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**MATERIAL SAFETY DATA SHEET****Emergency Phone Numbers**

Florida Chemical: (863) 294-8483

**CHEMTREC 24 Hour Number (800) 424-9300**Outside United States: **Call CHEMTREC Collect**

October 2003

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**Section I - IDENTIFICATION**

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**Trade Name:** Folded Orange Oil – 5-Fold & 10-Fold**CAS Number:** 8028-48-6

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**Section II - HAZARDOUS COMPONENTS**

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This product contains NO hazardous ingredients.

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

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**Section III - PHYSICAL DATA**

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	<b>5-Fold Orange Oil</b>	<b>10-Fold Orange Oil</b>
<b>Appearance</b>	Dark orange oil	Dark orange oil
<b>Odor</b>	Fresh orange aroma	Fresh orange aroma
<b>Specific Gravity (25°C)</b>	0.860 - 0.870	0.870 – 0.890
<b>Refractive Index (20°C)</b>	1.4775-1.4785	1.4790-1.4860
<b>Optical Rotation (25°C)</b>	80.0 – 86.0	64.0 – 78.0
<b>Aldehyde, % (as decyl)</b>	4.0 min.	7.5 min.
<b>Flashpoint (cc)</b>	118°F/48°C	120°F/49°C
<b>Boiling Point</b>	349°F	349°F
<b>Evaporation Rate</b>	Slow	Slow
<b>Water Solubility</b>	Insoluble	Insoluble
<b>Vapor Density</b>	Not Available	Not Available
<b>Vapor Pressure</b>	Not Available	Not Available
<b>Percent Volatile by Volume</b>	85%	78%

## MATERIAL SAFETY DATA SHEET (cont)

Folded Orange Oil

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### Section IV - FIRE AND EXPLOSION HAZARD DATA

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**Flash Point (cc):** 118°F – 120°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 118°F

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### Section V - HEALTH HAZARD DATA

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**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 DOES NOT Contain 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.

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### Section VI - SPILL OR LEAK PROCEDURES

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**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. Folded Orange Oil 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 landfill or dilution.

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### Section VII - SPECIAL PROTECTION INFORMATION

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**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.

## MATERIAL SAFETY DATA SHEET (cont.)

Folded Orange Oil

**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.

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### Section VIII - SPECIAL PRECAUTIONS

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**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 IV. Store in tightly sealed, full containers at temperatures below 80°F. Partially filled containers should be blanketed with nitrogen.

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### Section IX – TRANSPORTATION INFORMATION

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**TDG Status:** Hazardous

DOT Label/Placard [exemption § 173.150(f) applies:

**IMO Status:** Hazardous

Highway/Rail: per requirements for Combustible Liquids

**IATA Status:** Hazardous

Air/Ship: per requirements for Flammable Liquids

#### SHIPPING CLASSIFICATION:

**Proper Shipping Name:** TERPENE HYDROCARBONS, N.O.S.

**Hazard Class:** 3

**Identification No:** UN2319

**Packing Group:** III

The listed transportation classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptions.

**National Fire Protection Association Hazard Rating:** 1 Health Hazard - Slight  
2 Flammability - Moderate  
0 Reactivity - Minimal

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