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according to ChemV 2015 - SR 813.11

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

◦ **1.1 Product identifier**

◦ Trade name: **Salbeiöl PH 11 / 01-5750**

◦ Article number: P0128228
◦ 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

Flam. Liq. 3	H226 Flammable liquid and vapour.
Acute Tox. 4	H302 Harmful if swallowed.
Skin Sens. 1	H317 May cause an allergic skin reaction.
STOT SE 2	H371 May cause damage to the lung. Route of exposure: Inhalation.
Asp. Tox. 1	H304 May be fatal if swallowed and enters airways.
Aquatic Chronic 2	H411 Toxic to aquatic life with long lasting effects.

◦ **2.2 Label elements**
◦ Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.
◦ Hazard pictograms

GHS02 GHS07 GHS08 GHS09

◦ Signal word Danger

◦ Hazard-determining components of labelling:
Thujon
Eucalyptol
Bornan-2-on
l-.alpha.-Pinene
DIPENTENE
beta-Pinene
3,7-Dimethyl-1,6-octadien-3-ol
4-Methyliden-1-propan-2-ylbicyclo[3.1.0]hexan
Terpinolene
3,7-Dimethylocta-2,6-dien-1-ole
◦ Hazard statements
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H371 May cause damage to the lung. Route of exposure: Inhalation.
H304 May be fatal if swallowed and enters airways.
H411 Toxic to aquatic life with long lasting effects.
◦ Precautionary statements

P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P321	Specific treatment (see on this label).

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P330 Rinse mouth.
P331 Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P362+P364 Take off contaminated clothing and wash it before reuse.
P405 Store locked up.
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.

. SECTION 3: Composition/information on ingredients

◦ **3.2 Chemical characterisation: Mixtures**
◦ CAS-No: 97952-71-1
◦ EINECS-No: 308-365-0
◦ Description: Mixture of substances listed below with nonhazardous additions.

◦ Dangerous components:

CAS: 546-80-5	Thujon	>25-50%
EINECS: 208-912-2	Acute Tox. 4, H302	
CAS: 76-22-2	Bornan-2-on	>10-20%
EINECS: 200-945-0	Flam. Sol. 1, H228; STOT SE 2, H371; Acute Tox. 4, H302; Acute Tox. 4, H332	
CAS: 470-82-6	Eucalyptol	>10-20%
EINECS: 207-431-5	Flam. Liq. 3, H226; Skin Sens. 1B, H317	
CAS: 79-92-5	Camphene	>5-<10%
EINECS: 201-234-8	Flam. Sol. 1, H228; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Eye Irrit. 2, H319	
CAS: 7785-26-4	l-.alpha.-Pinene	>2,5-5%
EINECS: 232-077-3	Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Irrit. 2, H315; Skin Sens. 1B, H317	
CAS: 507-70-0	Borneol	>2,5-5%
EINECS: 208-080-0	Flam. Sol. 1, H228	
CAS: 138-86-3	DIPENTENE	≥1-<2,5%
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	
CAS: 18172-67-3	beta-Pinene	≥1-<2,5%
EINECS: 242-060-2	Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Irrit. 2, H315; Skin Sens. 1B, H317	
CAS: 98-55-5	alpha-Terpineol	1-2,5%
EINECS: 202-680-6	Skin Irrit. 2, H315; Eye Irrit. 2, H319	
CAS: 78-70-6	3,7-Dimethyl-1,6-octadien-3-ol	≥0,1-<1%
EINECS: 201-134-4	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1B, H317	
CAS: 3387-41-5	4-Methyliden-1-propan-2-ylbicyclo[3.1.0]hexan	≥0,1-<1%
	Flam. Liq. 3, H226; Asp. Tox. 1, H304; Skin Irrit. 2, H315; Skin Sens. 1, H317	
CAS: 586-62-9	Terpinolene	≥0,1-<0,25%
EINECS: 209-578-0	Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Sens. 1B, H317	
CAS: 106-24-1	3,7-Dimethylocta-2,6-dien-1-ole	≥0,1-<1%
EINECS: 203-377-1	Eye Dam. 1, H318; Skin Irrit. 2, H315; Skin Sens. 1, H317	

◦ Additional information: For the wording of the listed hazard phrases refer to section 16.

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. SECTION 4: First aid measures

◦ ***4.1 Description of first aid measures***
◦ *General information:*
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
◦ *After inhalation:*
Supply fresh air and to be sure call for a doctor.
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.*
◦ *After swallowing: 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***
Wear protective equipment. Keep unprotected persons away.
◦ ***6.2 Environmental precautions:***
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.
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.

