



**MATERIAL SAFETY DATA SHEET**  
**BITTERNESS BLOCKER FOR EARLY SEASON ORANGE**  
**IN d-LIMONENE, NATURAL**

**Preparation Date 09/01/06**

**HMIS HAZARD RATING:**

**Health: 1      Flammability: 2      Reactivity: 1**

**I. PRODUCT IDENTIFICATION**

Product Name:	Bitterness Blocker for Early Season Orange in d-Limonene	Chemical Name:	Flavorant, containing d-Limonene
Product Code:	7000904	CAS#	5989-27-5
Formula:	C10H16	Chemical Family:	Terpene Hydrocarbon
Molecular Wt.	136.2		

**II. HAZARDOUS INGREDIENTS** None

**III. PHYSICAL/CHEMICAL CHARACTERISTICS**

Boiling Point °C:	N.Av.	Specific Gravity (H <sub>2</sub> O = 1):	0.842
Vapor Pressure (mm Hg):	N.Av.	Melting Point:	N.Ap.
Vapor Density (AIR = 1):	N.Av.	Evaporation Rate:	N.Av.
Solubility in Water:	Insoluble		
Appearance:	Colorless to Light Yellow Liquid	Odor:	Citrus

**IV. FIRE AND EXPLOSION HAZARD DATA**

Flashpoint (Method Used)	104 °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.

*Technology Improving Taste*



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**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]

**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.

**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**

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

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