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SAFETY DATA SHEET (SDS)

**EUCALYPTUS OIL** 

# SAFETY DATA SHEET

Version 2.0 Issued 31<sup>st</sup> March 2016

# **EUCALYPTUS OIL (CINEOLE TYPE)**

# 1. IDENTIFICATION of the SUBSTANCE and the COMPANY

Product Name: 004 - Eucalyptus Oil 80/85 % (m/m) BP/EP -2018
Other Names: Cineole, 1,8-cineole, 1,3,3 Trimethyl-3-oxabicyclo(2.2.2) octane, 1,8-epoxy-p-menthane, 1,8-oxide-p-menthane,

cajeputol, oleum eucalypti

Recommended Use: Flavours and Fragrances

Australian AHECC Code and Name: 3301.29.10, Essential Oils of Eucalyptus

# 2. HAZARD IDENTIFICATION

**UN Proper Shipping Name:** Flammable Liquid, N.O.S.

GHS Classification: Flammable liquids category 3 , Acute Toxicity category 4;

Eye irritation category 4

**GHS Pictograms:** 

GHS Signal word: Warning

Hazard Statements: Flammable liquid and vapour, Harmful if swallowed,

Causes serious eye irritation

**GHS Precautionary Statements** 

**Prevention:** P210, P233, P240, P241, P242, P243, P264, P270, P280

**Response:** P301, P303, P305, P312, P313, P330, P337, P338, P351, P353, P361, P370, P378

**Storage:** P235, P403

**Disposal:** P501 (For full precautionary statements see Section 15 on page 7)

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Poisons Schedule: S6 - Poison

**Health Hazards:** This product may be harmful if swallowed. Vapour/mist/sprays may be

irritating to the eyes

**Reactivity Hazards:** None known

**Environmental Hazards:** May cause adverse effects in aquatic environments. This product is biodegradable **Emergency Considerations:** Emergency responders must wear proper personal protective equipment

and have appropriate fire suppression equipment suitable for the situation

to which they are responding

**EU Labelling and Classification:** For further information under CLP Regulation (EC) 1272/2008 refer to

section 15 on page 8

Health Hazards or Risks from Exposure:

Acute: Prolonged contact with this product may cause irritation to the skin.

Contact with eyes may cause irritation or redness. This product may be

harmful if swallowed.

Chronic: None known

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical Identity:** 1,8 Cineole (C<sub>10</sub>H<sub>18</sub>O) ISO 3065:2011

**Common Names:** Eucalyptus Oil (cineole type)

HAZARDOUS INGREDIENTS	CAS Number	EINECS Number (EC No.)	ICSC Number	Weight %	HAZARD CLASSIFICATION; RISK PHRASES
Eucalyptus Oil	8000-48-4	283-406-3	Not Established	100%	Hazard Classification: Flammable liquids category 3; Acute Toxicity category 4; Eye irritation category 4 Hazard Statements: H226, H302, H319
Balance of water and of concentration (0.1% consensitisers and mutage	oncentration for poten	Hazard Classification: Not classified Hazard Statements: None			

All Canadian WHMIS required information is included in appropriate sections based on GHS format. This product has been classified in accordance with hazard criteria of the GHS and the SDS contains all the information required by the GHS, EU Directives and the Japanese Industrial Standard JIS Z 7250: 2000

See Sections 2 and 15 for full text of Hazard Classification, Signal Words and Hazard Statements

#### 4. FIRST AID MEASURES

Individuals contaminated by chemical exposure must be taken for medical attention if any adverse effect occurs. Rescuers should be taken for medical attention if necessary. Take a copy of the label and SDS to the health professional with contaminated individual.

#### Symptoms caused by exposure

Human adult: Hallucination, distorted perception, coma, diarrhoea, allergic dermatitis Human child: Hallucination, distorted perception, sleep, ataxia, coma, somnolence, diarrhoea

# **Medical Attention and Special Treatment**

**Eye Contact:** Causes serious eye irritation. If in the eyes, open victims' eyes while under gentle running water. Use

sufficient force to open eyelids. Flush for a minimum of fifteen (15) minutes. Remove contact lenses if

worn and accessible. Seek immediate medical attention if irritation persists

Skin Contact: Wash contacted area thoroughly with soap and water. Remove exposed or contaminated clothing,

taking care not to contaminate eyes. Seek medical attention if irritation develops

Inhalation: If fumes or vapours are inhaled, or breathing difficulty is experienced, remove victim to fresh air.

