




## MATERIAL SAFETY DATA SHEET

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

<b>1.1 Product Identifier</b>				
Product Name		Lemon Verbena Essential Oil		
Biological Definition		The volatile oil steam distilled from the leaves of <i>Thymus hiemalis</i> .		
INCI Name		Thymus Hiemalis Leaf Oil (Not an official INCI name)		
Synonyms & Trade Names		Lemon Verbena Oil		
CAS-No		EC No.		EINECS No.
<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. H318 Causes serious eye damage H315 Causes skin irritation. H317 May cause an allergic skin reaction.. 2 - H351 Environment: H411 Toxic to aquatic life with long lasting effects.		
<b>2.2 Label Elements</b>		
Label in accordance with (EC) No 1272/2008		
GHS05 	GHS07 	GHS09 
Signal Word		Danger
Contains		Geraniol
<b>Hazard Statements</b>		
H318 Causes serious eye damage H315 Causes mild skin irritation. H317 May cause an allergic skin reaction. H411 Toxic to aquatic life with long lasting effects		

Precautionary Statements
P280: Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310: Immediately call a POISON CENTER/doctor. P501: Dispose of contents in accordance with local, state or national legislation. P261: Avoid breathing dust/fume/gas/mist/vapours/spray. P333+P313: If skin irritation or rash occurs: Get medical advice/attention. P362+P364: Take off contaminated clothing. And wash it before reuse. P302+P352: IF ON SKIN: Wash with plenty of water. P273: Avoid release to the environment. P391: Collect spillage.
Supplementary Precautionary Statements
P264: Wash hands and exposed skin thoroughly after handling. P332+P313: If skin irritation occurs: Get medical advice/attention.

## 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>≤70.2% Citral</b> CAS-No.: 5392-40-5 EC No.: 226-394-6 Classification (EC 1272/2008) Skin Irrit. 2 - H315; Skin Sens. 1 - H317, Eye Irrit. 2 - H319
<b>≤7.59% Geraniol</b> CAS-No.: 106-24-1 EC No.: 203-377-1 Classification (EC 1272/2008) Skin Irrit. 2 – H315, Skin Sens. 1 - H317, Eye Dam. 1 – H318
<b>≤ 4.00 Citronellal</b> CAS-No.: 106-23-0 EC No.: 203-376-6 Classification (EC 1272/2008) Skin Irrit. 2 – H315, Skin Sens. 1 – H317, Eye Irrit. 2 – H319, Aquatic Chronic 2 – H411
<b>≤ 3.8% d-Limonene</b> CAS-No.: 5989-27-5 EC No.: 227-813-5 Classification (EC 1272/2008) Flam. Liq. 3 - H226; Asp. Tox. 1 - H304; Skin Irrit. 2 - H315; Skin Sens. 1 - H317; Aquatic Acute 1 – H400, Aquatic Chronic 1 - H410
<b>≤ 0.25% Citronellol</b> CAS-No.: 106-22-9 EC No.: 203-375-0 Classification (EC 1272/2008) Skin Irrit. 2 – H315, Skin Sens. 1B - H317, Eye Irrit. 2 – H319
<b>≤ 0.33% Linalool</b> CAS-No.: 78-70-6 EC No.: 201-134-4 Classification (EC 1272/2008) Skin Irrit. 2 – H315
<b>≤ 0.11% alpha - Pinene</b> CAS-No.: 80-56-8 EC No.: 201-291-9 Classification (EC 1272/2008) Flam. Liq. 3 – H226, Asp. Tox. 1 - H304, Skin Irrit. 2 - H315, Skin Sens. 1A – H317, Aquatic Acute 1 - H400, Aquatic Chronic 1 – H410
<b>≤ 0.17% beta- Pinene</b> CAS-No.: 127-91-3 EC No.: 204-872-5 Classification (EC 1272/2008) Flam. Liq. 3 – H226, Asp. Tox. 1 - H304, Skin Irrit. 2 - H315, Skin Sens. 1A – H317, Aquatic Acute 1 - H400, Aquatic Chronic 1 – H410
<b>≤ 0.16% Sabinene</b> CAS-No.: 3387-41-5 EC No.: 222-212-4 Classification (EC 1272/2008) Flam. Liq. 3 – H226, Asp. Tox. 1 – H304
<b>≤ 0.14% Myrcene</b> CAS-No.: 123-35-3 EC No.: 204-622-5 Classification (EC 1272/2008) Flam. Liq. 3 – H226, Asp. Tox. 1 – H304, Skin Irrit. 2 - H315, Eye Irrit. 2 – H315, Eye Irrit. 2 – H319
<b>≤ 0.01% Methyl Eugenol</b> CAS-No.: 93-15-2 EC No.: 202-223-0 Classification (EC 1272/2008) Acute Tox. 4 – H302, Muta. 2 H341, Carc. 2 – H351

## 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>
	Powder. Carbon dioxide (CO <sub>2</sub> ), Foam
<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.

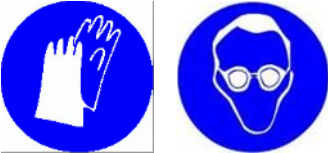
## 06. ACCIDENTAL RELEASE MEASURES

<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.

## 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

<b>8.1 Control parameters</b>	
Unregulated. No exposure limits noted for ingredient.	
<b>8.2 Exposure controls</b>	
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

<b>9.1 Information on basic physical and chemical properties</b>	
Appearance	Mobile Liquid
Colour	Pale yellow to yellow.
Odour	Characteristic Fresh, lemony, sweet and fruity
Relative Density	0.882 - 0.892
Flash Point (°C)	>63
Refractive Index	1.480 - 1.490
Melting Point (°C)	No additional data available.
Boiling Point (°C)	No additional data available.
Vapour Pressure	No additional data available.
Solubility in Water @20°C	Insoluble in water.
Auto-ignition temperature (°C)	No additional data available.
<b>9.2 Other information</b>	
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: PVC
<b>10.6 Hazardous Decomposition Products</b>
No decomposition if used as directed.

## 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	Causes skin irritation
Serious eye damage / irritation	Causes serious eye damage
Respiratory or skin sensitisation	May cause an allergic skin reaction.
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>
Toxic to aquatic life with long lasting effects.
<b>12.2 Persistence &amp; degradability</b>
Degradability: No additional data available.
<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>
Do not allow product to enter streams, sewers or other waterways

## 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	1308
UN No. SEA	1308
UN No. AIR	1308
<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.
ICAO Class/Division:	9
IMDG Class:	9
Transport Labels	
	
<b>14.4 Packing group</b>	
ADR/RID/ADN Packing group	
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	
Hazard No. (ADR) 9	
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.            H302 Harmful if swallowed.            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.            H341 Suspected of causing genetic defects.            H351 Suspected of causing cancer            H400 Very toxic to aquatic life with long lasting effects.            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.