

## **SAFETY DATA SHEETS**

**This SDS packet was issued with item:**

076036503

**The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).**

076036511

## Safety Data Sheet

### Section 1 - Chemical Product and Company Identification

**Product Name:** Orange Solvent

**Company Identification:**

Reliance Dental Mfg., LLC.

5805 W. 117<sup>th</sup> Place

Alsip, IL 60803

**For Product Information, call:** 708-597-6694 **For Medical Information, call:** 800-535-5053

### Section 2 - Hazards Identification

**Classification of the substance or mixture**

**Hazard Class – Physical, Health, environmental**

Skin sensitizer

Skin irritant

**Category**

1

2

**Label Elements** - Pictograms, Signal Word, Hazard Statements, Precautionary Statements, & Supplemental Information



**Signal Word:** Warning

**Hazard Statements**

H315 Causes skin irritation

H317 May cause an allergic skin reaction

H335 May cause respiratory irritation

**Precautionary Statements – Prevention, Response, Disposal**

P264 Wash hands and exposed skin thoroughly after handling

P302+P352 IF ON SKIN- Wash with soap and water

P303+P361 IF ON SKIN (or hair): remove/Take off immediately all  
+P353 contaminated clothing. Rinse skin with water/shower

### Section 3 - Composition, Information on Ingredients

Hazardous Components	Case No.	Percent	GHS Ratings
d-limonene	5989-27-5	65-75	Skin Corrosion/Irritation(H315) 2 Skin Sensitizer(H317) 1
White Oil 90	8042-47-5	25-35	Skin Corrosion/Irritation(H315) 2 Skin Sensitizer(H317) 1

### Section 4 - First Aid Measures

**General Advice:** Provide the SDS to medical personnel for treatment

**Inhalation:** Remove victim to fresh air. Seek immediate medical attention.

**Eye Contact:** If product gets in the eyes, flush with lukewarm water for at least 15 minutes. If irritation occurs, contact a physician.

**Skin Contact:** Rinse thoroughly with lukewarm water, followed by a thorough washing of the affected area with soap and water. If irritation, redness or swelling persists, contact

- a physician immediately.  
**Clothing:** Remove contaminated clothing, wash thoroughly before reuse.  
**Ingestion:** If ingested, do not induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Provide an estimate of the time at which the materials was ingested and the amount of the substance that was swallowed. Get medical attention immediately.

## Section 5 - Fire Fighting Measures

**Suitable Extinguishing Media:** Chemical (alcohol-resistant) foam, dry chemical or carbon dioxide. Caution: Carbon dioxide will displace air in confined spaces and may create an oxygen deficient atmosphere.

**Unsuitable Extinguishing Media:** Water spray or water stream may not be effective.

**Special Hazards Arising from the Chemical:** Do not use water with full jet to prevent fire spreading. In case of fire, the following can be released: carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), smoke, soot.

**Advice for firefighters:** Vapors may be irritating to eyes, skin and respiratory tract. Firefighters should wear self-contained breathing apparatus (SCBA) and full fire-fighting turnout gear.

## Section 6 - Accidental Release Measures

### Personal Precautions, Protective Equipment and Emergency Procedures

**Personal Precautions:** Use personal protection recommended in Section 8. Product is slippery when spilled. Isolate the hazard area. Deny entry to unnecessary and unprotected personnel.

**Environmental Precautions:** Prevent further leakage or spillage. Keep away from drains, surface and ground-water and soil. Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers, surface or ground water.

### Methods and Material for Containment and Cleaning Up

Dike spill area and cap leaking containers as necessary to prevent further spreading of spilled material. Absorb liquid with suitable material such as dirt or sand. Eliminate all igniting sources. Use equipment rated for use around combustible materials. Place in appropriate disposal container.

## Section 7 - Handling and Storage

### Precautions for safe Handling

**Advice on Safe Handling:** Use personal protection equipment as mentioned under "exposure control. personal protection". Keep away from heat, sparks, and flame. Keep container closed after each use. Avoid contact with eyes and prolonged contact with skin. Use good personal hygiene and housekeeping. After use, wash hands and exposed skin with soap and water. Do not eat, drink, or smoke while handling product.

