

Revision Date 18-Jun-2012

Revision Number 3

**SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE  
COMPANY/UNDERTAKING****Product Identifier**

**Product Description:** Clove oil  
**Cat No.** C/6280/05

**Relevant identified uses of the substance or mixture and uses advised against**

**Recommended Use** Laboratory chemicals  
**Uses advised against** No Information available

**Details of the supplier of the safety data sheet****Company**

Fisher Scientific UK  
Bishop Meadow Rd  
Loughborough, Leicestershire, Great Britain  
LE115RG  
Tel: 01509 231166

**E-mail address** begel.sdsdesk@thermofisher.com

**Emergency Telephone Number**

Tel: 01509 231166  
Chemtrec US: (800) 424-9300  
Chemtrec EU: 001 (202) 483-7616

**SECTION 2. HAZARDS IDENTIFICATION****Classification of the substance or mixture****REGULATION (EC) No 1272/2008**

Skin Corrosion/irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

*For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16*

**Symbol(s)** Xi - Irritant  
**R-phrases(s)** none  
**Risk Combination Phrases** R36/38 - Irritating to eyes and skin

**Label Elements**

Clove oil

Revision Date 18-Jun-2012

**SECTION 2. HAZARDS IDENTIFICATION**

**Signal Word**
**Warning**
**Hazard Statements**

H315 - Causes skin irritation

H319 - Causes serious eye irritation

**Precautionary Statements - EU (§28, 1272/2008)**

P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection

P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray

P302 + P352 - IF ON SKIN: Wash with plenty of soap and 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

**Other Hazards**

No information available.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	EC-No.	Weight %	CAS-No	67/548/EEC Classification	CLP Classification - Regulation (EC) No 1272/2008	REACH No.
Oils, clove 8000-34-8		100	8000-34-8	Xi;R36/38	Eye irrit. 2 (H319) Skin Irrit. 2 (H315)	-

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

**SECTION 4. FIRST AID MEASURES**
**Description of first aid measures**
**Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

Clove oil

Revision Date 18-Jun-2012

<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.
<b>Ingestion</b>	Do not induce vomiting. Obtain medical attention.
<b>Inhalation</b>	Move to fresh air. If breathing is difficult, give oxygen. Obtain medical attention.
<b>Notes to Physician</b>	Treat symptomatically

**SECTION 5. FIRE-FIGHTING MEASURES****Extinguishing media****Suitable Extinguishing Media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Extinguishing media which must not be used for safety reasons**

No information available.

**Special hazards arising from the substance or mixture**

Thermal decomposition can lead to release of irritating gases and vapors

**Advice for fire-fighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

**SECTION 6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation. Use personal protective equipment.

**Environmental precautions**

Should not be released into the environment.

**Methods and material for containment and cleaning up**

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal..

**SECTION 7. HANDLING AND STORAGE****Precautions for Safe Handling**

Wear personal protective equipment. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation.

**Conditions for safe storage, including any incompatibilities**

Clove oil

Revision Date 18-Jun-2012

Keep containers tightly closed in a dry, cool and well-ventilated place.

**Specific End Uses****SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control parameters**

**Exposure limits** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Biological limit values** This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

**Derived No Effect Level (DNEL)** No information available.

**Predicted No Effect Concentration (PNEC)** No information available.

**Exposure controls**

**Engineering Measures** Ensure that eyewash stations and safety showers are close to the workstation location Ensure adequate ventilation, especially in confined areas

**Personal protective equipment****Eye Protection**

Goggles

**Hand Protection**

Protective gloves

**Skin and body protection**

Wear appropriate protective gloves and clothing to prevent skin exposure

**Respiratory Protection**

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice

**Environmental exposure controls** No information available.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES****Physical State**

Liquid

**Appearance**

Light yellow

**odor**

No information available

**Boiling Point/Range**

250°C / 482°F

**Melting Point/Range**

No information available.

**Flash Point**

No information available.

**Autoignition Temperature**

No information available.

**Water Solubility**

Insoluble

**Density**

1.06

**SECTION 10. STABILITY AND REACTIVITY****Reactivity**

**Clove oil**
**Revision Date 18-Jun-2012**
**Chemical Stability**

Stable under normal conditions.

**Possibility of Hazardous Reactions**
**Hazardous Polymerization  
Hazardous Reactions .**

 Hazardous polymerization does not occur.  
None under normal processing..

**Conditions to Avoid**

Incompatible products, Excess heat.

**Incompatible Materials**

Strong oxidizing agents.

**Hazardous Decomposition Products**

 Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

<b>SECTION 11. TOXICOLOGICAL INFORMATION</b>
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**Information on Toxicological Effects**
**Acute Toxicity**
**Product Information**

See actual entry in RTECS for complete information.

**Component Information**
**Component**

Oils, clove

	<b>LD50 Oral</b>	<b>LD50 Dermal</b>	<b>LC50 Inhalation (Dust)</b>
	1370 mg/kg ( Rat )	1200 mg/kg ( Rabbit )	

**Chronic Toxicity**
**Carcinogenicity**

There are no known carcinogenic chemicals in this product

**Sensitization**

No information available.

**Mutagenic Effects**

No information available

**Reproductive Effects**

No information available.

**Developmental Effects**

No information available.

**Target Organs**

No information available.

**Endocrine Disruptor Information**

None known

Clove oil

Revision Date 18-Jun-2012

**SECTION 12. ECOLOGICAL INFORMATION****Toxicity****Ecotoxicity effects**

Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants

**Persistence and degradability**

No information available

**Bioaccumulative potential**

No information available.

**Mobility in soil**

No information available.

**Results of PBT and vPvB assessment****Other adverse effects**

No information available

**SECTION 13. DISPOSAL CONSIDERATIONS****Waste treatment methods****Waste from Residues / Unused Products**

Dispose of in accordance with local regulations

**Contaminated Packaging**

Empty containers should be taken to local recyclers for disposal

**SECTION 14. TRANSPORT INFORMATION****IMDG/IMO**

Not regulated

**ADR**

Not regulated

**IATA**

Not regulated

**SECTION 15. REGULATORY INFORMATION****Safety, health and environmental regulations/legislation specific for the substance or mixture****International Inventories**

Clove oil

Revision Date 18-Jun-2012

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Oils, clove	-	-		X	X	-	X	-	X	X	X

**Legend****TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**ENCS** - Japan Existing and New Chemical Substances**CHINA** - China Inventory of Existing Chemical Substances**AICS** - Inventory of Chemical Substances**KECL** - Existing and Evaluated Chemical Substances**Chemical Safety Assessment****SECTION 16. OTHER INFORMATION****Full text of R-phrases referred to under sections 2 and 3**

R36/38 - Irritating to eyes and skin

**Revision Date** 18-Jun-2012**Revision Summary****Reason for revision** (M)SDS sections updated, 8, 9.**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006****Disclaimer**

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet