

1. Identification of the substance/preparation and of the company/undertaking

Identification of the product

Product name: **Clove (*Eugenia caryophyllus*)**

Manufacturer/supplier identification

Company: Calmer Solutions Limited®
Hadresham
Woolborough Lane
Outwood
Surrey
RH1 5QR.
Telephone: +44 (0)1342 844658
Telefax: +44 (0)1737 306065

Emergency Telephone No: Please contact your local NHS 111

2. Composition/information on main ingredients

Main ingredients: Essential oil of Clove

CAS No USA: 8015-97-2

EINECS No: 284-638-7

FEMA No: 2328

CoE No: 188n

Concentration: 100%

3. Hazards identification



Main hazards:	Harmful
Health effect - eyes:	Irritating to eyes
Health effect - skin:	Irritating to Skin
Health effect - ingestion:	A large dose may cause irritation of mouth, throat and digestive tract. May cause lung damage if swallowed.
Health effect – inhalation:	May cause irritation to the lungs

4. First aid measures

First aid - eyes:	Immediately flood the eye with plenty of water for at least 10 minutes holding eye open. OBTAIN MEDICAL ATTENTION.
First aid - skin:	Wash skin thoroughly with soap and water. Contaminated clothing should be washed before re-use. OBTAIN MEDICAL ATTENTION.
First aid - ingestion:	Immediately wash out mouth with water. Keep warm and at rest. Do not induce vomiting. OBTAIN MEDICAL ATTENTION.
First aid - inhalation:	Remove from exposure. If breathing is difficult give oxygen.
Advice to physicians -	Treat symptomatically

5. Fire fighting measures

- Suitable extinguishing media:** Use carbon dioxide, foam or dry powder.
- Unsuitable extinguishing media:** Great care should be taken if using a water jet.
- Special hazards of product:** This product may give rise to hazardous fumes in fire.
- Protective equipment for fire fighting:** If fire severe wear self contained breathing apparatus.

6. Accidental release measures

Personal protection: Wear appropriate protective clothing.

Environmental precautions: Prevent the material from entering drains or water courses. Advise authorities if such spillage does occur.

Spillage: Contain spillage using earth, sand or other inert absorbent material.

7. Handling and storage

Handling: Keep container tightly closed when not in use. Use only in well ventilated area. Avoid contact with eyes, skin and clothing. Emergency showers and eye wash facilities must be readily available.

Storage: Suitable storage is stainless steel, glass and aluminium. Store in a cool, dry, dark place, ideally below 0°C.

8. Exposure controls/personal protection

As appropriate to quantity handled

Respirator: Not normally required

Hand protection: PVC or rubber gloves

Body protection: If danger of splashing wear PVC or rubber apron

Eye Protection: Chemical goggles must be worn during handling

Engineering control measures: Engineering methods to prevent or control exposure are preferred. Methods include personnel segregation, mechanical ventilators and control of process conditions.

9. **Physical and chemical properties**

Form: Mobile liquid
Colour: Yellow
Odour: Strong, spicy, phenolic

Boiling temperature: No data
Density (kg/m³): 1.03-1.063
Optical Rotation: 0 to -2
Vapour pressure: No data
- Density: No data
Solubility in water: Completely insoluble

Flash point: 117°C
Explosion limits: lower: Unknown
upper: Unknown
Ignition temperature: Unknown

10. **Stability and reactivity**

Stability: Stable under normal conditions.

Incompatibility: Avoid contact or contamination with strong acids, alkalis or oxidising agents.

Hazardous Combustion & Decomposition: Combustion will lead to oxides of carbon.

11. **Toxicological information**

Acute toxicity: Acute oral LD50: 1.37g/Kg. Moderate irritant, strong mucous membrane irritant.

12. **Ecological information**

Mobility: No part of this product will dissolve rapidly in water

Bioaccumulation: Product not expected to bioaccumulate

Exoticity: No data

13. Disposal considerations

Product disposal: Dispose of in accordance with all applicable local and national regulations.

Container disposal: Labels should not be removed from containers until they have been cleaned. Contaminated containers should not be treated as household waste. Containers should be cleaned using appropriate methods and then re-used (re-cycled) or disposed of by landfill or incineration as appropriate.

14. Transport information

Description: Essential Oil

UN-No.: **RID:**

Class: **Packing Group:**

15. Regulatory information

Labelling according to EC directives



R-phrases: R21 Harmful in contact with skin
(Risk) R22 Harmful if swallowed
R38 Irritating to skin

S-phrases: S36 Wear suitable protective clothing
(Safety) S37 Wear suitable gloves
S20 When using do not eat or drink

Einecs Listing: All components are either Einecs listed or classified as polymers

16. Other information

The information and recommendations contained in this data sheet are believed to be accurate and represent the best information currently available to us. No warranty, guarantee or representation is made by Calmer Solutions Limited[®] as to the correctness or sufficiency of the information and recommendations in this data sheet, nor can it be assumed that all possible safety measures are contained in this data sheet or that additional measures may not be required under varying conditions and circumstances.

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Please ensure that this Safety Data Sheet is passed to the appropriate person(s) in your company, who is (are) capable of acting on the information.