

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 22.06.2023

Version 107 (replaces version 106)

Revision: 22.06.2023

**. SECTION 1: Identification of the substance/mixture and of the company/undertaking**

◊ **1.1 Product identifier**

◊ Trade name: **Eukalyptol (EU-GMP qualifiziert) EuAB / 07-3500**

◊ Article number: S0100795

◊ CAS Number:

470-82-6

◊ EC number:

207-431-5

◊ Registration number 01-2119967772-24-0005

◊ **1.2 Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.

◊ Application of the substance / the mixture Flavour/Fragrance

◊ **1.3 Details of the supplier of the safety data sheet**

◊ Manufacturer/Supplier:

Frey & Lau GmbH

Immenhacken 12, D-24558 Henstedt-Ulzburg

Tel: ++49-4193-9953 Fax: +49-4193-9955-80

◊ Further information obtainable from:

Sachkundige Person Frey + Lau

info@freylau.com

◊ **1.4 Emergency telephone number:** ++49-40-54.77.99.56 WAKO

**. SECTION 2: Hazards identification**

◊ **2.1 Classification of the substance or mixture**

◊ Classification according to Regulation (EC) No 1272/2008

Flam. Liq. 3 H226 Flammable liquid and vapour.

Skin Sens. 1B H317 May cause an allergic skin reaction.

◊ **2.2 Label elements**

◊ Labelling according to Regulation (EC) No 1272/2008 The substance is classified and labelled according to the CLP regulation.

◊ Hazard pictograms



GHS02 GHS07

◊ Signal word Warning

◊ Hazard-determining components of labelling:

Eucalyptol

(R)-p-mentha-1,8-diene

◊ Hazard statements

H226 Flammable liquid and vapour.

H317 May cause an allergic skin reaction.

◊ Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P241 Use explosion-proof [electrical/ventilating/lighting] equipment.

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

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

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

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

◊ **2.3 Other hazards**

◊ Results of PBT and vPvB assessment

◊ PBT: Not applicable.

◊ vPvB: Not applicable.

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**Trade name: Eukalyptol (EU-GMP qualifiziert) EuAB / 07-3500**

(Contd. of page 1)

**. SECTION 3: Composition/information on ingredients**

◇ **3.1 Substances**

◇ CAS No. Description

470-82-6 Eucalyptol

◇ Identification number(s)

◇ EC number: 207-431-5

◇ Dangerous components:

CAS: 5989-27-5 (R)-p-mentha-1,8-diene

≥1-<2,5%

EINECS: 227-813-5 Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Acute 1, H400; Skin Irrit. 2, H315; Skin Sens. 1B, H317; Aquatic Chronic 3, H412

substance with a Community workplace exposure limit

**. SECTION 4: First aid measures**

◇ **4.1 Description of first aid measures**

◇ General information: Immediately remove any clothing soiled by the product.

◇ After inhalation: Supply fresh air; consult doctor in case of complaints.

◇ After skin contact: Immediately rinse with water.

◇ After eye contact: Rinse opened eye for several minutes under running water.

◇ After swallowing: If symptoms persist consult doctor.

◇ **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

◇ **4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.

**. SECTION 5: Firefighting measures**

◇ **5.1 Extinguishing media**

◇ Suitable extinguishing agents: CO<sub>2</sub>, sand, extinguishing powder. Do not use water.

◇ For safety reasons unsuitable extinguishing agents: Water with full jet

◇ **5.2 Special hazards arising from the substance or mixture** During heating or in case of fire poisonous gases are produced.

◇ **5.3 Advice for firefighters**

◇ Protective equipment: No special measures required.

