

Safety Data Sheet

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

| 1.1 Product Identifier | | | | | | |
|------------------------|------------|----------------------------|---|-------------------|-----------|--|
| Product Name | | Citronella Oil | | | | |
| Biological Definition | | | The volatile oil obtained by the steam distillation of the semi-dried | | | |
| | | aerial parts of | f Cymbopogon wii | nterianus Jowitt. | | |
| INCI Name | | Cymbopogon Winterianus Oil | | | | |
| Synonyms & Trade Names | | - | | | | |
| CAS-No | 91771-61-8 | EC No. | 294-954-7 | EINECS No. | 294-954-7 | |

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

Golden Bough Botanicals Inc 12-1585 Cliveden Ave Delta BC V3M 6M1

1.4 Emergency Tel. No. 604-540-8700 (Monday-Friday 8:30 am-4:30 pm)

02. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

The Full Text for all Hazard Statements is displayed in Section 16.

ENVIRONMENT

The product contains a substance which is harmful to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

HUMAN HEALTH

May cause serious eye damage and skin irritation

Classification (EC 1272/2008)

Physical and Chemical Hazards: Not classified.

Human health Asp: Skin Irrit. 2 - H315;Eye Dam. 1 - H318;Skin Sens. 1 - H317

Environment: Aquatic Acute 2 - H401; Aquatic Chronic 2 - H411

2.2 Label Elements

Label in accordance with (EC) No 1272/2008

GHS05







| Signal Word | Danger |
|-------------|---|
| Contains | Citronellal, Citronellol, EUGENOL, Geranial, GERANIOL, Limonene |

Hazard Statements

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H401 Toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements

P273 Avoid release to the environment.

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

P262 Do not get in eyes, on skin, or on clothing.

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

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash ... thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P310 Immediately call a POISON CENTER or doctor/physician.

P321 Specific treatment (see ... on this label).

P332+313 If skin irritation occurs: Get medical advice/attention.

P333+313 If skin irritation or rash occurs: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

P363 Wash contaminated clothing before reuse.

P391 Collect spillage.

P501 Dispose of contents/container to ...

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 |
|------|------------|
| J. Z | IVIIALUICS |

30-60% Citronellal CAS-No.: 106-23-0 EC No.: 203-376-6

Classification (EC 1272/2008) Skin Irrit. 2 - H315, Skin Sens. 1 - H317, Aquatic Chronic 2 - H411

10-30% Citronellol CAS-No.: 106-22-9 EC No.: 203-375-0

Classification (EC 1272/2008) Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1 - H317

1-5% Citronellyl Acetate CAS-No.: 150-84-5 EC No.: 205-775-0

Classification (EC 1272/2008) Skin Irrit. 2 - H315, Aquatic Chronic 2 - H411

1-5% EUGENOL CAS-No.: 97-53-0 EC No.: 202-589-1

Classification (EC 1272/2008) Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1 - H317

1-5% Farnesol CAS-No.: 4602-84-0 EC No.: 225-004-1

Classification (EC 1272/2008) Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1 - H317

1-5% Geranial CAS-No.: EC No.: 205-476-5

Classification (EC 1272/2008) Skin Irrit. 2 - H315, Skin Sens. 1 - H317

10-30% GERANIOL CAS-No.: 106-24-1 EC No.: 203-377-1
Classification (EC 1272/2008) Skin Irrit. 2 - H315, Eye Dam. 1 - H318, Skin Sens. 1 - H317

1-5% Geranyl Acetate CAS-No.: 105-87-3 EC No.: 203-341-5

Classification (EC 1272/2008) Aquatic Chronic 2 - H411

1-5% Limonene CAS-No.: 5989-27-5 EC No.: 227-813-5

Classification (EC 1272/2008) Flam. Liq. 3 - H226, Skin Irrit. 2 - H315, Skin Sens. 1 - H317, Asp. Tox. 1 - H304, Aquatic Acute 1 - H400, Aquatic Chronic 1 - H410

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 im | 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 additi | No additional data available. | | |

05. FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

Extinguishing media: Carbon dioxide (CO2). Dry Chemical Powder. Foam.

5.2 Special hazards arising from the product

When heated and in case of fire, irritating vapours/gases may be formed.

5.3 Advice for firefighters

Special Fire Fighting Procedures

Water spray should be used to cool containers.

Protective equipment for fire-fighters

Wear full protective clothing. Wear suitable respiratory equipment when necessary.

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. Handle the product using protective gloves resistant to the chemicals exposed. Avoid contact with skin and inhalation of its vapours or smoke. Maintain adequate ventilation in the working area after spilling.

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 absorbant 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

Wear protective clothing as described in Section 8 of this safety data sheet.

07. HANDLING AND STORAGE

7.1 Precautions for safe handling

Observe good chemical hygiene practices. Do not eat, drink or smoke when using the product.

