




## MATERIAL SAFETY DATA SHEET

### 01. IDENTIFICATION OF THE SUBSTANCE/PREPARATION & THE COMPANY/UNDERTAKING

<b>1.1 Product Identifier</b>					
Product Name		May Chang Litsea Cubeba) Essential Oil			
Biological Definition		Litsea Cubeba Fruit Oil is the volatile oil obtained from the berries of the Litsea cubeba, Lauraceae			
INCI Name		Illicium Verum Fruit Oil.			
Synonyms & Trade Names		Litsea Cubeba Fruit Oil			
CAS-No	68855-99-2 / 90063-59-5	EC No.	290-018-7	EINECS No.	290-018-7
<b>1.2 Relative identified uses of the substance or mixture and uses advised against</b>					
No additional data available.					
<b>1.3 Details of the supplier of the safety data sheet</b>					
NTM UK LTD, 69 Bethel Street, Norwich, Norfolk, United Kingdom NR2 1NR					
<b>1.4 Emergency Tel. No.</b>		+44(0)1603 610883			

### 02. HAZARDS IDENTIFICATION

<b>2.1 Classification of the substance or mixture</b>		
The Full Text for all Hazard Statements is displayed in Section 16.		
Classification (EC 1272/2008)		
Physical and Chemical Hazards: Not classified. Human Health: Skin Irrit. 2 - H315; Eye Irrit. 2 - H319; Skin Sens. 1 - H317; Asp. Tox. 1 - H304 Environment: Aquatic Chronic 2 - H411		
<b>2.2 Label Elements</b>		
Label in accordance with (EC) No 1272/2008		
GHS08	GHS07	GSH09
		
Signal Word		Danger
Contains		Geranial, Neral, (S)-p-mentha-1,8-diene, (+)-Citronellal, Sabinene, 1, 8 cineole, 1, alpha(-)-Pinene, Geraniol, Nerol, β-(+)-Citronellol
<b>Hazard Statements</b>		
H304	May be fatal if swallowed and enters airways.	
H315	Causes skin irritation.	
H317	May cause an allergic skin reaction.	
H319	Causes serious eye irritation.	
H411	Toxic to aquatic life with long lasting effects.	

## Precautionary Statements

P273 Avoid release to the environment.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P331 Do NOT induce vomiting

## Supplementary Precautionary Statements

P261 Avoid breathing vapour/spray.  
 P264 Wash contaminated skin thoroughly after handling.  
 P272 Contaminated work clothing should not be allowed out of the workplace.  
 P321 Specific treatment (see medical advice on this label).  
 P332+P313 If skin irritation occurs: Get medical advice/attention.  
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P337+P313 If eye irritation persists: Get medical advice/attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P391 Collect spillage.  
 P405 Store locked up.  
 P501 Dispose of contents/container in accordance with national regulations.

## 2.3 Other Hazards

PBT or vPvB according to Annex XIII	No additional data available.
Adverse physio-chemical properties	No additional data available.
Adverse effects on human health	No additional data available.

