



# NEW DIRECTIONS AROMATICS

## 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  
**Procedure:** Cold-pressed of the ripe orange peel  
**INCI Name:** Citrus sinensis dulcis (orange) peel oil  
**Country of Origin:** Canada

### SECTION: 1.2 COMPANY IDENTIFICATION

**Company:** New Directions Aromatics Inc.  
**Address:** 6781-Columbus Road, Mississauga. L5T 2G9 Canada  
**Telephone No:** 905-362-1915  
**FAX:** 905-362-1926  
**24 HOUR EMERGENCY TELEPHONE NUMBER: (613)-996-6666 CANUTEC**

### SECTION: 2. COMPOSITION / INFORMATION INGREDIENTS

Chemical Name	CAS Number	EINECS Number	Proportions [%w/w]
Orange Sweet Essential Oil	8008-57-9	232-433-8	100%
Contents:	d-limonene, $\alpha$ -pinene, sabinene, myrcene, linalool, d-careen, decanal, geranial		

### SECTION: 3. HAZARDS IDENTIFICATION

**Hazardous Ingredient:** **Limonene:** may be irritating to skin and eyes.  
**d-limonene:** LD50 (oral, rat): 4400 to 5100 mg/kg  
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.

### SECTION: 4. FIRST AID MEASURES

**Eye Contact:** Contact with eyes can produce burning sensation. Irrigate with water immediately, continue flushing eyes with water for 15 minutes. Seek medical attention if irritation persists.  
**Inhalation:** Remove to fresh air. Give oxygen if breathing is labored and seek medical advice. Avoid casual breathing. Signs of over exposure are dizziness and nausea.  
**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 or is convulsing.  
**Skin Contact:** Skin contact can produce irritation, or itching of the skin. Remove contaminated clothing. Wash with soap and plenty of water. Seek medical attention if irritation persists.

### SECTION: 5. FIRE FIGHTING MEASURES

**Flammable Limits:** 46 °C



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<b>Extinguishing media:</b>	Carbon Dioxide, dry chemical or foam. DO NOT USE direct water jet on burning material.
<b>Special Procedures:</b>	Determine the need to evacuate or isolate the area according to your local emergency plan.
<b>Unusual Firefighting Hazards:</b>	None identified.
<b>Protective Equipment:</b>	Self-contained breathing apparatus and protective clothing should be worn when fighting fires involving essential oils or chemicals.
<b>Combustion Product:</b>	Carbon Monoxide, Carbon Dioxide

#### SECTION: 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions:</b>	Use of self-contained breathing apparatus is recommended for any major chemical spill. Refer also to section 8.
<b>Safety Precautions:</b>	Eliminate all ignition sources. Ventilate area. Determine the need to Evacuate or isolate the area according to your local emergency plan.
<b>Environmental Precautions:</b>	Keep away from drains, surface and ground water. Report spills to appropriate Authorities if required.
<b>Methods For Cleaning Up:</b>	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

<b>Handling:</b>	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.
<b>Storage:</b>	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".

#### SECTION: 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

<b>Eyes Protection:</b>	Eye protection shield is recommended.
<b>Respiratory Protection:</b>	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).
<b>Protective Gloves:</b>	Using chemical resistant gloves is recommended.
<b>Protective Clothing:</b>	Using chemical resistant clothing is recommended.
<b>Protective Equipment:</b>	An eyewash fountain and / or safety shower should be available in the work area. Acceptable industrial hygiene practices should



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**Note:** be maintained.  
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

<b>Appearance:</b>	Orange to dark orange liquid
<b>Odor:</b>	Characteristic odor
<b>Refractive Index:</b>	1.455 – 1.495 @ 20 °C
<b>Solubility:</b>	Soluble in ethyl alcohol, insoluble in water
<b>Specific Gravity:</b>	0.8419 – 0.8455 @ 25 °C
<b>Flash Point:</b>	46 °C [Closed Cup]
<b>Melting Point:</b>	Not Available
<b>Boiling Point:</b>	Not Available
<b>Vapor Pressure</b>	Not Available
<b>Vapor Density (air= 1):</b>	>1

#### SECTION: 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Chemically stable. This material presents no significant reactivity hazard.
<b>Conditions to Avoid:</b>	Avoid sparks, flame and excessive heat.
<b>Materials to Avoid:</b>	Strong oxidizing agents.
<b>Flammability:</b>	Combustible liquid.
<b>Hazardous Polymerization:</b>	Will not occur.
<b>Hazardous Combustion or Decomposition Products:</b>	None known.