If necessary, use artificial respiration to support vital functions. Seek immediate medical attention if

breathing difficulty persists

Ingestion: If the chemical is swallowed, call a physician or poison control centre for the most current information.

If no professional advice is available, DO NOT induce vomiting, rinse the mouth. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions or who cannot

swallow. Victims of chemical exposure must be taken for medical attention. Take a copy of the label and SDS with the victim to a health professional

Medical Conditions aggravated by exposure:

Pre-existing skin, eye or respiratory problems may be aggravated by prolonged contact Treat symptoms and eliminate exposure

Recommendation to Physicians:

# 5. FIRE FIGHTING MEASURES

Flash Point: 48 °C (120 °F)

Suitable fire extinguishing materials: Carbon dioxide, foam, dry chemical, halon or water fog/

mist.

Unsuitable fire extinguishing materials: Do not use full water jet

Unusual fire and explosion hazards: This product is flammable & vapours may travel some

distance and flash back if ignited

**Explosion sensitivity to mechanical impact:** Not sensitive **Explosion Sensitivity to static discharge:** Sensitive

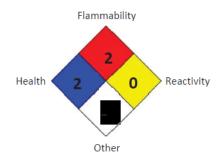
Specific hazards arising from the substance: May produce toxic fumes of carbon monoxide and/or

carbon dioxide and hydrocarbons if burning.

Special fire fighting procedures: Incipient fire responders should wear eye protection.

Structural fire fighters must wear self-contained breathing apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise keep containers cool with carefully applied water spray/mist. If possible, prevent runoff water from entering storm drains, bodies of water or other environmentally sensitive areas

#### **NFPA RATING:**



#### Hazard Scale:

0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

# 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Proper protective equipment should be used (see Section 8: Personal

Protection). Personnel should be trained for spill response operations.

Emergency Procedures: Trained personnel following pre-planned procedures should handle non-

incidental releases.

Spill Containment/Cleanup: Contain spilled material using poly-pads or other suitable absorbent

material. Avoid generating mists or sprays. Place all spill residues in an appropriate container and seal. Ventilate area and wash spill area after

material pickup is complete.

Environmental Precautions: Prevent run-off into drains and waterways. Decontaminate area

thoroughly. Do not mix with wastes from other materials. Dispose of in accordance with applicable Federal, State and Local procedures (see

Section 13).

# 7. HANDLING and STORAGE

Work Practices and Hygiene Practices: Read all labels before use. As with all chemicals; avoid getting this product on you or in you. Wear personal protective equipment (see Section 8) and wash thoroughly after handling this product. Do not eat, drink, smoke or apply cosmetics while handling this product. Avoid breathing mists or sprays generated by this product. Use in a well ventilated location. Remove contaminated clothing immediately.

Storage and Handling Practices: Observe all Federal and State regulations pertaining to the storage and handling of flammable liquids. Store in a cool, dry, well ventilated area away from direct sunlight. Keep containers tightly closed when not in use. Store away from sources of heat or ignition (sparks, open flame, hot surfaces). Store away from incompatible materials (oxidising agents and acids). Inspect regularly for damage and leaks. Take precautionary measures against static discharge: Ground container and receiving equipment, use only non-sparking tools and use explosion-proof electrical and other equipment.

This product is listed in the Australian Scheduling of Drugs and Poisons as a Schedule 6 Poison; storage and handling procedures must be in accordance with the relevant regulations.

# 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Ventilation and Engineering Controls:** Use with adequate ventilation to ensure exposure levels are maintained below the limits provided below

Chemical Name	CAS Number	ACGIH-TLV's	OSHA PEL's	NIOSH-TLV's	Other
Eucalyptus Oil	8000-48-4	Not Established	Not Established	Not Established	Not Established

Currently, international exposure limits are not established for the components of this product. Please check with a competent authority in each country for the most recently established limits

The following information on Personal Protective Equipment (PPE) is provided to assist employers in complying with OSHA regulations found in 29 CFR sub-part I (beginning at 1910.132) or equivalent standard of Australia and Canada, or standards of EU member states (including EN 149 for respiratory PPE and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for full relevant details

**Eye/Face Protection:** Splash goggles or safety glasses with side shields are recommended. If necessary, refer to US OHSA Standard 29 CFR 1910.133, the European Standard EN 166, the appropriate Australian Standards, Canadian Standards, or the relevant Japanese Standards

