

Poly(oxy-1,2-ethanediyl, alpha-(4-nonylphenyl)-.omega-hydroxy-, branched (127087-87-0):

List on the Canadian DSL (Domestic Substance List)

#### EU-Regulations

Poly(oxy-1,2-ethanediyl, alpha-(4-nonylphenyl)-.omega-hydroxy-, branched (127087-87-0):

Listed on the EU NLP (No Longer Polymers) inventory

#### National Regulations

AUSTR: Listed on the inventory, or in compliance with the inventory.

NZIOC: List on the inventory, or in compliance with the inventory.

ENCS: Listed on the inventory, or in compliance with the inventory.

KECL: Listed on the inventory, or in compliance with the inventory.

PHIL: Listed on the inventory, or in compliance with the inventory.

NZLoc: Listed on the inventory, or in compliance with the inventory.

Japanese Pollutant Release and Transfer Register Law (PRTR Law)

Listed on CICR (Turkish Inventory and Control of Chemicals)

#### Inventories:

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

### 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: 04/20/2016

Full text of H-statements:

H226: flammable liquid and vapor

H302: Harmful if swallowed

#### HMIS III RATING

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

**Flammability:** 2 Moderate Hazard: Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100°F but below 200°F. (Classes II & IIIA)

**Physical:** ) 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:** B

B-Safety glasses. Gloves.

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