



Florida Chemical Co Inc
351 Winter Haven Blvd, N.E.
Winter Haven, FL 33881-9432 USA
Ph: 863/294-8483 Fax: 863/294-7783
Email: info@floridachemical.com
Website: www.floridachemical.com

Grapefruit Terpenes

Product Code: 306000

Product Data Sheet

Preparation Date: November 2002

DESCRIPTION

Grapefruit Terpenes in the major volatile oil recovered as a by-product from the vacuum distillation folding process of cold pressed grapefruit oil.

APPEARANCE & ODOR

Clear liquid with a pleasant grapefruit odor.

TYPICAL ANALYSIS

Appearance	Clear liquid
Odor	Pleasant grapefruit odor
Specific Gravity (25°C)	0.842
Refractive Index (20°C)	Not Available
Optical Rotation (25°C)	+98
Aldehyde, % (as decyl)	1.0
Flashpoint (cc)	115°F
Boiling Point	Not Available
Evaporation Rate	Slow
Water Solubility	Insoluble
Vapor Density (air=1)	Over 1
Vapor Pressure (20°C)	Approx. 1mmHg
Percent Volatile by Volume	95%

Solubility

Benzyl Benzoate	Soluble
Glycerine	Insoluble
Mineral Oil	Soluble
Propylene Glycol	Slightly Soluble

USES & APPLICATIONS

Current d-Limonene formulators may find Grapefruit Terpenes from Florida Chemical Co., Inc. an interesting addition to their orange d-Limonene product line. This food grade oil has pleasant flavor and aroma characteristics and can be used for both food and industrial purposes. Florida Chemical Co., Inc.'s Grapefruit Terpenes are not generally used as a flavoring material in food products, but can be used to add citrus aroma to air fresheners, cleaning formulations, and other industrial products.

PACKAGING

Florida Chemical Co., Inc.'s Cold Pressed Grapefruit Oil is packaged in epoxy-lined containers as follows:

1-Gallon Pail	7 Pounds Net Weight	3.2 kg Net Weight
5-Gallon Pail	35 Pounds Net Weight	16 kg Net Weight
55-Gallon Pail	390 Pounds Net Weight	177 kg Net Weight

STORAGE & HANDLING

Filled drums should be stored in well ventilated, covered areas at temperatures which should not exceed 70°F (21°C) for extended periods of time. Air should be excluded from partially filled drums by displacement with Nitrogen or CO₂. Citrus oils are subject to oxidation. This process may be inhibited by the addition of antioxidants.

Samples and certificates of analysis are available upon request.

The information contained in these formulations is based on data obtained by Florida Chemical Co., Inc. and is considered accurate. No warranty is express or implied regarding the accuracy of these data, the results to be obtained from the use thereof, or that any such use will not infringe any patent. This information is furnished upon the condition the person receiving it shall determine the suitability for the particular purpose.

MATERIAL SAFETY DATA SHEET

306000 - Grapefruit Terpenes

Section I - IDENTIFICATION

Trade Name: Grapefruit Terpenes

Product Code: 306000

CAS Number: 68917-32-8

Section II - EMERGENCY CONTACT

ONLY IN THE EVENT OF CHEMICAL EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT INVOLVING CHEMICALS

CHEMTREC

United States Shipments **(800) 424-9300**

Outside United States: **Call CHEMTREC Collect**

Section III - HAZARDOUS COMPONENTS

This product contains hazardous ingredients: NO

Hazardous Materials Identification System - HMIS:

- 1 Health Hazard - Mild skin irritant
- 2 Flammability - Flashpoint above 100°F
- 0 Reactivity - Stable
- B Protection - Safety glasses & gloves recommended

Section IV - PHYSICAL DATA

Appearance

Clear liquid

Odor

Pleasant grapefruit odor

Specific Gravity (25°C)

0.842

Refractive Index (20°C)

Not Available

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Section V - FIRE AND EXPLOSION HAZARD DATA

Flash Point (CC): 115°F

Flammable Limits: LEL = Not Available UEL =Not Available

Extinguishing Media: Carbon dioxide, foam or dry chemical

Special Fire Fighting Procedures: SCBA recommended. Smother to exclude air. Do not use water. Handle as an oil fire.