**. SECTION 6: Accidental release measures**

◇ **6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

◇ **6.2 Environmental precautions:**

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

◇ **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Treat with 2 % sodium hydroxide solution.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

◇ **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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(Contd. on page 3)

**Safety data sheet**  
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**Trade name: Eukalyptol (EU-GMP qualifiziert) EuAB / 07-3500**

(Contd. of page 2)

**. SECTION 7: Handling and storage**

- ◊ **7.1 Precautions for safe handling** Prevent formation of aerosols.
- ◊ **Information about fire - and explosion protection:**
  - Keep ignition sources away - Do not smoke.
  - Protect from heat.
  - Protect against electrostatic charges.
- ◊ **7.2 Conditions for safe storage, including any incompatibilities**
- ◊ **Storage:**
- ◊ **Requirements to be met by storerooms and receptacles:** No special requirements.
- ◊ **Information about storage in one common storage facility:** Not required.
- ◊ **Further information about storage conditions:** Keep container tightly sealed.
- ◊ **Storage class:** 3
- ◊ **7.3 Specific end use(s)** No further relevant information available.

**. SECTION 8: Exposure controls/personal protection**

- ◊ **8.1 Control parameters**
- ◊ **Ingredients with limit values that require monitoring at the workplace:**
  - 5989-27-5 (R)-p-mentha-1,8-diene**
  - MAK Short-term value: 80 mg/m<sup>3</sup>, 14 ppm
  - Long-term value: 40 mg/m<sup>3</sup>, 7 ppm
  - S SSc;
- ◊ **Additional information:** The lists valid during the making were used as basis.
- ◊ **8.2 Exposure controls**
- ◊ **Appropriate engineering controls** No further data; see item 7.
- ◊ **Individual protection measures, such as personal protective equipment**
- ◊ **General protective and hygienic measures:**
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing
  - Wash hands before breaks and at the end of work.
- ◊ **Respiratory protection:** Not required.
- ◊ **Hand protection**
  - Protective gloves
  - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- ◊ **Material of gloves**
  - Multichemical-resistant gloves, Category III acc. to Regulation (EC) 2016/425
  - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- ◊ **Penetration time of glove material**
  - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- ◊ **Eye/face protection** Tightly sealed goggles

**. SECTION 9: Physical and chemical properties**

- ◊ **9.1 Information on basic physical and chemical properties**
- ◊ **General Information**
- ◊ **Physical state** Fluid
- ◊ **Colour:** Not determined.
- ◊ **Odour:** Characteristic
- ◊ **Odour threshold:** Not determined.
- ◊ **Melting point/freezing point:** 1 °C
- ◊ **Flammability** Flammable.

(Contd. on page 4)

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**Trade name: Eukalyptol (EU-GMP qualifiziert) EuAB / 07-3500**

(Contd. of page 3)

◊ Lower and upper explosion limit	
◊ Lower:	Not determined.
◊ Upper:	Not determined.
◊ Flash point:	51 °C
◊ Decomposition temperature:	Not determined.
◊ pH	Mixture is non-polar/aprotic.
◊ Solubility	
◊ water:	Not miscible or difficult to mix.
◊ Partition coefficient n-octanol/water (log value)	Not determined.
◊ Density and/or relative density	
◊ Density at 20 °C:	0,925 g/cm <sup>3</sup>
◊ Relative density	Not determined.
◊ Vapour density	Not determined.
<b>◊ 9.2 Other information</b>	
◊ Appearance:	
◊ Form:	Fluid
◊ Important information on protection of health and environment, and on safety.	
◊ Auto-ignition temperature:	Not determined.
◊ Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
◊ VOC (EC)	100,00 %
◊ Evaporation rate	Not determined.
<b>◊ Information with regard to physical hazard classes</b>	
◊ Explosives	Void
◊ Flammable gases	Void
◊ Aerosols	Void
◊ Oxidising gases	Void
◊ Gases under pressure	Void
◊ Flammable liquids	Flammable liquid and vapour.
◊ Flammable solids	Void
◊ Self-reactive substances and mixtures	Void
◊ Pyrophoric liquids	Void
◊ Pyrophoric solids	Void
◊ Self-heating substances and mixtures	Void
◊ Substances and mixtures, which emit flammable gases in contact with water	Void
◊ Oxidising liquids	Void
◊ Oxidising solids	Void
◊ Organic peroxides	Void
◊ Corrosive to metals	Void
◊ Desensitised explosives	Void