. SECTION 7: Handling and storage

◦ ***7.1 Precautions for safe handling*** *Ensure good ventilation/exhaustion at the workplace.*
◦ *Information about fire - and explosion protection:*
Keep ignition sources away - Do not smoke.
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*

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

. 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:*

76-22-2 Bornan-2-on

MAK (Switzerland) Long-term value: 13 mg/m³, 2 ppm
◦ *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.
Store protective clothing separately.
◦ *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.*
◦ *Penetration time of glove material*
The exact break trough 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:	*Yellowish*
◦ *Odour:*	*Characteristic*
◦ *Odour threshold:*	*Not determined.*
◦ *pH-value:*	*Not determined.*
◦ *Melting point/freezing point:*	*Undetermined.*
◦ *Flash point:*	*56 °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:*	*0,918 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)* *48,88 %*
◦ ***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*
Harmful if swallowed.
◦ *LD/LC50 values relevant for classification:*
ATE (Acute Toxicity Estimates)
Oral LD50 1.229 mg/kg
Inhalative LC50 61,7 mg/l
◦ *Primary irritant effect:*
◦ *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.
◦ *CMR effects (carcinogenity, 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*
May cause damage to the lung. Route of exposure: Inhalation.
◦ *STOT-repeated exposure Based on available data, the classification criteria are not met.*
◦ *Aspiration hazard*
May be fatal if swallowed and enters airways.

. 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.*
◦ *Ecotoxical effects:*
◦ *Remark: Toxic for fish*
◦ *Additional ecological information:*
◦ *General notes:*
Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.

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Danger to drinking water if even extremely small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms

◦ **12.5 Results of PBT and vPvB assessment**
◦ *PBT: Not applicable.*
◦ *vPvB: Not applicable.*
◦ **12.6 Other adverse effects** *No further relevant information available.*

. 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, IMDG, IATA*	*UN1993*
◦ **14.2 UN proper shipping name**	
◦ *ADR*	*FLAMMABLE LIQUID, N.O.S. (1,8-Cineol, alpha-PINENE), ENVIRONMENTALLY HAZARDOUS*
◦ *IMDG*	*FLAMMABLE LIQUID, N.O.S. (1,8-Cineol, alpha-PINENE), MARINE POLLUTANT*
◦ *IATA*	*FLAMMABLE LIQUID, N.O.S. (containing 1,8-Cineol, alpha-PINENE)*
◦ **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:**	*Product contains environmentally hazardous substances: Camphene, alpha-Pinene*
◦ *Marine pollutant:*	*Yes* *Symbol (fish and tree)*
◦ *Special marking (ADR):*	*Symbol (fish and tree)*
◦ **14.6 Special precautions for user**	*Warning: Flammable liquids.*
◦ *Danger code (Kemler):*	*30*
◦ *EMS Number:*	*F-E,S-E*
◦ *Stowage Category*	*A*
◦ **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**	*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*

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◦ *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 FLAMMABLE LIQUID, N.O.S. (1,8-CINEOL, ALPHA-PINENE), 3, III, ENVIRONMENTALLY HAZARDOUS*

. SECTION 15: Regulatory information

◦ ***15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture***
◦ *Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.*
◦ *Hazard pictograms*

GHS02 GHS07 GHS08 GHS09

◦ *Signal word Danger*

◦ *Hazard-determining components of labelling:*
Thujon
Eucalyptol
Bornan-2-on
l-.alpha.-Pinene
DIPENTENE
beta-Pinene
3,7-Dimethyl-1,6-octadien-3-ol
4-Methyliden-1-propan-2-ylbicyclo[3.1.0]hexan
Terpinolene
3,7-Dimethylocta-2,6-dien-1-ole
◦ *Hazard statements*
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H371 May cause damage to the lung. Route of exposure: Inhalation.
H304 May be fatal if swallowed and enters airways.
H411 Toxic to aquatic life with long lasting effects.
◦ *Precautionary statements*

P301+P310	*IF SWALLOWED: Immediately call a POISON CENTER/ doctor.*
P321	*Specific treatment (see on this label).*
P330	*Rinse mouth.*
P331	*Do NOT induce vomiting.*
P303+P361+P353	*IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].*
P362+P364	*Take off contaminated clothing and wash it before reuse.*
P405	*Store locked up.*
P501	*Dispose of contents/container in accordance with local/regional/national/international regulations.*

◦ *Directive 2012/18/EU*
◦ *Named dangerous substances - ANNEX I None of the ingredients is listed.*
◦ *Seveso category*
E2 Hazardous to the Aquatic Environment
P5c FLAMMABLE LIQUIDS
◦ *Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t*
◦ *Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t*
◦ *REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 40*

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◦ ***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.
H228 Flammable solid.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H371 May cause damage to the lung. Route of exposure: Inhalation.
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)
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
Flam. Sol. 1: Flammable solids – Category 1
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Skin Sens. 1B: Skin sensitisation – Category 1B
STOT SE 2: Specific target organ toxicity (single exposure) – Category 2
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
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2