### Conditions for Safe Storage, Including any Incompatibilities

**Storage Conditions:** Store container in a cool, dry location, away from direct sunlight, heat, sparks, flame, other light sources, or sources of intense heat. Keep container closed when not in use. Air should be excluded from partially filled containers by displacing with nitrogen or carbon dioxide.

Do not cut, drill, grind or weld on or near the container.

## Section 8 - Exposure Controls, Personal Protection

### Ingredients with limit value that require monitoring at the workplace:

#### **CAS 5989-27-5, (R)-p-mentha-1.8-diene**

AGW (Germany):

110 mg/m<sup>3</sup>, 20 ppm, 2 (II): DFG, Sh, Y

AIHA Standard:

8h TWA= 30ppm

### Engineering Controls:

Normal room ventilation is usually adequate. Provide exhaust ventilation or other engineering controls to keep the airborne concentration below any regulated limits. Keep away from sparks and flames.

### Exposure Controls:

General protective and hygienic measures: Use personal protective equipment depending on concentration. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of the work. Avoid contact with eyes and skin.

### Eye/Face Protection:

Tightly sealed goggles according to EN 166:2001

### Skin Protection:

Preventative skin protection by use of skin-protection agents is recommended. Use protective gloves. Material of gloves: The selection of suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has to be checked prior to the application. Penetration time of glove materials: >480 minutes at layer thickness of 0.425 mm (Sol-Vex(37-695) from Ansell). For the permanent contact gloves made of the following materials are suitable: Nitrile rubber, NBR (e.g. following product Sol-Vex(37-695) from Ansell. As protection from splashes gloves made of the following materials are suitable: PVC Gloves.

### Respiratory Protection:

Suitable respiratory protection: Filter class A2 (brown colour). Use the rules for application of respiratory protection systems.

## Section 9 - Physical and Chemical Properties

<b>Appearance:</b>	Clear
<b>Color:</b>	Colorless to pale yellow
<b>Odor:</b>	Strong Orange Aroma
<b>Physical State:</b>	Liquid at 20°C (68°F)
<b>PH:</b>	N/A
<b>Boiling Point:</b>	176°C (348.8°F)
<b>Melting Point:</b>	-96°C (-141°F)
<b>Specific Gravity:</b>	0.838 – 0.843 at 25°C (77°F)
<b>Refractive Index:</b>	1.471 – 1.474 at 20°C (68°F)
<b>Optical Rotation:</b>	+96.00° to +104.00° at 25°C (77°F)
<b>Vapor Pressure:</b>	<2 mmHg at 20°C(68°F)
<b>Vapor Density:</b>	4.7 (Air=1)
<b>Decomposition Temp.:</b>	N/A
<b>Viscosity:</b>	0.923 cP at 25°C (77°F)
<b>Flash Point (Closed Cup):</b>	>43°C (>109°F)
<b>Flammable Limits:</b>	0.7% LL: 6.1% UEL
<b>Auto Ignition Temp:</b>	237°C (459°F)
<b>Solubility in Water:</b>	Immiscible
<b>Evaporation Rate:</b>	0.2 (BuAc=1)
<b>Partition Coefficient (n-octanol/water):</b>	Kow=4.23 (for d-limonene)

**Other Information:** None Listed

## Section 10 - Stability and Reactivity

<b>Reactivity:</b>	Minimal hazard
<b>Chemical stability:</b>	Stable
<b>Possibility of Hazardous Reactions:</b>	None
<b>Conditions to avoid:</b>	Keep away from heat, sparks and flames
<b>Incompatible Materials:</b>	Strong oxidizing agents and strong acids, including acidic clays, peroxides, halogens, vinyl chloride, and iodine Penta fluoride.
<b>Hazardous decomposition products:</b>	Oxides of d-limonene, which can result from improper storage and handling, are known to cause skin sensitization. No decomposition if stored properly.