Hand Protection: Compatible protective gloves are recommended. Wash hands after removing gloves. If necessary, refer to US OHSA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Australian Standards, Canadian Standards, or the relevant Japanese Standards

Body Protection: Use body protection appropriate to the task. Coveralls, rubber aprons or chemical protective clothing made from natural rubber are generally acceptable depending on the task. If a hazard of injury to the feet exists due to falling objects, rolling objects or where objects may pierce the soles of the feet or where an employee's feet may be exposed to electrical hazards, use foot protection in accordance with US OSHA 29 CFR 1910.136. If necessary refer to the appropriate Australian Standards, Canadian Standards, or the relevant Japanese and European Standards

Respiratory Protection: If exposure limits are exceeded, use only respiratory protection authorised in the US Federal OSHA Respiratory Standard 29 CFR 1910.134, equivalent US State standards, Canadian CSA Standard Z94.4-93, the European Standard EN 149 or equivalent EU member State Standards

# 9. PHYSICAL and CHEMICAL PROPERTIES

Appearance: Colourless to pale yellow liquid

Odour: Fresh, camphor like

Odour threshold: Mild

pH: Not established

1.5°C Melting point: Freezing point: 0°C 155-176°C Boiling point/range:

Flash point: 43-56°C (Penksy-Martin closed cup)

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Evaporation rate: Not established

Flammability: 55 °C (Cleveland open cup)

Upper flammability: Not established Not established Not established 1.62mm @25°C Vapour density: Not established Not establish

Solubility: Insoluble in water, 1 part miscible with 2 parts ethanol (70% v/v) at 20 °C

**Partition coefficient:** 0.0681 **Auto-ignition temp:** 269 °C

**Decomposition temp:** Not established **Viscosity (Kinematic):** 1.6-2.1 mm<sup>2</sup>/s at 40 °C

(Dynamic): N/A VOC content (% volatile): 100%

Optical rotation: -20° to +10° at 20 °C

Saturated vapour

concentration: Not established

Release of invisible flammable vapours and gases: This product is flammable & vapours may travel some

distance and flash back if ignited

# 10. STABILITY and REACTIVITY

Reactivity: None known

Chemical stability:Stable under ordinary conditions of use and storageConditions to avoid:Excessive heat, sparks, flames and other sources of ignitionIncompatible materials:Strong oxidising or reducing agents. Protect from air

Hazardous depolymerisation: Will not occur

Hazardous decomposition

products: When heated, decomposition may produce hydrocarbons, CO and/or CO<sub>2</sub>

# 11. TOXICOLOGICAL INFORMATION

#### Likely routes of exposure and symptoms related to exposure

**Eye contact:** Severe irritant. May cause redness, irritation or oedema

Skin contact: Potential irritant. May cause erythema, irritation or oedema if oil is oxidised

Repeated or prolonged skin contact may lead to allergic contact dermatitis

Inhalation: Potential irritant. Over-exposure at high levels may result in mucous membrane

irritation of the nose and throat with coughing

Ingestion: May be harmful if swallowed. May result in allergic dermatitis, hallucination, ataxia,

diarrhoea, central nervous system depression, sleep or coma

#### Measures of toxicity

**Dermal Toxic Dose:** Human adult: > 25% (in white paraffin applied for 21 days)?

Oral Toxic Dose: Human adult: 375 mg/kg

Oral Toxic Dose (1): Human child: 218 mg/Kg (NIOSH1975)

Toxic effects

Rat: Somnolence, muscle weakness, ataxia, partial paralysis

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Feline: Ataxia, change to leukocyte count
Canine: Somnolence, ataxia, partial paralysis

Human adult: Hallucination, distorted perception, coma, diarrhoea, allergic dermatitis
Human child: Hallucination, distorted perception, sleep, ataxia, coma, somnolence, diarrhoea

Sensitisation potential

Skin: Low (modified FCA method, guinea pig model); LLNA

Eye: Category 2 for reversible eye effects

Germ cell mutagenicity: Not mutagenic as determined by the Ames test; Micronucleus Assay OEDC 474

Carcinogenicity: The components of this product are not listed by agencies tracking the carcinogenic potential

of chemical compounds as follows:

NTP Regulated: No IARC Regulated: No OSHA Regulated: No

Reproductive ToxicityEffects of this product and its components on the human reproductive system:Mutagenicity:The components of this product are not reported to produce mutagenic effects in humansEmbryotoxicity:The components of this product are not reported to produce embryotoxic effects in humansTeratogenicity:The components of this product are not reported to produce teratogenic effects in humansReproductive Toxicity:The components of this product are not reported to produce reproductive effects in humans