#### SECTION: 11. TOXICOLOGICAL INFORMATION

<b>Inhalation:</b>	Inhalation of high concentrations of vapor may result in irritation of eyes, nose and throat, headache, nausea, and dizziness.
<b>Skin Contact:</b>	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.
<b>Eye Contact:</b>	May irritate eyes.
<b>Ingestion:</b>	Low order toxicity causing irritation of the stomach and intestines which results in nausea and vomiting.
<b>Medical Conditions Aggravated by Exposure:</b>	May aggravate dermatitis, psoriasis and other skin conditions.
<b>Chronic Toxicity:</b>	May cause allergic reactions on skin
<b>Carcinogenicity Data:</b>	None of the components of this material are listed as a carcinogen.
<b>Reproductive Toxicity:</b>	No adverse effects on reproduction are known.
<b>Acute Toxicity Values:</b>	No data is currently available.



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### SECTION: 12. ECOLOGICAL INFORMATION

Very toxic to aquatic organism, 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

**US DOT Shipping Description:** Combustible liquid NOS 3 UN1169 PG III  
**IATA Shipping (Air):** Combustible liquid NOS 3 UN1169 PG III  
**IMDG Shipping Description:** Combustible liquid NOS 3 UN1169 PG III

### SECTION: 15. REGULATORY INFORMATION

**WHMIS (Canada):** Class D2B/B3 – Combustible liquid with flash point between 37.8°C (100°F) and 93.3°C (200°F).  
**HMIS (USA):** Health Hazard – 3 Fire Hazard – 2 Reactivity – 0  
**SARA 302/ SARA 313:** None  
**California Proposition 65:** This product does not contain chemical listed per the Safe Drinking Water and Enforcement Act of 1986.  
**EU Labeling:** R10 Flammable.  
Xn R22 Harmful if swallowed.  
Xi R38 Irritating to skin  
S36/37/38 Wear suitable protective clothing, gloves and eye/face protection.

### SECTION: 16. OTHER INFORMATION

**Revision Date: May 7, 2012**

### SECTION: 17. DISCLAIMER

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# NEW DIRECTIONS

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### CERTIFICATE OF ANALYSIS

**Product:** Orange Sweet Essential Oil  
**Lot No.:** 11104-A27  
**Manufacturing Date:** February 2012  
**Best Before:** February 2013

<u>Property</u>	<u>Specification</u>	<u>Result</u>
<b>Appearance:</b>	Orange liquid	Complies
<b>Odor:</b>	Characteristic odor	Complies
<b>Solubility:</b>	Soluble in ethyl alcohol, insoluble in water	Complies
<b>Density:</b>	0.8419 – 0.8455 @ 25 °C	Complies
<b>Refractive Index:</b>	1.455 – 1.495 @ 20 °C	Complies

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# NEW DIRECTIONS

## A R O M A T I C S

### CERTIFICATE OF ANALYSIS

**Product:** Orange Sweet Essential Oil  
**Lot No.:** 11104-A28  
**Manufacturing Date:** March 2012  
**Best Before:** March 2013

<u>Property</u>	<u>Specification</u>	<u>Result</u>
<b>Appearance:</b>	Orange liquid	Complies
<b>Odor:</b>	Characteristic odor	Complies
<b>Solubility:</b>	Soluble in ethyl alcohol, insoluble in water	Complies
<b>Density:</b>	0.8419 – 0.8455 @ 25 °C	0.8423
<b>Refractive Index:</b>	1.455 – 1.495 @ 20 °C	1.4728

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# NEW DIRECTIONS

## A R O M A T I C S

### CERTIFICATE OF ANALYSIS

**Product:** Orange Sweet Essential Oil  
**Lot No.:** 11104-A29  
**Manufacturing Date:** April 2012  
**Best Before:** April 2013

<u>Property</u>	<u>Specification</u>	<u>Result</u>
<b>Appearance:</b>	Orange liquid	Complies
<b>Odor:</b>	Characteristic odor	Complies
<b>Solubility:</b>	Soluble in ethyl alcohol, insoluble in water	Complies
<b>Density:</b>	0.8419 – 0.8455 @ 25 °C	0.8514 @ 15 °C
<b>Refractive Index:</b>	1.455 – 1.495 @ 20 °C	1.474

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