## 03. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2 Mixtures

<b>24.84 - 43.0% Geranial</b> CAS-No: 141-27-5 EC No: 205-476-5 Classification (EC 1272/2008);Skin Irrit. 2 - H315, Skin Sens. 1 - H317
<b>20.24 - 35.0% Neral</b> CAS-No: 106-26-3 EC No: 203-379-2 Classification (EC 1272/2008);Skin Irrit. 2 - H315, Skin Sens. 1 - H317
<b>2.3 - 18.0% (S)-p-mentha-1,8-diene</b> CAS-No: 5989-54-8 EC No: 227-815-6 Classification (EC 1272/2008);M factor (Acute) = 1, M factor (Chronic) = 1 Flam. Liq. 3 - H226, Skin Irrit. 2 - H315, Skin Sens. 1 - H317 Aquatic Acute 1 - H400, Aquatic Chronic 1 - H410
<b>0.01 - 7.0% (+)-Citronellal</b> CAS-No: 2385-77-5 EC No: 219-194-5 Classification (EC 1272/2008); Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1B - H317
<b>0.2 - 2.0% Sabinene</b> CAS-No: 3387-41-5 EC No: 222-212-4 Classification (EC 1272/2008);M factor (Acute) = 1 Flam. Liq. 3 - H226, Skin Irrit. 2 - H315, Eye Irrit. 2 - H319 Skin Sens. 1 - H317, STOT SE 3 - H335, Aquatic Acute 1 - H400
<b>0.74 - 1.8% 7-methyl-3-methylocta-1,6-diene</b> CAS-No: 123-35-3 EC No: 204-622-5 Classification (EC 1272/2008);Flam. Liq. 3 - H226, Skin Irrit. 2 - H315, Eye Irrit. 2 - H319 Asp. Tox. 1 - H304
<b>0.01 - 2.2% Verbenol</b> CAS-No: 473-67-6 EC No: 207-470-8 Classification (EC 1272/2008);Skin Irrit. 2 - H315
<b>0.31 - 1.7% 1,8 cineole</b> CAS-No:470-82-6 EC No: 207-431-5 Classification (EC 1272/2008);Flam. Liq. 3 - H226, Skin Sens. 1B - H317
<b>1.0 - 5.0% 1,α(-)-Pinene</b> CAS-No:7785-26-4 EC No: 232-077-3 Classification (EC 1272/2008);M factor (Chronic) = 1

Flam. Liq. 3 - H226, Skin Irrit. 2 - H315, Eye Irrit. 2 - H319 Skin Sens. 1 - H317, STOT SE 3 - H335, Aquatic Chronic 1 - H410
<b>0.01 - 2.9% Geraniol</b> CAS-No:106-24-1 EC No: 203-377-1 Classification (EC 1272/2008);Skin Irrit. 2 - H315, Eye Dam. 1 - H318, Skin Sens. 1 - H317
<b>0.01 - 5.0% 6-Methyl-5-hepten-2-one</b> CAS-No:110-93-0 EC No: 203-816-7 Classification (EC 1272/2008);Flam. Liq. 3 - H226
<b>0.01 - 3.3% Linalool</b> CAS-No:126-91-0 EC No: 204-811-2 Classification (EC 1272/2008);Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, STOT SE 3 - H33
<b>0.01 - 3.0% Beta Caryophyllene</b> CAS-No: 87-44-5 EC No: 201-746-1 Classification (EC 1272/2008);Asp. Tox. 1 - H304
<b>0.18 - 1.2% Nerol</b> CAS-No: 106-25-2 EC No: 203-378-7 Classification (EC 1272/2008);Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1 - H317
<b>0.01 - 1.5% <math>\beta</math>-(+)-Citronellol</b> CAS-No: 1117-61-9 EC No: 214-250-5 Classification (EC 1272/2008) Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1B - H317

#### 04. FIRST AID MEASURES

<b>4.1</b>	<b>Description of first aid measures</b>
Inhalation	Move the exposed person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.
Ingestion	Ingestion may cause nausea and vomiting. Seek medical attention if irritation or symptoms persist. Do not induce vomiting.
Skin Contact	Remove affected person from source of contamination. Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention if any discomfort continues.
Eye Contact	Remove victim immediately from source of exposure. Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.
<b>4.2</b>	<b>Most important symptoms and effects, both acute and delayed</b>
	No additional data available.
<b>4.3</b>	<b>Indication of any immediate medical attention and special treatment needed</b>
	No additional data available.

#### 05. FIRE-FIGHTING MEASURES

<b>5.1</b>	<b>Extinguishing Media</b>
	Do not use a direct stream of water to extinguish. Use: Powder. Carbon dioxide (CO <sub>2</sub> ).
<b>5.2</b>	<b>Special hazards arising from the product</b>
	Specific hazards: When heated and in case of fire, toxic vapours/gases may be formed.
<b>5.3</b>	<b>Advice for firefighters</b>
	Protective equipment for fire-fighters: Wear Self-contained breathing apparatus. Wear chemical protective clothing.