Unusual Fire and Explosive Hazards: Combustible liquid. Keep away from heat, sparks, and open flame.

Incompatibility (Materials to avoid): Strong oxidizing agents.

Hazardous Decomposition Products: Not Available

Hazardous Polymerization: Will not occur

Conditions to Avoid for Polymerization: Not Available

Stability Considerations: Stable

Conditions to Avoid for Stability: Avoid temperatures over 115°F

Section VI - HEALTH HAZARD DATA

Health Hazards (Acute and Chronic): Product is a moderate irritant, slight allergen, moderate ingestion and slight inhalation hazard under acute local application. Slight allergen under chronic local application.

This Product Contains NO Carcinogens (NTP, IARC or OSHA)

Signs and Symptoms of Exposure: Product may be irritating to the skin, eyes, nose and throat.

Medical Conditions Generally Aggravated by Exposure: Persons with allergies or pre-existing skin conditions should avoid contact with this product.

Emergency & First Aid Procedures

Eyes: Remove contact lenses at once. Flush with water for at least 15 minutes. If irritation persists, seek medical attention.

Skin: Wash affected area with copious amounts of soap and water. If irritation develops, seek medical attention.

Ingestion: Seek medical attention immediately. Do not leave victim unattended.

Inhalation: If symptoms of overexposure are experienced, evacuate to fresh air. If symptoms persist, seek medical attention.

Section VII - SPILL OR LEAK PROCEDURES

Steps to be Taken if Material is Released or Spilled: Use protective gloves to avoid skin contact. Small spills can be wiped up. Large spills should be absorbed by dirt, sand, or other suitable absorbents for disposal. Do not hose spills down drains, sewers, or waterways. Grapefruit Terpenes may be toxic to aquatic organisms. Move leaking containers to well ventilated area. No smoking. Eliminate any source of ignition. Minimize inhalation. Use NIOSH approved respiratory protection device. CAUTION: slippery on floor.

Waste Disposal Method: Incinerate or Dispose in Accordance with Local, State, and Federal Regulations. Taking regulations into consideration, waste may be incinerated or handled through EPA spill control plan via land fill or dilution.

MATERIAL SAFETY DATA SHEET

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Section VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection: Not normally required. If vapor concentration becomes high, use NIOSH approved respirators.

Ventilation: Local exhaust should be adequate. Mechanical ventilation otherwise recommended if necessary.

Skin Protection: Oil resistant gloves.

Eye Protection: Oil resistant goggles.

Other Protective Equipment: Oil resistant apron, emergency eye wash and shower stations.

Appropriate Hygienic Practices: Wash thoroughly after handling. Launder contaminated clothing before re-use.

Section IX – STORAGE & HANDLING

Precautions to be Taken in Handling and Storing: Usual precautions for combustible liquids.

Handling and Storage Precautions: Store in sprinklered warehouse. Avoid contact with incompatible chemicals listed in Section VI. Store in tightly sealed, full containers at temperatures below 80°F. Partially filled containers should be blanketed with nitrogen.

The information contained herein is based on current knowledge and experience: no responsibility is accepted that the information is sufficient or correct in all cases. Users should consider these data only as a supplement to other information obtained by the user. No warranty is expressed or implied regarding the accuracy of this data, the results to be obtained from the use thereof, or that any such use will not infringe any patent. Users should make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials, the safety and health of employees and customers, and the protection of the environment. This information is furnished upon the condition the person receiving it shall determine the suitability for the particular purpose. This MSDS is to be used as a guideline for safe work practices and emergency response.