Material Safety Data Sheet

In accordance with SANS 10234:2019 and GHS standard criteria

Sweet Orange Essential Oil FG

SECTION 1: Product and Company Information

1.1 Product Identifier

- **Product Name:** Sweet Orange Essential Oil FG
- **INCI Name:** *Citrus sinensis*
- **CAS Number:** 8008-75-9 / 5989-27-5

1.2 Relevant Identified Uses of the Substance

- **Identified Uses:** Food (flavourant) and industrial formulation uses.
  Restrictions: Not intended to be consumed as is

1.3 Details of the Supplier of the Safety Data Sheet

- **Company Name:** Oryion Oils & Fragrants
- **Address:** Main Road, Queensburgh, Durban, South Africa, 4076
- **Contact Number:** 076 092 6052

1.4 Emergency Telephone Number

- **Emergency Hotline:** 076 092 6052 (Available during business hours)

SECTION 2: Hazards Identification

2.1 Classification of the Substance or Mixture

- Flammable Liquids, Category 3 (H226)
- Skin Corrosion/Irritation, Category 2 (H315)
- Serious Eye Damage/Eye Irritation, Category 2B (H320)
- Respiratory Sensitisation, Sub-category 1B (H334)
- Hazardous to the Aquatic Environment, Acute Hazard, Category 1 (H400)

2.2 GHS Label Elements

- **Signal Word: DANGER**
- **Hazard Pictograms:** Flammable (GHS02), Irritant (GHS07), Respiratory Hazard (GHS08), Environment (GHS09)
- **Hazard Statements:**

- H226: Flammable liquid and vapour.
- H315: Causes skin irritation.
- H320: Causes eye irritation.
- H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H400: Very toxic to aquatic life.

- **Precautionary Statements (Prevention):**

  - P210: Keep away from flames and hot surfaces. No smoking.
  - P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
  - P264: Wash hands thoroughly after handling.
  - P270: Do not eat, drink, or smoke when using this product.
  - P273: Avoid release to the environment.
  - P280: Wear protective gloves/clothing/eye protection/face protection.

- **Precautionary Statements (Response):**

  - P302+P352: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
  - P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  - P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
  - P332+P313+P337: If skin irritation occurs or eye irritation persists: Get medical advice/attention.
  - P342+P311: If experiencing respiratory symptoms: Call a DOISON CENTER or doctor.
  - P391: Collect spillage.
    P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 3: Composition/Information on Ingredients

- **3.1 Substances**

  - **Chemical Identity:** 100% Pure Terpene Hydrocarbons (Natural Orange Oil) n.o.s.
  - **Description:** Obtained from cold-pressing Orange (*Citrus sinensis*) peel.
  - **Primary Component:** Composed primarily of d-limonene.

SECTION 4: First Aid Measures

- **4.1 Description of First Aid Measures**

  - **Skin Contact:** Remove contaminated clothing. Wash affected areas with soap and lukewarm water. If irritation occurs, consult a physician.
  - **Eye Contact:** Rinse eyes with large volumes of lukewarm water. Consult a physician if symptoms persist after washing.
  - **Ingestion:** Do not induce vomiting. First aid is not usually required for small ingestion. In case of overdose, drink large volumes of water or milk and consult a physician.
  - **Inhalation:** Move individual away from exposure and into fresh air. If symptoms persist, seek medical assistance. If breathing is difficult, administer oxygen.

- **4.2 Most Important Symptoms and Delayed Effects:** Hives. May cause sensitization or allergic respiratory reactions in susceptible persons.

- **4.3 Immediate Medical Attention:** Treat symptomatically.

SECTION 5: Firefighting Measures

- **5.1 Extinguishing Media**
    - **Suitable Extinguishing Agents:** Dry chemical, foam, extinguishing powder, carbon dioxide (CO_2), or sand.
    - **Unsuitable Extinguishing Agents:** Water contact during active thermal breakdown may generate flammable vapours.
- **5.2 Specific Hazards Arising from the Chemical:** Not directly combustible, but heated conditions may liberate hazardous toxic vapours.

5.3 Protection for Firefighters: Stay in danger zone only with a self-contained breathing apparatus (SCBA). Avoid fire vapours. Avoid skin contact by keeping a safe distance

SECTION 6: Accidental Release Measures

- **6.1 Personal Precautions:** Keep spill away from all active ignition sources. Avoid direct substance contact. Ensure adequate space ventilation.
- **6.2 Environmental Precautions:** Do not empty spilled chemical materials into drains or waterways.

