



MATERIAL SAFETY DATA SHEET

SECTION: 1.1 PRODUCT IDENTIFICATION

Product Name: Orange Essential Oil (Sweet)
Botanical Name: Citrus sinensis L.
Synonyms: Citrus aurantium var. sinensis; Citrus macracantha, Citrus sinensis x Poncirustrifoliata, Citrus aurantium L. var. sinensis L., Aurantium sinense (L.) Mill., Citrus aurantium L. subsp. sinensis (L.) P. Fourn., Citrus aurantium L., Citrus sinensis var. dulcis
Extraction Method: Cold-pressed from the ripe orange peel
INCI Name: Citrus sinensis dulcis (orange) peel oil
Country of Origin: Brazil

SECTION: 1.2 COMPANY IDENTIFICATION

Company: Saffire Blue Inc.
 1444 Bell Mill Road
 Tillsonburg, ON N4G4G9 Canada
 Tel: 519-286-0295

24 HOUR EMERGENCY TELEPHONE NUMBER: (613)-996-6666 CANUTEC

SECTION: 2. COMPOSITION / INFORMATION INGREDIENTS

Chemical Name	EINECS CAS Number	EINECS Number	Proportions [%w/w]
Orange Sweet Essential Oil	8028-48-6	232-433-8	100%
Contents:	Citrus terpenes		

SECTION: 3. HAZARDS IDENTIFICATION

Hazardous Ingredient: May be irritating to skin and eyes and respiratory tract.
 Flammable liquid and vapour.
 May be fatal if swallowed and enters airways.
 Causes skin irritation
 May cause an allergic skin reaction
 Very toxic to aquatic life with long lasting effects.

SECTION: 4. FIRST AID MEASURES

Eye Contact: Contact with eyes can produce burning redness or pain. Irrigate with water immediately with clean cold running water for 15 minutes with eyelids open. Seek medical attention if irritation persists.

Inhalation: Remove to fresh air. Give oxygen if breathing is labored and seek medical advice. Avoid casual breathing.

Ingestion: Rinse mouth; dilute with milk or water and consult a physician immediately. Do not induce vomiting. Never give anything by mouth if victim is unconscious, is rapidly-losing consciousness or is convulsing.

Skin Contact: Skin contact can produce irritation, or itching of the skin. Remove contaminated clothing. Wash with soap and plenty of cold water. Do not apply ointment. Seek medical attention if irritation persists.



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SECTION: 5. FIRE FIGHTING MEASURES

Flash Point:	43 to 49 °C Closed cup
Extinguishing media:	Carbon Dioxide, sand or foam. DO NOT USE direct water jet on burning material.
Special Procedures:	Determine the need to evacuate or isolate the area according to your local emergency plan.
Unusual Firefighting Hazards:	None identified.
Protective Equipment:	Self-contained breathing apparatus and protective clothing should be worn when fighting fires involving essential oils or chemicals.
Additional Advice:	Pumps and/or electrical ventilating jam should have explosion proof motors. Keep the area free from flame or sources of ignition.

SECTION: 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Use of self-contained breathing apparatus is recommended for any major chemical spill. Refer also to section 8.
Safety Precautions:	Eliminate all ignition sources. Ventilate area. Determine the need to Evacuate or isolate the area according to your local emergency plan.
Environmental Precautions:	Keep away from drains, surface and ground water. Report spills to appropriate Authorities if required.
Methods For Cleaning Up:	Contain and collect with inert absorbent material and place in suitable container for disposal. Comply with all federal, state, and local regulation. Wipe small spills with cloth. Clean with hot water and detergent

SECTION: 7. HANDLING AND STORAGE

Handling:	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.
Storage:	Containers should be kept closed in order to minimize contamination. Store in a cool, dry, well ventilated place protected from light. Keep away from extreme heat and from freezing conditions and away from all sources of ignition. Make sure the material does not come into contact with substances listed as: "Materials to Avoid". Store in steel tanks.

SECTION: 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Eyes Protection:	Eye protection shield is recommended.
Respiratory Protection:	In well- ventilated areas, respiratory protection is not normally required. In confined, poorly ventilated areas the use of "NIOSH" approved respiratory protection normally required (use only if trained in proper use and with acceptable oxygen level).



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Protective Gloves: Using chemical resistant gloves is recommended.
Protective Clothing: Using chemical resistant clothing is recommended.
Protective Equipment: An eyewash fountain and / or safety shower should be available in the work area. Acceptable industrial hygiene practices should be maintained.
Note: These precautions are for room temperature handling. Use at elevated temperature or aerosol / spray applications may require additional precautions.

