



MATERIAL SAFETY DATA SHEET
LIME ESSENTIAL OIL

MSDS

1. PRODUCT NAME AND COMPANY IDENTIFICATION

Product Name:	LIME (COLD PRESSED) ESSENTIAL OIL
Product Use:	Personal Care Formulations
Company Name:	Saffire Blue Inc.
Company Address:	1444 Bell Mill Road, Tillsonburg, ON N4G4G9 Canada
Date Issued:	12/22/2009
Emergency Telephone Number:	Chemtrec Tel: (800) 262-8200

2. COMPOSITION/INGREDIENT INFORMATION

Composition:	Cold pressed Lime essential oil	100% by weight
Latin Name:		Citrus aurantifolia
Naturalness:		100% Natural Complex Substance
Hazardous Components:		<ul style="list-style-type: none"> • Limonene: CAS #: 5989-27-5, N, Xi, R10, R3, R50/53, <=60% • Beta Pinene: CAS #: 127-91-3, N, Xn, R43, R50/53, R65, <=20% • Gamma Terpinene: CAS #: 99-85-4, Xn, R65, <+16% • Citral (Geranial and Neral): CAS #: 5392-40-5, Xi, R38, R43, <=5% • Alpha Pinene: CAS #: 80-56-8, N, Xn, R43, R50/53, R65, <=4% • Myrcene: CAS #: 123-35-3, Xn, R65, <=3% • Para Cymene: CAS #: 99-87-6, N, Xn, %51/53, R65, <=2% • Alpha Terpineol: CAS #: 98-55-5, Xi, R38, <=1%
Allergens:		Limonene (45-60%), Citral (Geranial + Neral) (<=5%), Geraniol (<=1.5%), Linalool (<=1%),
Toxicological Data:		LD50 Oral [Rat]: >5,000 mg/kg LD50 Dermal [Rabbit]: >5,000 mg/kg
CAS #:		8008-26-2
EINECS #:		90063-52-8
FEMA #:		2631

3. HAZARDS IDENTIFICATION

Primary Hazard:	Xn: Harmful N: Dangerous for environment R10: Flammable R38: Irritating to skin R43: May cause sensitization by skin contact R50/53: Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment R65: Harmful, may cause lung damage if swallowed
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Routes of Entry:	<ul style="list-style-type: none"> • Eyes • Skin • Ingestion • Inhalation
Eye Contact:	Moderate irritation may occur.
Skin Contact:	Irritation may occur with prolonged or repeated exposure.
Ingestion:	Hazardous in case of ingestion.
Inhalation:	Avoid gross inhalation of vapors.

4. FIRST AID MEASURES

Eyes:	Remove lenses if applicable. Flush with plenty of water or eye wash solution for 15 minutes holding lids apart. Get medical attention if irritation persists or if lesion is visible.
Skin:	Remove contaminated clothing. Thoroughly wash the affected area with soap and water. Flush with large quantities of water. Cover with emollient or pure vegetable oil. Seek medical attention if irritation persists.
Ingestion:	Rinse mouth with water. Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention or contact local poison control center immediately.
Inhalation:	Remove to fresh air. Seek medical attention if necessary.
	Serious Inhalation: Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.
Medical Conditions Generally Aggravated by Exposure:	No information

5. FIRE FIGHTING MEASURES

Flammability:	Flammable
Flash Point (Method Used):	>46° C
Flammable Limits	LEL: Not Established UEL: Not Established
Auto Ignition Temperature:	No information
Hazardous Combustion Products:	No information
Extinguishing Media:	<ul style="list-style-type: none"> • Dry Chemical • Carbon Dioxide
Special Firefighting Procedures:	<p>Note: Do not use water spray except to cool containers</p> <ul style="list-style-type: none"> • Wear positive pressure, self contained breathing apparatus. • Wear protective clothing to prevent contact with skin and eyes. • Remove containers from fire area. • Spray extinguishing media directly into the base of the flames. • Water is unsuitable for use on burning materials but may be used to cool containers exposed to heat.
Unusual Fire & Explosion Hazards:	None known

6. ACCIDENTAL RELEASE MEASURES (STEPS FOR SPILLS)

Personal Protection:

- Chemical splash goggles should be worn.
- If in a confined area, a certified/approved vapor respirator should be used.
- Remove individuals if they do not have respiratory/dust protection.
- Wear protective clothing and chemical resistant gloves.
- Do not smoke.

Note: Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product
Notify authorities if large amounts of product enters sewer.

Environmental Protection:

Methods for Cleaning Up:

- Remove any source of flame or sparks.
- Ventilate area
- Prevent liquid from entering the sewers.
- Recover spilled material with pump or absorb onto an inert, absorbent substrate and sweep up.
- Wash area with soap and water.

