



MATERIAL SAFETY DATA SHEET
gamma-TERPINENE, NATURAL

Preparation Date 09/01/06

HMIS HAZARD RATING:

Health: 1 Flammability: 2 Reactivity: 1

I. PRODUCT IDENTIFICATION

Product Name:	gamma-Terpinene	Chemical Name:	1-Methyl-4-isopropyl-1,4-cyclohexadiene
Product Code:	0471155	CAS#	99-85-4
Formula:	C ₁₀ H ₁₆	Chemical Family:	Terpene Hydrocarbon
Molecular Wt.	136.24		

II. HAZARDOUS INGREDIENTS None

III. PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point °C:	115°C @ 10mm	Specific Gravity (H ₂ O = 1):	0.847
Vapor Pressure (mm Hg):	N.Av.	Melting Point:	N.Av.
Vapor Density (AIR = 1):	> 1.0	Evaporation Rate:	N.Av.
Solubility in Water:	Insoluble		
Appearance:	Clear Colorless Liquid	Odor:	Lemon

IV. FIRE AND EXPLOSION HAZARD DATA

Flashpoint (Method Used)	132°F (CC)
Lower Flammable Limit (% by Volume)	N.Av.
Upper Flammable Limit (% by Volume)	N.Av.
Extinguishing Media	Dry chemical, foam or water
Special Fire Fighting Procedures	Self-contained breathing apparatus and protective clothing should be worn when fighting fires involving chemicals.
Unusual Fire and Explosion Hazards	None

V. REACTIVITY DATA

Stability	Chemically Stable	Conditions to Avoid: N.Ap.
Incompatibility with other Substance (Materials to Avoid)	Avoid contact with strong oxidizing agents.	
Hazardous Decomposition or Byproducts	N.Av.	
Hazardous Polymerization	No	Conditions to Avoid: N.Ap.

VI. HEALTH HAZARD DATA

Routes of Entry	Inhalation? [X] Skin Contact? [X] Skin Absorption? [] Ingestion? [X]
Health Hazards (Acute and Chronic)	Acute: Irritating to skin and eyes. Chronic: None reported.
Carcinogenicity	NTP? [No] IARC Monographs? [No] OSHA Regulated? [No]

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VII. EMERGENCY AND FIRST AID PROCEDURES

Inhalation	Remove from the exposure to fresh air. Contact a physician as necessary. If breathing is irregular or has stopped, start resuscitation and administer oxygen if available.
Eye Contact	Flush immediately with clean water for at least 15 minutes. Contact a physician if irritation persists.
Skin Contact	Remove any contaminated clothing or shoes. Wash affected areas thoroughly with soap and water. If irritation persists, contact a physician.
Ingestion	Give water to dilute. Contact a physician immediately.

VIII. PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in case material is released or spilled.	Eliminate all ignition sources. Ventilate area. Contain spill and recover free product. Report spill to appropriate authorities if required.
Waste Disposal Method	Place material into sealed containers and dispose of in accordance with current applicable laws and regulations.
Precautions to be taken in handling and storing.	Avoid inhalation and contact with skin and eyes. Good personal hygiene practices should be used. Wash after any contact, before breaks and meals, and at the end of the work period. Contaminated clothing and shoes should be cleaned before re-use. Good manufacturing practices dictate that an eyewash fountain and/or safety shower should be available in the work area.
Other Precautions:	None.

IX. CONTROL MEASURES

Respiratory Protection:	None generally required. If desired use NIOSH approved respirator.
Ventilation:	Local exhaust meeting ACGIH criteria as needed.
Protective Gloves:	Use chemical resistant gloves.
Protective Eyewear:	Use splash goggles or face shield when eye contact might occur.
Other Protective Clothing or Equipment:	None required.

X. EMERGENCY CONTACT INFORMATION

Emergency Contact Name:	INFOTRAC
Contact Number (inside US and Canada):	(800) 535-5053
Contact Number (collect outside of US and Canada):	(352) 323-3500

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