#### 06. ACCIDENTAL RELEASE MEASURES

<b>6.1</b>	<b>Personal precautions, protective equipment and emergency procedures</b>
	Wear protective clothing as described in Section 8 of this safety data sheet.
<b>6.2</b>	<b>Environmental Precautions</b>
	Do not discharge into drains, water courses or onto the ground.
<b>6.3</b>	<b>Methods and material for containment and cleaning up.</b>
	Absorb with inert, non-combustible, inorganic absorbent material, sweep up and remove to an approved disposal container. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking.
<b>6.4</b>	<b>Reference to other sections</b>


	No additional data available.
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## 07. HANDLING AND STORAGE

<b>7.1</b>	<b>Precautions for safe handling</b>
	Avoid spilling, skin and eye contact. Adopt best manual handling considerations when handling, carrying and dispensing.
<b>7.2</b>	<b>Conditions for safe storage, including any incompatibilities</b>
	Store in tightly closed original container in a dry, cool and well-ventilated place. Keep in original container. Keep away from heat, sparks and open flame
<b>7.3</b>	<b>Specific end use(s)</b>
	No additional data available

## 08. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1	Control parameters
DNEL	<b>7-methyl-3-methyleneocta-1,6-diene (CAS: 123-35-3)</b> Workers - Dermal; Long term systemic effects: 0.83 mg/kg Workers - Inhalation; Long term systemic effects: 5.83 mg/m <sup>3</sup> General population - Dermal; Long term systemic effects: 0.42 mg/kg General population - Inhalation; Long term systemic effects: 1.25 mg/m <sup>3</sup> - STP; 0.2 mg/l - Soil; 1.015 mg/kg - Fresh water; 0.00028 mg/l - Marine water; 0.0008 mg/l - Sediment (Freshwater); 5.022 mg/kg - Sediment (Marine water); 0.502 mg/kg
PNEC	
DNEL	
PNEC	
	<b>1, 8 cineole (CAS: 470-82-6)</b> DNEL Workers - Dermal; Long term systemic effects: 2 mg/kg General population - Oral; Long term systemic effects: 600 mg/kg General population - Dermal; Long term systemic effects: 1 mg/kg General population - Inhalation; Long term systemic effects: 1.74 mg/m <sup>3</sup> PNEC - STP; 10 mg/l - Soil; 0.2 mg/kg - Intermittent release; 0.57 mg/l - Fresh water; 0.057 mg/l - Marine water; 0.0057 mg/l - Sediment (Freshwater); 0.06732 mg/kg - Sediment (Marine water); 0.00673 mg/kg

8.2 Exposure controls	
Protective Equipment	
	
Process Conditions	Safety shower and eye bath.
Engineering Measures	Provide adequate ventilation. Respiratory equipment. Self-contained breathing apparatus.
Respiratory Equipment	Protection not required if good ventilation is maintained. Use inhalation protection in poorly ventilated areas.
Hand Protection	Use suitable protective gloves if risk of skin contact.
Eye Protection	Wear approved safety goggles.
Other Protection	Wear rubber apron.
Hygiene Measures	Remove contaminated clothing and wash the skin thoroughly with soap and water after work.
Personal Protection	Use personal protection according to Directive 89/686/EEC.
Skin Protection	Wear apron or protective clothing in case of splashes.
Environmental Exposure Controls	Avoid discharging into drainage water. Only eliminate by authorised companies.

## 09. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties	
Appearance	Mobile Liquid
Colour	Pale yellow to yellow.
Odour	Characteristic.
Relative Density	0.902 - 0.913 @ 20°C
Flash Point (°C)	65°
Refractive Index	1.475 - 1.490 @ 20°C
Melting Point (°C)	No additional data available.
Boiling Point (°C)	~83.
Vapour Pressure	No additional data available.
Solubility in Water @20°C	Insoluble in water.
Auto-ignition temperature (°C)	No additional data available.
9.2 Other information	
No additional data available.	