7. HANDLING AND STORAGE

Handling

Safe Handling:

- Wear safety glasses and chemical resistant gloves.
- Keep away from oxidizing agents, excessive heat, light and sources of ignition.

Storage

Requirements for Storage Areas and Containers:

- Store in a cool, dry location, in a sealed container in a well ventilated area away from sources of ignition.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Controls:

- Provide exhaust ventilation or other engineering controls to minimize vapors.
- Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection

Eye:

Chemical splash goggles or face shield should be worn.

Skin/Body:

Lab coats, boots and chemical resistant gloves should be worn.

Respiratory:

Use adequate ventilation or NIOSH-approved respiratory devices if vapor concentration is high due to heat.

Ventilation:

Handle in well ventilated areas. Ventilation meeting ACGIH Standards should be employed.

Other:

Evaluate need based on application. Slip proof shoes may be worn where spills may occur.

Work/Hygiene Practice:

Use good personal hygiene practices. Limit exposure to product whenever possible. Wash contaminated clothing or shoes before each use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:

Liquid

Color:

Clear, dark greenish yellow

Odor:

Characteristic of lime peel

Specific Gravity @ 20°C:	0.862–0.880
Refractive Index @ 20°C:	1.478–1.488
Optical Rotation @ 20°C:	+1° to +60°
Flash Point:	>46 °C
Boiling Point:	Not determined
Solubility in Water:	Insoluble

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of use
Conditions to Avoid:	Keep away from sources of ignition, flame and heat. Avoid hot work and sources of ignition on or near empty containers.
Incompatibility (Materials to Avoid):	Strong oxidizing agents, PVC
Hazardous Decomposition or Byproducts:	No decomposition if use is appropriate
Hazardous Polymerization:	Will Not Occur

11. TOXICOLOGICAL INFORMATION

Acute Toxicity Data:	LD50 Oral [Rat]: >5,000 mg/kg LD50 Dermal [Rabbit]: >5,000 mg/kg
Sensitization:	Not Available
Irritation:	Not Available
Phototoxicity:	Not Available
Carcinogenicity:	Not Regulated
Mutagenicity:	Not Regulated
Toxic Effects of Reproductive System:	Not Regulated
IFRA Restrictions:	This substance and/or some of its components are covered by the Code of Practice of the IFRA, the 42 nd Amendment of May 16, 2007, available on the internet website www.IFRAorg.org .
Other Information:	Handle this product with all precautions in light of unpredictable synergistic effects in especially sensitive people.

12. ECOLOGICAL INFORMATION

Mobility:	Low mobility in soil.
Aquatic Toxicity:	Very toxic to aquatic organisms, may cause long term effects in the aquatic environment.
Toxicity by Daphnia (CE50):	55.90 mg/l/48h
Bioaccumulation Potential:	No impact according to known information
Other Harmful Effects:	No other serious according to known information
Precautions:	Avoid release into the environment (surface water, sewers, groundwater and air in the middle and natural). Comply with national regulations and regional legislation.
Water Hazard Class (WGK) (5) according to Annex 2 of the German directive Hazardous Materials (No. Carac.: 814; 17.05.1999 organics materials):	2

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Do not put into sewer lines. Do not contaminate soil and water with waste. Dispose of according to local, state and federal regulations.

14. TRANSPORT INFORMATION

Customs Rate Code: 3301 19 20 00

Transport Classification: Land: ADR/RID:
(according to international regulations) Class 3
UN #: 1169
Packing Group: III
Label Name: Liquid Aromatic Extract

Sea: IMDG:
Class 3
UN #: 1169
Packing Group: III
Label Name: Liquid Aromatic Extract
Marine Pollutant: **YES**

Air: ICAO-TI and IATA-DGR:
Class 3
UN #: 1169
Packing Group: III
Label Name: Liquid Aromatic Extract

15. REGULATORY INFORMATION

DSCL (EEC): Xn: Harmful
N: Dangerous for environment
R10: Flammable
R38: Irritating to skin
R43: May cause sensitization by skin contact
R50/53: Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment
R65: Harmful, may cause lung damage if swallowed

S24: Avoid contact with eyes
S26: In case of contact with skin, wash area immediately with soap and water and cover the effected area with vegetable oil
S37: Wear suitable gloves
S61: Avoid release to the environment. Refer to special instructions/safety data sheet.
S62: In case of ingestion, do NOT induce vomiting. Seek medical attention immediately.

Protective Equipment: Gloves, Lab Coat, Vapor Respirator, Splash Goggles

16. ADDITIONAL INFORMATION

This information is provided for documentation purposes only.

The complete range of conditions or methods of use are beyond our control therefore we do not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate however, all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

This safety sheet cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers.