Safety Data Sheet

Section 1 - Chemical Product and Company Identification

Product Name: Orange Solvent
Company Identification:
Reliance Dental Mfg., LLC.
5805 W. 117th 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	**Category**
Skin sensitizer	1
Skin irritant	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 +P353	IF ON SKIN (or hair): remove/Take off immediately all 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 use water with full jet to prevent fire spreading. In case of fire, the following can be released: carbon monoxide ©, carbon dioxide (CO2), 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/m3, 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 ot manufacture. 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 color). Use the rules for application of respiratory protection systems.

Section 9 - Physical and Chemical Properties

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

Other Information: None Listed

Section 10 - Stability and Reactivity

Reactivity:	Minimal hazard
Chemical stability:	Stable
Possibility of Hazardous Reactions:	None
Conditions to avoid:	Keep away from heat, sparks and flames
Incompatible Materials:	Strong oxidizing agents and strong acids, including acidic clays, peroxides, halogens, vinyl chloride, and iodine Penta fluoride.
Hazardous decomposition products:	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

Acute Effects:	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}> 5g/kg) when tested on rabbits. The product may be fatal if swallowed and enters airways. An LC50 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.
Chronic Effects:	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.
Likely Routes of Exposure:	Inhalation, skin and eye contact
Symptoms:	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.
Target Organs:	Eyes, respiratory system and skin

Section 12 - Ecological Information

Toxicity:	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. LC50 (fish and daphnia)= 0.1 to 1 mg/L (per REACH dossier).
Persistence and degradability:	d-Limonene is classified as readily biodegradable.
Bio-accumulative Potential:	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.
Mobility in Soil:	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.
Results of PBT and vPvB assessment:	d-Limonene is readily biodegradable, and with a predicted BCF of 683 L/kg. All aquatic EC50/LC50 are higher than 0.1 mg/L, therefore d-limonene should not be considered environmentally toxic. D-Limonen is not PBT.
Other Adverse Effects:	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 you r 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

Agency	Proper Shipping Name	UN Number	Packing Group	Hazard Class
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

Country	Regulation	All Components Listed
	EINECS	No
	SARA Hazard categories	No
	TSCA Inventory	No

Section 16 - Additional Information

Hazardous Material Information System (HMIS) Rating		National Fire Protection Association (NFPA) HMIS & NFPA Hazard Rating	
HEALTH	0	HEALTH	0
FLAMMABILITY	1	FLAMMABILITY	1
PHYSICAL HAZARD	0	INSTABILITY	0
PERSONAL PROTECTION	0		

HMIS & NFPA Hazard Rating
*= Chronic Health Hazard
0 = INSIGNIFICANT
1 = SLIGHT
2 = MODERATE
3 = HIGH
B = Gloves and Safety Glasses or Chemical Goggles.

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