6.3 Methods for Clean-up: Extinguish all possible ignition sources and ventilate. Use non-flammable absorbent material to soak up spillage and place in waste disposal containers. Rinse the affected footprint with lukewarm water and detergent

SECTION 7: Handling and Storage

- **7.1 Safe Handling:** Keep product away from direct ignition sources to prevent fire risks. Keep in closed original containers to avoid structural leaks. Do not smoke in work zones. Wash hands thoroughly after handling.

7.2 Conditions for Safe Storage: Keep out of direct sunlight. Do not store at elevated temperatures; maintain under 40°C in cool areas away from heat, sparks, and open flames. Keep locked up.

SECTION 8: Exposure Controls/Personal Protection

- **8.1 Control Parameters:** This product, as supplied, does not contain hazardous components with occupational exposure limits established by region-specific regulatory bodies.
- **8.2 Exposure Controls**
    - **Engineering Controls:** General local or room exhaust ventilation systems are required.
    - **Individual Protection Measures:** Do not eat, drink, or smoke when processing.
- **Eye/Face Protection:** Wear liquid splash-proof safety goggles.
- **Hand/Skin Protection:** Normal skin protection is not required under typical handling conditions. Wear protective gloves if extended contact occurs.

Respiratory Protection: Not required when working inside adequately ventilated zones

SECTION 9: Physical and Chemical Properties

- **Physical State:** Liquid
- **Appearance:** Clear
- **Colour:** Orange
- **Odour:** Characteristic of fresh orange peel
- **Melting/Freezing Point:** -74.3 °C
- **Initial Boiling Point:** > 35 °C
- **Flash Point:** 46 °C
- **Vapour Pressure:** < 300 kPa @ 50°C
- **Specific Gravity @ 20°C:** 0.8450 – 0.8550
- **Refractive Index @ 20°C:** 1.4700 – 1.4750
- **Auto-ignition Temperature:** 255 °C
- **Solubility:** Very low solubility in water (<0.1%); soluble in polar organic solvents, hexane, and petroleum ether.
- **Explosive Properties:** Not classified as explosive.

SECTION 10: Stability and Reactivity

- **10.1 Reactivity & Stability:** Highly stable under standard environmental storage conditions and recommended handling setups.
- **10.2 Hazardous Reactions:** No dangerous hazardous reactions known under normal conditions.
- **10.3 Conditions to Avoid:** Ambient heat, open flames, and active sparks.
- **10.4 Incompatible Materials:** None specific known to produce a hazardous situation.
- **10.5 Hazardous Decomposition:** Vapours and carbon oxides liberated under fire breakdown (refer to Section 5).

SECTION 11: Toxicological Information

- **11.1 Toxicity Effects**

  Product raw material does not present an acute toxicity hazard based on known technical data. May act as a skin and eye irritant. Vapour inhalation can cause allergic or asthmatic symptoms or breathing difficulties in susceptible individuals.

SECTION 12: Ecological Information

- **12.1 Ecotoxicity:** Very toxic to aquatic life with long-lasting environmental effects.
- **12.2 Marine Pollutant Status:** Not formally considered a marine pollutant according to IMDG Code specific evaluation criteria.

  12.3 PBT & vPvB Assessment: No baseline technical evaluation information available.

SECTION 13: Disposal Considerations

13.1 Waste Treatment Methods: Dispose of in accordance with regional, provincial, and national environmental regulations. In most scenarios, certified chemical incineration or dedicated landfilling protocols apply. Contact official municipal authorities to advise on tracking residues. Do not allow material concentrate to enter groundwater, soil, or drinking water networks.

SECTION 14: Transport Information

- **14.1 Land Transport (ADR/RID):**
  - **UN Number:** UN 2319 | **Shipping Name:** Terpene hydrocarbons n.o.s. | **Class:** 3 | **Packing Group:** PG III

- **14.2 Sea Transport (IMDG):**
  - **UN Number:** UN 2319 | **Shipping Name:** Terpene hydrocarbons n.o.s. | **Class:** 3 | **Packing Group:** PG III

- **14.3 Air Transport (IATA):**
  - **UN Number:** UN 2319 | **Shipping Name:** Terpene hydrocarbons n.o.s. | **Class:** 3 | **Packing Group:** PG III

SECTION 15: Regulatory Information

15.1 Specific Legislation Guidelines: Aligned with international GHS frameworks and regional environmental safety criteria. FDA GRAS Status: 182.20 for raw essential oils, solvent-free oleoresins, and natural extractives

SECTION 16: Other Information

- **Disclaimer:** The information contained in this 16-point safety data sheet is accurate and true to the best of our technical knowledge. All data instructions and handling steps are formulated without an explicit or implied quality guarantee. Users must execute their independent process verification checks.

- **Revision Date:** August 2026.

.