


MATERIAL SAFETY DATA SHEET

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

1.1 Product Identifier					
Product Name		Clove Essential Oil			
Biological Definition		Juniperus Virginiana Wood Oil is an essential oil obtained from the leaves of <i>Eugenia caryophyllus</i>			
INCI Name		Eugenia Caryophyllus leaf Oil			
Synonyms & Trade Names		Clove Leaf Essential Oil			
CAS-No	8000-34-8	EC No.	284-638-7	EINECS No.	284-638-7
1.2 Relative identified uses of the substance or mixture and uses advised against					
No additional data available.					
1.3 Details of the supplier of the safety data sheet					
NTM UK LTD, 69 Bethel Street, Norwich, Norfolk, United Kingdom NR2 1NR					
1.4 Emergency Tel. No.			+44(0)1603 610883		

02. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture	
The Full Text for all Hazard Statements is displayed in Section 16.	
Classification (EC 1272/2008)	
UN-GHS: ATO 5(2650); ATD 5(4900); AH 1; SCI 3; EDI 2A; SS 1; EH A2 EU-CLP: AH 1, SS 1, EDI 2	
2.2 Label Elements	
Label in accordance with (EC) No 1272/2008	
GHS07	
	
Signal Word	Danger
Contains	Eugenol, eugenyl acetate
Hazard Statements	
H304 May be fatal if swallowed and enters airways. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation	

Precautionary Statements

P301/310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 P331 Do NOT induce vomiting
 P262 Do not get in eyes, on skin or on clothing
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P305/351/338 IF IN EYES: Rinse cautiously with water for several minutes.
 Remove contact lenses, if present and easy to do. Continue rinsing.

Supplementary Precautionary Statements

None

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	May cause sensitisation/irritation by skin contact

03. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

73% Eugenol UN-GHS: ATO 5(2300); SCI 3; EDI 2A; SS 1; EH A2

16% beta-Caryophyllene UN-GHS: SCI 3

8% Eugenyl acetate UN-GHS: ATO 4(1670); SCI 3

04. FIRST AID MEASURES

4.1	Description of first aid measures
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.
4.2	Most important symptoms and effects, both acute and delayed No additional data available.
4.3	Indication of any immediate medical attention and special treatment needed No additional data available.

05. FIRE-FIGHTING MEASURES

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


06. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures	Wear protective clothing as described in Section 8 of this safety data sheet.
6.2 Environmental Precautions	Do not discharge into drains, water courses or onto the ground.
6.3 Methods and material for containment and cleaning up.	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.
6.4 Reference to other sections	No additional data available.

07. HANDLING AND STORAGE

7.1 Precautions for safe handling	Avoid spilling, skin and eye contact. Adopt best manual handling considerations when handling, carrying and dispensing.
7.2 Conditions for safe storage, including any incompatibilities	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.
7.3 Specific end use(s)	No additional data available.

08. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters	
Ingredient Comments :	No exposure limits noted for ingredient.
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, sometimes slightly viscous
Colour	Yellow to light brown
Odour	Spicy, eugenolic
Relative Density	
Flash Point (°C)	Not Available
Refractive Index	Not Available
Melting Point (°C)	Not Available
Boiling Point (°C)	Not Available
Vapour Pressure	Not Available
Solubility in Water @20°C	Not Available
Auto-ignition temperature (°C)	No additional data available.

9.2 Other information	
No additional data available.	

10. STABILITY AND REACTIVITY

10. Reactivity 1	No additional data available.
10. Chemical stability 2	Stable under the recommended handling and storage conditions.
10. Possible hazardous reactions 3	Liable to cause smoke & acrid fumes during combustion: carbon monoxide, carbon dioxide
10. Conditions to Avoid 4	Avoid heat, sparks and open flames.
10. Incompatible materials 5	Materials To Avoid: Strong acids, alkali or oxidising agents.
10. Hazardous Decomposition Products	In case of fire, dangerous decomposition products can be generated, such as carbon monoxide and dioxide and nitrogen fumes and oxides.

11. TOXOLOGICAL INFORMATION

11.1 Information on toxicological effects	
Acute Toxicity	Dermal LD50 skn-rbt > 5g/kg (Moreno 1973) Acute oral LD50 orl-rat: 2.65g/kg (Moreno 1973)
Skin corrosion / irritation	Not hazard-listed under EC 1272/2008 guidelines
Serious eye damage / irritation	Serious eye damage/irritation Hazard Category 2 under EC 1272/2008 guidelines
Respiratory or skin sensitisation	Skin sensitisation Hazard Category 1 under EC# 1272/2008 guidelines
Germ Cell Mutagenicity	Not listed as mutagenic
Carcinogenicity	Not listed as carcinogenic
Reproductive toxicity	Not a reprotoxicant
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

12.1 Toxicity	Do not discharge into the environment. Not ecotoxicity not hazard listed under EC 1272/2008
12.2 Persistence & degradability	Degradability: No additional data available.
12.3 Bioaccumulation Potential	Bioaccumulative potential: No data available on bioaccumulation.
12.4 Mobility in soil	No additional data available.
12.5 Results of PBT and vPvB Assessment	No additional data available.
12.6 Other adverse effects	Do not allow product to enter streams, sewers or other waterways.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Dispose of in compliance with all local and national regulations.

14. TRANSPORT INFORMATION

14.1 UN number	
UN No. Road	UN3082
UN No. SEA	UN3082
UN No. AIR	UN3082
14.2 UN proper shipping name	
None	
14.3 Transport hazard class(es)	
ADR/RID/ADN Class:	
ICAO Class/Division:	
IMDG Class:	
Transport Labels	
Not subject to regulation	
14.4 Packing group	
ADR/RID/ADN Packing group	Not Applicable
IMDG Packing group	Not Applicable
ICAO Packing group	Not Applicable
14.5 Environmental hazards	
14.6 Special precautions for user	
None	
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC code	
No additional data available.	

15. REGULATORY INFORMATION

15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture
	<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>
15.2	Chemical safety assessment
	No additional information available.

16. OTHER INFORMATION

Hazard and/or Precautionary Statements in Full	<p>R36 Irritating to eyes R43 May cause sensitisation by skin contact R65 Harmful: may cause lung damage if swallowed H304 May be fatal if swallowed and enters airways H317 May cause an allergic skin reaction H319 Causes serious eye irritation Complies with REACH guidance for SDS as circulated by ECHA 2011</p>
Other Information	
Revision Date	None.
Reason for revision	20/10/2016
Rev No/Repl, SDS Generated	Updated New Format SDS.
	02

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