

Safety Data Sheet CLOVE OIL

SDS no. JSJT4BFF • Date of issue: 2024-01-14

SECTION 1: Identification

GHS Product identifier

Product name CLOVE OIL

Other means of identification

CLOVE OIL LR CL032
Caryophyllus oil
Oil of cloves

Recommended use of the chemical and restrictions on use

Medicine (local), flavouring, dentistry, perfumery, confectionery, soaps and laboratory reagent.

Supplier's details

Name ChemSupply Australia Pty Ltd
Address 38-50 Bedford Street
5013 Gillman South Australia
Australia

Telephone 08 8440 2000
email www.chemsupply.com.au

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

Not classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Serious eye damage/eye irritation, Cat. 2A
- Skin corrosion/irritation, Cat. 2
- Skin sensitizer, Cat. 1

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- Aspiration hazard, Cat. 1

GHS label elements, including precautionary statements

Pictograms



Signal word

Warning

Hazard statement(s)

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

Precautionary statement(s)

P261

Avoid breathing dust/fume/gas/mist/vapors/spray.

P264

Wash hands thoroughly after handling.

P272

Contaminated work clothing should not be allowed out of the workplace.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310

IF SWALLOWED: Immediately call a POISON CENTER/doctor/phycsian

P302+P352

IF ON SKIN: Wash with plenty of water/soap

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321

Specific treatment (see ... on this label).

P331

Do NOT induce vomiting.

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.

P405

Store locked up.

P501

Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

An essential oil distilled from cloves.

Components

Component	CAS no.	Concentration
Clove oil (EC no.: 616-772-2)	8000-34-8	<= 100 % (weight)
CLASSIFICATIONS: Aspiration hazard, Cat. 1; Skin sensitizer, Cat. 1; Serious eye damage/eye irritation, Cat. 2A; Skin corrosion/irritation, Cat. 2. HAZARDS: 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.		

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice

First Aid Facilities: Maintain eyewash fountain and drench facilities in work area.

If inhaled	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Immediately obtain medical aid if cough or other symptoms appear.
In case of skin contact	Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. Seek medical attention if irritation develops or persists.
In case of eye contact	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. If rapid recovery does not occur, obtain medical attention
If swallowed	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. Give water to drink. DO NOT INDUCE VOMITING. Seek medical advice if symptoms persist.

Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of immediate medical attention and special treatment needed, if necessary

For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Specific Methods: Small fire: Use dry chemical, CO₂, water spray or foam.

Large fire: Use water spray, fog or foam.

Specific hazards arising from the chemical

Fire or heat may produce irritating, poisonous and/or corrosive gases.

Special protective actions for fire-fighters

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid inhalation, contact with skin, eyes and clothing.

Wear protective clothing specified for normal operations (see Section 8)

Methods and materials for containment and cleaning up

Absorb or contain liquid with sand, earth or spill control material. Shovel up using non sparking tools and place in a labelled, sealable container for subsequent safe disposal. Put leaking containers in a labelled drum or overdrum.

Prevent from entering into drains, ditches, rivers or the sea.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid prolonged or repeated contact with skin, eyes and clothing . Avoid breathing vapour, spray or mists. Only use in well-ventilated areas. Keep container tightly closed when not in use.

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Conditions for safe storage, including any incompatibilities

Store in a cool, dry place. Store away from sources of heat or ignition. Store away from oxidizing agents. Keep containers closed at all times. Light sensitive.

SECTION 8: Exposure controls/personal protection

Control parameters

CAS: 8000-34-8

Clove oil

NIOSH: 10 mg/m³ REL-ST inhalation; 5 mg/m³ REL-TWA inhalation

Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection

Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Body protection

Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	Yellow liquid (becomes darker and thicker with age).
Color	No data available.
Odor	Strong odour of cloves.
Odor threshold	No data available.
Melting point/freezing point	No data available.
Boiling point or initial boiling point and boiling range	Approx. 250 °C
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	115 - 117 °C
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.

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pH	No data available.
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Insoluble. Solubility in Organic Solvents: Soluble in methanol, diethyl ether and chloroform.
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	No data available.
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: 1.04 - 1.05 (water = 1)
Relative vapor density	No data available.
Particle characteristics	No data available.

Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

Other Information: Optically active.

Refractive index: 1.531 @ 20 °C

SECTION 10: Stability and reactivity

Reactivity

Stable under normal conditions of storage and handling.

Chemical stability

Stable.

Possibility of hazardous reactions

Hazardous Polymerization: Will not occur.

Conditions to avoid

Avoid storing in direct sunlight and avoid extremes of temperature.

Incompatible materials

Strong oxidising agents, strong acids and strong bases, ferric chloride, potassium permanganate.

Clove oil: Strong oxidizing agents

Hazardous decomposition products

Oxides of carbon, acrid fumes and smoke.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Acute Toxicity - Oral: LD50 (rat): 2650 mg/kg

Ingestion: May cause irritation to mucous membranes in gastrointestinal tract.

Inhalation: May causes irritation to the mucous membranes and the upper respiratory tract. Symptoms include of coughing, scratchy throat.

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Skin corrosion/irritation

May be irritating to skin. Symptoms include itching, scaling, reddening or occasionally blistering and dermatitis.

Serious eye damage/irritation

May be irritating to eyes. Symptoms include redness, watering and itching. Possible corneal injury.

Respiratory or skin sensitization

May cause an allergic skin reaction

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

No data available.

Summary of evaluation of the CMR properties

No data available.

Specific target organ toxicity (STOT) - single exposure

No data available.

Specific target organ toxicity (STOT) - repeated exposure

No data available.

Aspiration hazard

May be fatal if swallowed and enters airways.

Additional information

Chronic Effects: Can damage central nervous system and kidneys.

SECTION 12: Ecological information

Toxicity

No data available.

Persistence and degradability

No data available.

Bioaccumulative potential

No data available.

Mobility in soil

No mobility data available for this product.

Results of PBT and vPvB assessment

No data available.

Endocrine disrupting properties

No data available.

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Other adverse effects

No data available.

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP

Poison Schedule: S6

Canadian Domestic Substances List (DSL)

Chemical name: Clove, ext.

CAS: 84961-50-2

Chemical name: Oils, clove

CAS: 8000-34-8

New Jersey Right To Know Components

Clove leaf oil

CAS-No. 8000-34-8

Pennsylvania Right To Know Components

Clove leaf oil

CAS-No. 8000-34-8

SECTION 16: Other information

Further information/disclaimer

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'

Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.

Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.

Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019

Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)