## 10. STABILITY AND REACTIVITY

<b>10.1 Reactivity</b>
No additional data available.
<b>10.2 Chemical stability</b>
Stable under the recommended handling and storage conditions.
<b>10.3 Possible hazardous reactions</b>
No additional data available.
<b>10.4 Conditions to Avoid</b>
Avoid heat, sparks and open flames.
<b>10.5 Incompatible materials</b>
Materials To Avoid: Strong acids, alkali or oxidising agents.
<b>10.6 Hazardous Decomposition Products</b>
In case of fire, dangerous decomposition products can be generated, such as carbon monoxide and dioxide and nitrogen fumes and oxides.

## 11. TOXOLOGICAL INFORMATION

<b>11.1 Information on toxicological effects</b>	
Acute Toxicity	There is no data available on this product. It must be considered and handled and should be dealt with the highest possible caution.
Skin corrosion / irritation	No additional data available.
Serious eye damage / irritation	No additional data available.
Respiratory or skin sensitisation	No additional data available.
Germ Cell Mutagenicity	No additional data available.
Carcinogenicity	No additional data available.
Reproductive toxicity	No additional data available.
STOT-single exposure	No additional data available.
STOT-repeated exposure	No additional data available.
Photo-toxicity	No additional data available.
Other Information	No additional data available.



## 12. ECOLOGICAL INFORMATION

<b>12.1 Toxicity</b>
Acute toxicity - fish LL <sub>50</sub> , 96 hour: 4.2 mg/l, Onchorhynchus mykiss (Rainbow trout) Acute toxicity– aquatic invertebratesEL50, 48 hours: 4.2 mg/l, Daphnia magna.
<b>12.2 Persistence &amp; degradability</b>
Expected to be readily biodegradable
<b>12.3 Bioaccumulation Potential</b>
Bioaccumulative potential: No data available on bioaccumulation.
<b>12.4 Mobility in soil</b>
No additional data available.
<b>12.5 Results of PBT and vPvB Assessment</b>
No additional data available.
<b>12.6 Other adverse effects</b>
No additional data available.

## 13. DISPOSAL CONSIDERATIONS

<b>13.1 Waste treatment methods</b>
Dispose of in compliance with all local and national regulations.

## 14. TRANSPORT INFORMATION

<b>14.1 UN number</b>	
UN No. Road	3082
UN No. SEA	3082
UN No. AIR	3082
<b>14.2 UN proper shipping name</b>	
Environmentally Hazardous Substance Liquid N.O.S	
<b>14.3 Transport hazard class(es)</b>	
ADR/RID/ADN Class:	9 Miscellaneous dangerous substances and articles.
ADR/RID Classification Code	M6
ICAO Class/Division:	9
IMDG Class:	9
Transport Labels	
	
<b>14.4 Packing group</b>	
ADR/RID/ADN Packing group	III
IMDG Packing group	III
ICAO Packing group	III
<b>14.5 Environmental hazards</b>	
Environmentally Hazardous Substance/Marine Pollutant	
	
<b>14.6 Special precautions for user</b>	
EMS F-A-S-F	
ADR Transport Category3	
Emergency Action Code •3Z	
Hazard No. (ADR) 90 Environmentally hazardous substance; miscellaneous dangerous substances.	
Tunnel Restriction Code (E)	
<b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC code</b>	
No additional data available.	

## 15. REGULATORY INFORMATION

<b>15.1</b>	<b>Safety, health and environmental regulations/legislation specific for the substance or mixture</b>
	<p>Statutory Instruments            The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716). Guidance Notes            Workplace Exposure Limits EH40. CHIP for everyone HSG(108).            EU Legislation            Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.</p>
<b>15.2</b>	<b>Chemical safety assessment</b>
	No additional information available.

## 16. OTHER INFORMATION

Hazard and/or Precautionary Statements in Full	<p>H226 Flammable liquid and vapour.            H304 May be fatal if swallowed and enters airways.            H315 Causes skin irritation.            H317 May cause an allergic skin reaction.            H318 Causes serious eye damage.            H319 Causes serious eye irritation.            H335 May cause respiratory irritation.            H400 Very toxic to aquatic life.            H410 Very toxic to aquatic life with long lasting effects.            H411 Toxic to aquatic life with long lasting effects</p>
Other Information	None.

**DISCLAIMER:** This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.