



702 E. Expressway 83 • Mission, Texas 78572 • Tel: (956) 585-8321

## MATERIAL SAFETY DATA SHEET

**24 Hour Emergency Telephone No. (Chemtrec) 1-800-424-9300**

*The emergency number should be used only in the event of an emergency involving a spill, leak, fire, exposure or accident with hazardous materials.*

### **I. PRODUCT IDENTIFICATION**

Trade Name:	D' Limonene Technical Grade	TCX Product Code:	BP04300
Chemical Family:	Citrus Oil	CAS Number:	5989-27-5
Chemical Name:	Terpene Hydrocarbons	FEMA/GRAS Number:	N/A
DOT Shipping Name:	Terpene Hydrocarbons, n.o.s.	Molecular weight:	mixture
DOT Hazard Class:	flammable liquid, class 3	Molecular Formula:	N/A
DOT Packaging Group:	III	Harmonized Code:	N/A
DOT ID Number:	UN 2319	ERG Guide No.:	128

### **II. HAZARDOUS COMPONENTS**

<u>Name</u>	<u>Concentration (Range)</u>	<u>Threshold Limit Value (TLV)</u>
D'limonene	90-97%	none detected
Terpenes N.O.S	3-10%	none detected

Although no threshold limit value is established for this mixture by Federal Standards, a lowest achievable TLV is accomplished by means of sufficient ventilation.

### **III. PHYSICAL AND CHEMICAL DATA**

Appearance: Colorless to light yellow liquid	Odor: citrus aroma
Boiling point (1atm): 176.7°C (350°F)	Freezing Point: n/d
Specific Gravity: 0.840	
Solubility in Water: Insoluble	

### **IV. FIRE AND EXPLOSION HAZARD DATA**

Hazardous Material Identifications System (HMIS):

Health : 1      Flammability : 2      Reactivity : 0      Protection: G

Flash Point (closed cup):	46°C (115°F) Class III Flammable liquid
Ignition Temperature:	237°C (458 F)
Extinguishing Media:	Use media for Class B fires: foam CO <sub>2</sub> or dry compound. Avoid direct contact with water.
Special fire fighting procedures:	SCBA recommended, PPC should be worn. If confined in a container, cool the exterior with water spray.
Unusual fire and explosion hazards:	Pressure build up will occur if closed drums are exposed to heat or flame.

**V. REACTIVITY DATA**

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Stability consideration :	Stable.
Condition to avoid :	In typical flavoring uses, no contact with inflammable or explosive chemicals likely.
Incompatibility:	None known.
Hazardous decomposition product:	None known.
Hazardous polymerization :	No

**VI. HEALTH HAZARD DATA**

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Carcinogenic Data:	Not listed in NTP, IARC or OSHA directories of Carcinogenic Materials.
Primary route of Exposure:	Skin contact.
Effects of overexposures:	
Acute:	Vapor irritates eyes and mucous membranes. Skin contact with liquid may cause localized itching and moderate irritant.
Chronic	Frequent exposure may induce dermatitis in sensitive individuals. Prolonged contact has caused photosensitivity in some cases.

Medical Conditions Aggravated by Exposure: None known.

Emergency first aids procedures:

Inhalation:	Immediately move outside to fresh air. Perform CPR if not breathing. Call emergency personnel is the situation is life threatening.
Eyes:	Flush with water for least 15 minutes. If irritation persists, contact a physician.
Skin:	Wash with soap and water. If persists, see a physician.
Ingestion:	Give water and milk to dilute substance. For large amounts, see a physician.

**VII. SAFETY MEASURES AND EQUIPMENT**

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Ventilation:	Mechanical ventilation recommended.
Respiratory:	Optional.
Skin:	Protective Neoprene gloves are recommended.
Eyes:	Safety glasses with side shields or chemical goggles.
Restrictions:	No open flames, smoking or unshielded lights.
Handling and storage precautions:	Store in cool, well ventilated place away from reactive chemicals, spark sources or open flames. Container should be kept closed and plainly labeled.
Other:	Eye wash stations and emergency showers should be located nearby.

**VIII. SPILL OR LEAK PROCEDURES**

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Spill Control:	Do not smoke; eliminate sources of ignition. Contain spill with absorbent materials. Remove to a disposal container and scrub floor with detergent and water. Use mop to clean up small spills. Caution: Spills are very slippery on floors.
Disposal:	Dispose in accordance with state, federal and local disposal laws.

**XI. REGULATORY STATUS**

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No health hazards data exists for daily occupational exposure to this mixture. When used at recommended levels in flavor applications, this mixture has been determined to be generally recognized as safe (GRAS) in safety review by the Flavor and Extract Manufacturer's Association of the United States (FEMA) under the authority of section 201(s) of the Federal Food, Drug and Cosmetic Act.