STOT - single exposure: No valid data

STOT - repeated exposure: No valid data. With repeated exposure this product may cause damage to

the following organs: Blood, skin, central nervous system

Aspiration hazard: No valid data

# 12. ECOLOGICAL INFORMATION

All work practices must be aimed at eliminating environmental contamination

Environmental Toxicity: Not acutely toxic to fish LC<sub>50</sub> > 100 mg/L (OECD 203)

Environmental Fate: May cause adverse side effects in an aquatic environment, biodegradable

in seawater

Persistence and Degradability: This product is readily biodegradable<sub>13</sub>

Mobility in Soil: No data available
Other Adverse Effects: None known

#### 13. DISPOSAL CONSIDERATIONS

Preparing waste for Disposal: Waste disposal must be in accordance with the appropriate Australian

Federal, State and Local regulations as well as those of Canada, USA, EU Member States and Japan

Disposal methods:

Dispose of containers and small amounts at an approved landfill site. For

larger quantities contact a licensed professional waste disposal service

Precautions: Prevent contamination of drains and/or waterways

#### 14. STORAGE and TRANSPORT INFORMATION

UN Proper Shipping Name: FLAMMABLE LIQUID, N.O.S.

UN Number: 1993

Transport Hazard Class: Flammable liquids category 3

GHS Packing Groups:

**GHS Labelling requirements** 

GHS Signal word: Warning

GHS Classifications: Flammable liquids category 3; Acute Toxicity category 4;

Eye irritation category 4

**GHS Pictograms:** 

**V V** 

**GHS Hazard Statements:** H226: Flammable liquid and vapour; H302 Harmful if swallowed;

H319: Causes serious eye irritation.

**Hazchem Code:** 3[Y]

**US DOT Labelling Requirements:** Flammable Label (Flame pictogram)

**Environmental Hazards:** May cause adverse effects in aquatic environments.

This product is biodegradable

**Special Precautions during Transport** 

IATA and IMO Labelling Requirements: Flammable Label (Flame pictogram)

**Aircraft Restrictions:** Passenger Aircraft 60 litres, Cargo Aircraft 220 Litres

Australian National Transport Commission: This produce is classified as Dangerous Goods under the Australian Dangerous Goods Code

(ADG7).

US Dept. of Transport (DOT) Shipping Regulations: This product is classified as Dangerous Goods per DOT regulations under 49 CFR

172.101.

Transport Canada, Transport of Dangerous Goods Regulations: This product is classified as Dangerous Goods as per regulations of Transport Canada (Canadian Transport of Dangerous Goods).

International Air Transport Association (IATA): This product is classified as Dangerous Goods requirements under IATA DG Regulations which are based in part on the UN Recommendations for the Transport of Dangerous Goods

International Maritime Organisation (IMO) Designation: This product is classified as Dangerous Goods under IMO DG Code which is based in part on the UN Recommendations for the Transport of Dangerous Goods

European Agreement concerning the international carriage of Dangerous Goods by Road (ADR): This product is classified as Dangerous Goods by the United Nations Economic Commission for Europe

#### REGULATORY INFORMATION **15.**

Note: All countries have specific requirements for labelling depending on a wide variety of factors. The following regulatory information is provided to assist in complying with some common regulations for major export destinations including Australia, the USA, Canada, EU member states and Japan. Please reference applicable regulations and standards for full relevant details for destinations

#### Australia

**AICS Status:** All components of this product are listed or exempt

Standard for the Uniform

**Scheduling of Drugs and Poisons:** Schedule 6 (S6) Poison

Classification & Labelling: UN GHS for classification and labelling of chemicals.

Classification: Flammable liquid category 3; Acute toxicity category 4; Eye irritation category 4

**GHS Pictograms:** 

**GHS Signal Word:** Warning

**GHS Hazard Statements:** H226: Flammable liquid and vapour; H302 Harmful if swallowed; H319: Causes serious eye

irritation

**GHS Precautionary Statements** For full details refer to the appropriate section of this SDS

Prevention: P210: Keep away from heat/sparks/open flames/hot surfaces.-No Smoking, P233: Keep container tightly closed

P240: Ground/bond container and receiving equipment, P242: Use only non-sparking tools

P241: Use explosion proof electrical/venting/lighting equipment P243: Take precautionary measures against static discharge

P270: Do not eat, drink or smoke when using this product, P264: Wash thoroughly after handling

P280: Wear protective gloves/eye protection/face protection

Response: P301 + P312: IF SWALLOWED: call a POISON CENTRE or doctor/physician if you feel unwell.

