

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

Printing date 02.05.2019

Version 2

Revision: 02.05.2019

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

◊ **1.1 Product identifier**

◊ Trade name: **Terpineol II (MU)**

◊ Article number: S0404433

◊ CAS Number:
8000-41-7

◊ EC number:
232-268-1

◊ Registration number -

◊ **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.de

◊ **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

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

◊ **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



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◊ Signal word Warning

◊ Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

◊ Precautionary statements

P264 Wash thoroughly after handling.

P280 Wear protective gloves / eye protection / face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P337+P313 If eye irritation persists: Get medical advice/attention.

◊ **2.3 Other hazards**

◊ Results of PBT and vPvB assessment

◊ PBT: Not applicable.

◊ vPvB: Not applicable.

. SECTION 3: Composition/information on ingredients

◊ **3.1 Chemical characterisation: Substances**

◊ CAS No. Description

8000-41-7 Terpineol

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- ◊ Identification number(s)
- ◊ EC number: 232-268-1

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◊ **Dangerous components:**

CAS: 138-86-3 **DIPENTENE** $\geq 0,1 - < 0,25\%$
EINECS: 205-341-0 Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Irrit. 2, H315; Skin Sens. 1B, H317

. SECTION 4: First aid measures

◊ **4.1 Description of first aid measures**

- ◊ **General information:** Immediately remove any clothing soiled by the product.
- ◊ **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- ◊ **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- ◊ **After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- ◊ **After swallowing:** Drink plenty of water and provide fresh air. Call for a doctor immediately.

◊ **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: CO₂, 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** No further relevant information available.

◊ **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** Not required.

◊ **6.2 Environmental precautions:** 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.

Ensure adequate ventilation.

◊ **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.

. SECTION 7: Handling and storage

◊ **7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

No special precautions are necessary if used correctly.

◊ **Information about fire - and explosion protection:** No special measures required.

◊ **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:** 10

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◊ **7.3 Specific end use(s)** No further relevant information available.

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. SECTION 8: Exposure controls/personal protection

◊ Additional information about design of technical facilities: No further data; see item 7.

◊ **8.1 Control parameters**

- ◊ Ingredients with limit values that require monitoring at the workplace: Not required.
- ◊ Additional information: The lists valid during the making were used as basis.

◊ **8.2 Exposure controls**

◊ 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.
- Avoid contact with the eyes and skin.

◊ Respiratory protection: Not required.

◊ Protection of hands:

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

The multichemical-resistant glove Barrier 02-100 is recommended.

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 protection: Tightly sealed goggles

. SECTION 9: Physical and chemical properties

◊ **9.1 Information on basic physical and chemical properties**

◊ General Information

◊ Appearance:

Form:	Fluid
Colour:	Not determined.
◊ Odour:	Characteristic
◊ Odour threshold:	Not determined.

◊ pH-value: Not determined.

◊ Melting point/freezing point: Undetermined.

◊ Flash point: 90 °C

◊ Flammability (solid, gas): Not applicable.

◊ Decomposition temperature: Not determined.

◊ Auto-ignition temperature: Not determined.

◊ Explosive properties: Not determined.

◊ Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

◊ Density at 20 °C: 0,934 g/cm³

◊ Relative density: Not determined.

◊ Vapour density: Not determined.

◊ Evaporation rate: Not determined.

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- ◊ **Solubility in / Miscibility with water:** Not miscible or difficult to mix.
- ◊ **Partition coefficient: n-octanol/water:** Not determined.
- ◊ **VOC (EC)** 99,92 %
- ◊ **9.2 Other information** No further relevant information available.

. 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.

. SECTION 11: Toxicological information

- ◊ **11.1 Information on toxicological effects**
- ◊ **Acute toxicity** Based on available data, the classification criteria are not met.
- ◊ **Primary irritant effect:**
- ◊ **Skin corrosion/irritation**
Causes skin irritation.
- ◊ **Serious eye damage/irritation**
Causes serious eye irritation.
- ◊ **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- ◊ **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- ◊ **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.

. 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.
- ◊ **Ecotoxicological effects:**
- ◊ **Remark:** Harmless to fish up to the tested concentration
- ◊ **Additional ecological information:**
- ◊ **General notes:**
Water hazard class 2 (German Regulation) (Assessment by list): 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.
- ◊ **12.5 Results of PBT and vPvB assessment**
- ◊ **PBT:** Not applicable.
- ◊ **vPvB:** Not applicable.
- ◊ **12.6 Other adverse effects** No further relevant information available.

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. 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**
 - ◊ ADR, ADN, IMDG, IATA
 - ◊ **14.2 UN proper shipping name**
 - ◊ ADR, ADN, IMDG, IATA
 - ◊ **14.3 Transport hazard class(es)**
 - ◊ ADR, ADN, IMDG, IATA
 - ◊ Class
 - ◊ **14.4 Packing group**
 - ◊ ADR, IMDG, IATA
 - ◊ **14.5 Environmental hazards:**
 - ◊ **14.6 Special precautions for user**
 - ◊ **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**
 - ◊ UN "Model Regulation":
- Void
Void
Void
Void
Not applicable.
Not applicable.
Not applicable.
Void

. 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 nicht zutreffend.
- 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



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- ◊ Signal word Warning
- ◊ Hazard statements
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- ◊ Precautionary statements
- P264 Wash thoroughly after handling.
- P280 Wear protective gloves / eye protection / face protection.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P362+P364 Take off contaminated clothing and wash it before reuse.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- ◊ Directive 2012/18/EU
- ◊ Named dangerous substances - ANNEX I Substance is not listed.
- ◊ REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

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- ◊ National regulations:
- ◊ Waterhazard class: Klasse A (Assessment by list)
- ◊ **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.
 - H410 Very toxic to aquatic life with long lasting effects.
- ◊ **Department issuing SDS:** Regulatory Affairs
- ◊ **Contact:** Dr. Maja Zippel
- ◊ **Abbreviations and acronyms:**
 - ADR: Accord européen sur le transport 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)
 - VOC: Volatile Organic Compounds (USA, EU)
 - 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
 - Eye Irrit. 2: Serious eye damage/eye 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 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
- ◊ * Data compared to the previous version altered.