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. Protect from light, including direct sunrays. 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

No additional information available.

8.2 Exposure controls

Protective Equipment





| Process Conditions | Provide eyewash station. |
|------------------------|--|
| Engineering Measures | Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the |
| | risk of inhalation of vapours. |
| Respiratory Equipment | No specific recommendation made, but respiratory protection may still be required |
| | under exceptional circumstances when excessive air contamination exists. |
| Hand Protection | Use suitable protective gloves if risk of skin contact. |
| Eye Protection | If risk of splashing, wear safety goggles or face shield. |
| Other Protection | Wear appropriate clothing to prevent any possibility of skin contact. |
| Hygiene Measures | DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap & water if skin becomes |
| | contaminated. Promptly remove any clothing that becomes contaminated. When using |
| | do not eat, drink or smoke. |
| Personal Protection | Use personal protection according to Directive 89/686/EEC. |
| Skin Protection | Wear apron or protective clothing in case of splashes. |
| Environmental Exposure | Avoid discharging into drainage water. Only eliminate by authorised companies. |
| Controls | |

09. PHYSICAL AND CHEMICAL PROPERTIES

| 9.1 Information on basic physical and chemical properties | | |
|---|---------------------------------|--|
| Appearance | Clear liquid | |
| Colour | Pale yellow to brownish yellow. | |

| Odour | Characteristic. |
|---------------------------|-------------------------------|
| Relative Density | 0.850 - 0.950 @ 20°C |
| Flash Point (°C) | 978 |
| Refractive Index | 1.450 - 1.490@ 20°C |
| Melting Point (°C) | No additional data available. |
| Boiling Point (°C) | 220.0 - 225.0 |
| Vapour Pressure | 0.8mm Hg 25c |
| Solubility in Water @20°C | 1:2 on Ethanol 80c |
| Auto-ignition | No additional data available. |
| temperature (°C) | |

9.2 Other information

No additional data available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under the recommended temperature, handling and storage conditions.

10.2 Chemical stability

Stable under the recommended handling and storage conditions.

10.3 Possible hazardous reactions

No additional data available.

10.4 Conditions to Avoid

Avoid heat, flames and other sources of ignition.

10.5 Incompatible materials

Avoid strong acids, alkali or oxidising agents.

10.6 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 | | |
|---|--|--|--|
| 11.1 Illioiniation on toxicological effects | | | |
| Acute Toxicity | Toxic to aquatic organisms, may cause long term adverse effects in the | | |
| | aquatic environment. | | |
| Skin corrosion / irritation | May cause discomfort if swallowed. May cause sensitisation by skin | | |
| | contact. | | |
| Serious eye damage / irritation | Spray and vapour in the eyes may cause irritation and smarting. | | |
| Respiratory or skin sensitisation | In high concentrations, vapours may irritate throat and respiratory system | | |
| | and cause coughing. | | |
| 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. | | |
| Aspiration hazard | No additional data available. | | |
| Photo-toxicity | No additional data available. | | |
| Other Information | No additional data available. | | |

12. ECOLOGICAL INFORMATION

12.1 Toxicity

We have no data regarding ecotoxicity, but it must be considered that this product may be dangerous for the environment.

12.2 Persistence & degradability

No additional data available.

12.3 Bioaccumulation Potential

No additional data available.

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 | 3082 |
| | UN No. SEA | 3082 |
| | UN No. AIR | 3082 |
| | | |

14.2 UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID N.O.S.

14.3 Transport hazard class(es)

ADR/RID/ADN Class: 9 Miscellaneous dangerous substances and articles.

IMDG Class: 9 ICAO Class/Division: 9

Transport Labels



14.4 Packing group

ADR/RID/ADN Packing group: III IMDG Packing group: III ICAO Packing group: III

14.5 Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant



14.6 Special precautions for user

EMS F-A-S-F

Emergency Action Code 3Z

Hazard No. (ADR) 90 Environmentally hazardous substance; miscellaneous dangerous substances.

Tunnel Restriction Code (E)

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

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.

15.2 Chemical safety assessment

No additional information available.

16. OTHER INFORMATION

| Hazard and/or Precautionary | H318 Causes serious eye damage. |
|-----------------------------|--|
| Statements in Full | H319 Causes serious eye irritation. |
| | H315 Causes skin irritation. |
| | H226 Flammable liquid and vapour. |
| | H304 May be fatal if swallowed and enters airways. |
| | H317 May cause an allergic skin reaction. |
| | H411 Toxic to aquatic life with long lasting effects. |
| | H401 Toxic to aquatic life. |
| | H410 Very toxic to aquatic life with long lasting effects. |
| | H400 Very toxic to aquatic life. |
| Other Information | None. |
| Revision Date | March 24, 2016 |
| Reason for revision | New SDS. |
| Rev No/Repl, SDS Generated | 01 |

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.