P303+P361+P353: IF ON SKIN (or hair): remove/take off immediately all contaminated clothing. Rinse skin with water/shower P305+P351+P338: IF IN EYES: Rinse cautiously for several minutes, remove contact lenses if present & easy to do, continue rinsing.

P313+P317: If eye irritation persists get medical attention, P330: Rinse mouth

P370+ P378: In case of fire: Use [appropriate media] for extinction P403+P235: Store in a well-ventilated place, keep cool Storage:

P501: Dispose of contents/container in accordance with local/regional/national/international regulations. Disposal:

#### **United States**

**SARA Reporting Requirements:** None

Marine Pollutant: This product contains no component listed as a Marine Pollutant under

49 CFR 172.101 Appendix B

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TSCA: All components in this product mixture are listed on the US TSCA inventory of

chemicals or are exempt from listing

SARA 31/312: Acute Health: Yes; Chronic Health: No; Fire: Yes; Reactivity: No

US CERCLA (RQ): None

California (Proposition 65): This product does not contain any component above the 0.1% level which is listed

as a California Proposition 65 Chemical

**Canada** 

Canada DSL Inventory Status: All of the components of this product are on the Domestic Substance List (DSL). This

product is listed on the DSL as *Oils, eucalyptus* under identifier # 8000-48-4 No component of this product is on the CEPA First Priorities Substance List

Canadian WHMIS Classification

and Symbol:

Class B-2 Flammable Liquid. (Flame pictogram): Canadian federal Hazardous Products Act (HPA) and associated

Controlled Products Regulations (CPR)



#### **European Union**

**CEPA Substance List:** 

EINCS: This material is listed on the European Inventory of Existing Chemical Substances (EINCS).

Classification & Labelling: CLP Regulation (EC) 1272/2008

# **International Chemical Inventories Summary**

Listing of the components on individual country Chemical Inventories:

Asia-Pacific: Listed or exempt Australian ICS: Listed or exempt Korean ECL: Listed or exempt Japanese ENICS: Listed or exempt **Philippines ICCS:** Listed or exempt Swisse Giftliste: Listed or exempt **USA TSCA:** Canadian DSL: Listed or exempt Listed or exempt

# 16. OTHER INFORMATION

#### **Abbreviations**

ACGIH American Conference of Governmental Industrial Hygienists, ADG7 Australian Dangerous Goods 7<sup>th</sup> Edition, AHECC Australian Harmonized Export Commodity Classification, AICS Australian Inventory of Chemical Substances, California (Proposition 65) The Safe Drinking Water and Toxic Enforcement Act of 1986, CAS Chemical Abstracts Service, CEPA Canadian Environmental Protection Act, CERCLA Comprehensive Environmental Response Compensation and Liability Act, CFR Code of Federal Regulations, CLP Classification, Labelling & Packaging, DSL Domestic Substances List, DIN Deutsches Institut für Normung, DOT Department of Transport, DPD Dangerous Preparations Directive, ECL Existing Chemicals List, ENICS Existing national Inventory of Chemical Substances, EU European Union, FCE Formal Concept Analysis, HET-CAM Hen's Egg Test Chorioallantoic Membrane, IATA International Air transport Association, ICCS Inventory of Chemicals and Chemical Substances, ICS Inventory of Chemical Substances, IMO International Maritime Organisation, JIS Japanese Industrial Standards, LD<sub>50</sub>, Lethal Dose 50%, LLNA Local Lymph Node Assay, MITI Minister of International Trade and Industry, NFPA National Fire Protection Association, NIOSH National Institute for Occupational Safety and Health, NOS Not Otherwise Specified, OECD Organisation for Economic Cooperation and Development, OSHA Occupational Safety & Health Administration, PELs Permissible Exposure Limits, PPE Personal Protective Equipment, RQ Reportable Quantity, SARA Superfund Amendments and Reauthorization Act 1986, SDS Safety Data Sheet, STOT Single Target Organ Toxicity, TLV Threshold Limit Value, TSCA Toxic Substances Control Act, UN United nations, GHS Globally Harmonised System, VOC Volatile Organic Compound, WHMIS Workplace Hazardous Materials Information System.

#### References

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