## Section 11 - Toxicological Information

### Information on Toxicological Effects

<b>Acute Effects:</b>	d-Limonene has been shown to have low oral toxicity ( $LD_{50} > 2$ g/kg) when tested on rats and showed low dermal toxicity ( $LD_{50} > 5$ g/kg) when tested on rabbits. The product may be fatal if swallowed and enters airways. An $LC_{50}$ is not established. Inhalation may cause irritation of the nose, throat, and respiratory tract. The product is a skin irritant. The product may cause sensitization by skin contact.
<b>Chronic Effects:</b>	This product is not classified for repeated dose toxicity. This product is not classified as a carcinogen by IARC, or U.S. ACGIH, NTP or OSHA. This product has not been shown to product genetic changes when tested on bacterial or animal cells. This product does not contain known reproductive or developmental toxins.
<b>Likely Routes of Exposure:</b>	Inhalation, skin and eye contact
<b>Symptoms:</b>	Skin irritation and skin sensitization. The product may be fatal if swallowed and enters airways. Inhalation may cause irritation of the nose, throat and respiratory tract.
<b>Target Organs:</b>	Eyes, respiratory system and skin

## Section 12 - Ecological Information

<b>Toxicity:</b>	According to the official classification this product may be very toxic to aquatic life. However, due to the physical properties of the product (density and volatility) it will not remain in the environment for an extended period of time. $LC_{50}$ (fish and daphnia)= 0.1 to 1 mg/L (per REACH dossier).
<b>Persistence and degradability:</b>	d-Limonene is classified as readily biodegradable.
<b>Bio-accumulative Potential:</b>	The geometric mean of three predicted BCF for d-Limonene is 683, i.e. $BCF < 2000$ L/kg. Consistently the Log Kow is below 4.5 d-Limonene is not bio-accumulative.
<b>Mobility in Soil:</b>	Citrus extractives volatilize rapidly. Citrus extractives are expected to volatilize from soil or water to the air and oxidize to carbon dioxide in the presence of sunlight.
<b>Results of PBT and vPvB assessment:</b>	d-Limonene is readily biodegradable, and with a predicted BCF of 683 L/kg. All aquatic $EC_{50}/LC_{50}$ are higher than 0.1 mg/L, therefore d-limonene should not be considered environmentally toxic. D-Limonen is not PBT.
<b>Other Adverse Effects:</b>	None.

## Section 13 - Disposal Considerations

**Waste Treatment Methods:** Recycling is strongly preferred to disposal or burning. If disposing, please do so in accordance with official regulation in your area. Keep in mind that this product should not be disposed along with household garbage. Do not allow this product to reach any sewage waste system, as it may be detrimental to aquatic life. European waste catalogue: e.g. 02 03 03 wastes from advent extraction.

**Recommendations:** Empty contaminated packaging thoroughly. Packaging may be recycled or repurposed after thorough and proper cleaning. Note that this packaging may not be cleansed and disposed of in the same manner as the product.

**Moistened Solids:** (e.g., cloth, pulp, filter panels, binger) can be burnt after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations. European waste catalogues e.g. 15 02 02 Filter and absorption materials contaminated with hazardous agents.

#### Section 14 - Transport Information

<u>Agency</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>Hazard Class</u>
DOT	Not Regulated, NOS			
IATA	Not Regulated, NOS			
IMDG	Not Regulated, NOS			

#### Section 15 - Regulatory Information

##### State of California Safe Drinking Water and Toxic Enforcement Act of 1986

**(Proposition 65):** WARNING! This product contains the following chemicals which are listed by the State of California as carcinogenic or a reproductive toxin: None

**US State Right-to-Know Regulations:** None

<u>Country</u>	<u>Regulation</u>	<u>All Components Listed</u>
	EINECS	No
	SARA Hazard categories	No
	TSCA Inventory	No

#### Section 16 - Additional Information

##### Hazardous Material Information System (HMIS) Rating

HEALTH	0
FLAMMABILITY	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	0

##### National Fire Protection Association (NFPA) HMIS & NFPA Hazard Rating

HEALTH	0
FLAMMABILITY	1
INSTABILITY	0

##### HMIS & NFPA Hazard Rating

\* = Chronic Health Hazard

0 = INSIGNIFICANT

1 = SLIGHT

2 = MODERATE

3 = HIGH

B = Gloves and Safety Glasses or Chemical Goggles.

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Reliance Dental Mfg. Co. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if user has been advised of the possibility of such damages.*

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