SECTION: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Yellow to orange liquid
Odor: Characteristic orange odor
Solubility: Soluble in ethyl alcohol, insoluble in water
Specific Gravity: 0.838 – 0.850 @ 25 °C
Melting Point: -74 to -96.9°C
Boiling Point: 175.5 to 178°C
Vapor Pressure: 1.4 mm Hg or 0.19 KPa at 20°C
Vapor Density (air= 1): >1
Auto Flammability: Autoignition temperature: 237°C. above 45°C explosive vapor-air mixtures maybe formed.

SECTION: 10. STABILITY AND REACTIVITY

Stability: Chemically stable.
This material presents no significant reactivity hazard.
Conditions to Avoid: Avoid sparks, flame and excessive heat.
Materials to Avoid: Strong oxidizing agents.
Flammability: Flammable liquid.
Hazardous Decomposition Products: If the product is heated, it emits acrid smoke and fumes as well as CO and CO2

SECTION: 11. TOXICOLOGICAL INFORMATION

Inhalation: Inhalation of high concentrations of vapor may result in irritation of eyes, nose and throat, headache, nausea, and dizziness.
Skin Contact: Repeated or prolonged contact can cause redness, irritation and scaling of skin (Dermatitis). Adverse skin effects should be prevented by normal care and personal hygiene.
Eye Contact: May irritate eyes.
Ingestion: Low order toxicity causing irritation of the stomach and intestines which results in nausea and vomiting.
Medical Conditions Aggravated by Exposure: May aggravate dermatitis, psoriasis and other skin conditions.
Chronic Toxicity: May cause allergic reactions on skin
Carcinogenicity Data: None of the components of this material are listed as a carcinogen.
Reproductive Toxicity: No adverse effects on reproduction are known.
Acute Toxicity Values: LD50 (oral, rat): 4400 to 5100 mg/kg



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LD50 (dermal, rabbit): greater than 5000 mg/kg
LD50 (mice): 5600 to 6600 mg/kg
Medical Information: 0.5 to 5.0 g/kg may cause human death.

Note: Toxicology information is gathered from reference and research material.

SECTION: 12. ECOLOGICAL INFORMATION

Very toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment.
Avoid any pollution of ground, surface or underground water.

SECTION: 13. DISPOSAL CONSIDERATION

Incineration or sanitary landfill in accordance with local, provincial and federal regulations. Check with disposal expert to insure compliance.

SECTION: 14. TRANSPORT INFORMATION

IMDG Code: Shipping Name: Terpene Hydrocarbons, N.O.S.
Class 3 – flammable liquid
Packing Group III
UN 2319
EmS Number: F-E-S-D

ICAO/IATA Shipping (Air): Class 3
Packaging group – 3
UN 2319

ADR/RID: Class 3 – Flammable Liquid
Number – 31c
UN Number - 2319
Label - 3

SECTION: 15. REGULATORY INFORMATION

WHMIS (Canada): Check with authority
HMIS (USA): Health Hazard – 2 Fire Hazard – 2 Reactivity – 0
California Proposition 65: This product is not known to contain chemical currently listed as carcinogens or reproductive toxins under California Proposition 65 at levels which would be subject to the proposition
EU Labeling: R10 Flammable.
Xn R22 Harmful if swallowed.
Xi R38 Irritating to skin

This product is included in the following inventories: USA (TSCA), Canada (DSL), Australia (AICS) Europe (EINECS/ELINCS/Polymer/NLP), Korea (KECL), Philippines (PICCS), and Japan (ENCS)

SECTION: 16. OTHER INFORMATION



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Revision Date: February 11, 2013

SECTION: 17. DISCLAIMER

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SAFFIRE BLUE INC.

CERTIFICATE OF ANALYSIS

Product: Orange Sweet Essential Oil
Lot No.: 11104-A35
Best Before: April, 2015
Store in air tight container; in a cool dry area; away from direct sunlight.

<u>Properties</u>	<u>Specifications</u>	<u>Results</u>
Appearance:	Yellow to orange liquid	Complies
Odor:	Characteristic orange odor	Complies
Solubility:	Soluble in ethyl alcohol, insoluble in water	Complies
Density:	0.838– 0.8500 @ 25 °C	Complies
D- Limonene:	> 90%	Complies
Aldehydes:	-	1.2%

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