**. SECTION 10: Stability and reactivity**

- ◊ **10.1 Reactivity** No further relevant information available.
- ◊ **10.2 Chemical stability**
- ◊ Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- ◊ **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- ◊ **10.4 Conditions to avoid** No further relevant information available.
- ◊ **10.5 Incompatible materials:** No further relevant information available.
- ◊ **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

CH

(Contd. on page 5)

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according to 1907/2006/EC, Article 31

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Version 107 (replaces version 106)

Revision: 22.06.2023

**Trade name: Eukalyptol (EU-GMP qualifiziert) EuAB / 07-3500**

(Contd. of page 4)

**. SECTION 11: Toxicological information**

◊ **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

- ◊ Acute toxicity Based on available data, the classification criteria are not met.
- ◊ LD/LC50 values relevant for classification:

**470-82-6 Eucalyptol**

Oral LD50 2.480 mg/kg (rat)

Dermal LD50 >5.000 mg/kg (rabbit)

- ◊ Skin corrosion/irritation Based on available data, the classification criteria are not met.
- ◊ Serious eye damage/irritation Based on available data, the classification criteria are not met.
- ◊ Respiratory or skin sensitisation May cause an allergic skin reaction.
- ◊ Germ cell mutagenicity Based on available data, the classification criteria are not met.
- ◊ Carcinogenicity Based on available data, the classification criteria are not met.
- ◊ Reproductive toxicity Based on available data, the classification criteria are not met.
- ◊ STOT-single exposure Based on available data, the classification criteria are not met.
- ◊ STOT-repeated exposure Based on available data, the classification criteria are not met.
- ◊ Aspiration hazard Based on available data, the classification criteria are not met.

◊ **11.2 Information on other hazards**

- ◊ Endocrine disrupting properties  
None of the ingredients is listed.

\* **. SECTION 12: Ecological information**

◊ **12.1 Toxicity**

◊ Aquatic toxicity: No further relevant information available.

◊ **12.2 Persistence and degradability** No further relevant information available.

◊ **12.3 Bioaccumulative potential** No further relevant information available.

◊ **12.4 Mobility in soil** No further relevant information available.

◊ **12.5 Results of PBT and vPvB assessment**

◊ PBT: Not applicable.

◊ vPvB: Not applicable.

◊ **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.

◊ **12.7 Other adverse effects**

◊ Remark: Harmless to fish up to the tested concentration

◊ Additional ecological information:

◊ General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

**. SECTION 13: Disposal considerations**

◊ **13.1 Waste treatment methods**

◊ Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system.

◊ Uncleaned packaging:

◊ Recommendation: Disposal must be made according to official regulations.

\* **. SECTION 14: Transport information**

◊ **14.1 UN number or ID number**

◊ ADR, IMDG, IATA

UN1993

◊ **14.2 UN proper shipping name**

◊ ADR

ENTZÜNDBARER FLÜSSIGER STOFF, N.A.G. (1,8-Cineol)

(Contd. on page 6)

**Safety data sheet**  
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Version 107 (replaces version 106)

Revision: 22.06.2023

**Trade name: Eukalyptol (EU-GMP qualifiziert) EuAB / 07-3500**

(Contd. of page 5)

◊ **IMDG** FLAMMABLE LIQUID, N.O.S. (1,8-Cineol)  
 ◊ **IATA** FLAMMABLE LIQUID, N.O.S. (containing 1,8-Cineol)  
 ◊ **14.3 Transport hazard class(es)**

◊ **ADR**  
 ◊ **Class** 3 (F1) Flammable liquids.  
 ◊ **Label** 3

◊ **IMDG, IATA**  
 ◊ **Class** 3 Flammable liquids.  
 ◊ **Label** 3

◊ **14.4 Packing group**  
 ◊ **ADR, IMDG, IATA** III  
 ◊ **14.5 Environmental hazards:** Not applicable.  
 ◊ **14.6 Special precautions for user** Warning: Flammable liquids.  
 ◊ **Hazard identification number (Kemler code):** 30  
 ◊ **EMS Number:** F-E,S-E  
 ◊ **Stowage Category** A  
 ◊ **14.7 Maritime transport in bulk according to IMO instruments** Not applicable.

◊ **Transport/Additional information:**

◊ **ADR**  
 ◊ **Limited quantities (LQ)** 5L  
 ◊ **Excepted quantities (EQ)** Code: E1  
 Maximum net quantity per inner packaging: 30 ml  
 Maximum net quantity per outer packaging: 1000 ml  
 ◊ **Transport category** 3  
 ◊ **Tunnel restriction code** D/E

◊ **IMDG**  
 ◊ **Limited quantities (LQ)** 5L  
 ◊ **Excepted quantities (EQ)** Code: E1  
 Maximum net quantity per inner packaging: 30 ml  
 Maximum net quantity per outer packaging: 1000 ml  
 ◊ **UN "Model Regulation":** UN 1993 ENTZÜNDBARER FLÜSSIGER STOFF, N.A.G. (1,8-CINEOL), 3, III

**. SECTION 15: Regulatory information**

◊ **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
 822.115, Jugendarbeitsschutzverordnung - ArGV 5 und 822.115.2, Verordnung des WBF über gefährliche Arbeiten für Jugendliche sind zu beachten.  
 ArGV 1 und 822.111.52, Verordnung des WBF über gefährliche und beschwerliche Arbeiten bei Schwangerschaft und Mutterschaft sind nicht zutreffend.  
 ◊ **Labelling according to Regulation (EC) No 1272/2008** The substance is classified and labelled according to the CLP regulation.  
 ◊ **Hazard pictograms**

   
 GHS02 GHS07

◊ **Signal word** Warning  
 ◊ **Hazard-determining components of labelling:**  
 Eucalyptol  
 (R)-p-mentha-1,8-diene  
 ◊ **Hazard statements**  
 H226 Flammable liquid and vapour.  
 H317 May cause an allergic skin reaction.

(Contd. on page 7)

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**Trade name: Eukalyptol (EU-GMP qualifiziert) EuAB / 07-3500**

(Contd. of page 6)

◊ **Precautionary statements**

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P241 Use explosion-proof [electrical/ventilating/lighting] equipment.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

◊ **Directive 2012/18/EU**

◊ **Named dangerous substances - ANNEX I Substance is not listed.**

◊ **Seveso category P5c FLAMMABLE LIQUIDS**

◊ **Qualifying quantity (tonnes) for the application of lower-tier requirements 5.000 t**

◊ **Qualifying quantity (tonnes) for the application of upper-tier requirements 50.000 t**

◊ **REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3**

◊ **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

◊ **REGULATION (EU) 2019/1148**

◊ **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

◊ **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

◊ **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

◊ **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

◊ **National regulations:**

◊ **Waterhazard class: Klasse A (Self-assessment)**

◊ **15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**

**. SECTION 16: Other information**

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

◊ **Relevant phrases**

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H400 Very toxic to aquatic life.

H412 Harmful to aquatic life with long lasting effects.

◊ **Department issuing SDS: Regulatory Affairs**

◊ **Contact: Dr. Maja Zippel**

◊ **Date of previous version: 24.03.2023**

◊ **Version number of previous version: 106**

◊ **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

(Contd. on page 8)

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**Trade name: Eukalyptol (EU-GMP qualifiziert) EuAB / 07-3500**

(Contd. of page 7)

VOC: Volatile Organic Compounds (USA, EU)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Flam. Liq. 3: Flammable liquids – Category 3  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Skin Sens. 1B: Skin sensitisation – Category 1B  
Asp. Tox. 1: Aspiration hazard – Category 1  
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1  
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3  
◇ \* Data compared to the previous version altered.

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