

Safety data sheet

gemäß ChemV 2015 – SR 813.11

Printing date 08.08.2017

Version 112

Revision: 08.08.2017

. SECTION 1: Bezeichnung des Stoffs beziehungsweise der Zubereitung und des Unternehmens

◇ 1.1 Product identifier

◇ Trade name: **Campher nat. chin. EuAB / 06-2428**

◇ Article number: S0400971

◇ CAS Number:

76-22-2

◇ EC number:

200-945-0

◇ Registration number -

◇ **1.2 Relevante identifizierte Verwendungen des Stoffs oder der Zubereitung und Verwendungen von denen abgeraten wird**
No further relevant information available.

◇ Application of the substance / the mixture Flavour/Fragrance

◇ 1.3 Einzelheiten zur Herstellerin, die das Sicherheitsdatenblatt bereitstellt

◇ 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 Einstufung des Stoffs oder der Zubereitung

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

Flam. Sol. 1 H228 Flammable solid.

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H332 Harmful if inhaled.

STOT SE 2 H371 May cause damage to the lung. Route of exposure: Inhalation.

◇ 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 GHS08

◇ Signal word Danger

◇ Hazard-determining components of labelling:

Bornan-2-on

◇ Hazard statements

H228 Flammable solid.

H302+H332 Harmful if swallowed or if inhaled.

H371 May cause damage to the lung. Route of exposure: Inhalation.

◇ 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.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

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

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.

(Contd. on page 2)

Safety data sheet

gemäß ChemV 2015 – SR 813.11

Printing date 08.08.2017

Version 112

Revision: 08.08.2017

Trade name: Campher nat. chin. EuAB / 06-2428

◊ vPvB: Not applicable.

(Contd. of page 1)

. SECTION 3: Composition/information on ingredients

◊ 3.1 Chemical characterisation: Substances

- ◊ CAS No. Description
76-22-2 Bornan-2-on
- ◊ Identification number(s)
- ◊ EC number: 200-945-0

. 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. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
- ◊ After skin contact: Generally the product does not irritate the skin.
- ◊ 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 Besondere vom Stoff oder der Zubereitung ausgehende Gefahren
During heating or in case of fire poisonous gases are produced.
- ◊ 5.3 Advice for firefighters
- ◊ Protective equipment: Mouth respiratory protective device.

. SECTION 6: Accidental release measures

◊ 6.1 Personal precautions, protective equipment and emergency procedures

- Mount respiratory protective device.
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:
Dispose contaminated material as waste according to item 13.
Treat with 2 % sodium hydroxide solution.
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.

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(Contd. on page 3)

Safety data sheet

gemäß ChemV 2015 – SR 813.11

Printing date 08.08.2017

Version 112

Revision: 08.08.2017

Trade name: Campher nat. chin. EuAB / 06-2428

(Contd. of page 2)

. SECTION 7: Handling and storage

◊ 7.1 Precautions for safe handling

- Thorough dedusting.
- Prevent formation of dust.
- ◊ Information about fire - and explosion protection:
Keep ignition sources away - Do not smoke.
Protect from heat.
- Protect against electrostatic charges.
- Keep respiratory protective device available.

◊ 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: 4.1 B
- ◊ 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 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:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- ◊ 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: Not required.

. SECTION 9: Physical and chemical properties

- ◊ 9.1 Information on basic physical and chemical properties
- ◊ General Information
- ◊ Appearance:
Form: Solid

(Contd. on page 4)

Safety data sheet

gemäß ChemV 2015 – SR 813.11

Printing date 08.08.2017

Version 112

Revision: 08.08.2017

Trade name: Campher nat. chin. EuAB / 06-2428

(Contd. of page 3)

Colour:	Not determined.
◊ Odour:	Characteristic
◊ Odour threshold:	Not determined.
◊ pH-value:	Not applicable.
◊ Melting point/freezing point:	174 °C
◊ Flash point:	65 °C
◊ Flammability (solid, gas):	Highly flammable.
◊ Ignition temperature:	460 °C
◊ Decomposition temperature:	Not determined.
◊ Auto-ignition temperature:	Not determined.
◊ Explosive properties:	Not determined.
◊ Explosion limits:	
Lower:	0,6 Vol %
Upper:	4,5 Vol %
◊ Density at 20 °C:	1 g/cm ³
◊ Bulk density at 20 °C:	1,55556 kg/m ³
◊ Relative density	Not determined.
◊ Vapour density	Not applicable.
◊ Evaporation rate	Not applicable.
◊ Solubility in / Miscibility with water:	Not miscible or difficult to mix.
◊ Partition coefficient: n-octanol/water:	Not determined.
◊ VOC (EC)	0,00 %
◊ 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 or if inhaled.
- ◊ **LD/LC50 values relevant for classification:**
- ATE (Acute Toxicity Estimates)**
- Oral LD50 1310 mg/kg (mouse)
- Inhalative LC50 1,5 mg/l
- 76-22-2 Bornan-2-on**
- Oral LD50 1310 mg/kg (mouse)
- Dermal LD50 >5000 mg/kg (rabbit)
- Inhalative LC50 1,5 mg/l (ATE)

(Contd. on page 5)

Safety data sheet

gemäß ChemV 2015 – SR 813.11

Printing date 08.08.2017

Version 112

Revision: 08.08.2017

Trade name: Campher nat. chin. EuAB / 06-2428

(Contd. of page 4)

- ◊ **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** Based on available data, the classification criteria are not met.
- ◊ **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** 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 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- ◊ **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** UN2717
- ◊ **14.2 UN proper shipping name**
- ◊ **ADR, IMDG, IATA** CAMPHOR, synthetic
- ◊ **14.3 Transport hazard class(es)**
- ◊ **ADR, IMDG, IATA** 4.1 Flammable solids, self-reactive substances and solid desensitised explosives.
- ◊ **Class** 4.1
- ◊ **Label**
- ◊ **14.4 Packing group** III
- ◊ **ADR, IMDG, IATA**
- ◊ **14.5 Environmental hazards:**
- ◊ **Marine pollutant:** No

(Contd. on page 6)

Safety data sheet

gemäß ChemV 2015 – SR 813.11

Printing date 08.08.2017

Version 112




Revision: 08.08.2017

Trade name: Campher nat. chin. EuAB / 06-2428

(Contd. of page 5)

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| <ul style="list-style-type: none"> ◊ 14.6 Special precautions for user ◊ Danger code (Kemler): ◊ EMS Number: ◊ Stowage Category ◊ 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code ◊ Transport/Additional information: <hr style="border-top: 1px dashed black;"/> <ul style="list-style-type: none"> ◊ ADR ◊ Limited quantities (LQ) ◊ Excepted quantities (EQ) <hr style="border-top: 1px dashed black;"/> <ul style="list-style-type: none"> ◊ Transport category ◊ Tunnel restriction code <hr style="border-top: 1px dashed black;"/> <ul style="list-style-type: none"> ◊ IMDG ◊ Limited quantities (LQ) ◊ Excepted quantities (EQ) <hr style="border-top: 1px dashed black;"/> <ul style="list-style-type: none"> ◊ UN "Model Regulation": | <p>Warning: Flammable solids, self-reactive substances and solid desensitised explosives.</p> <p>40</p> <p>F-A, S-I</p> <p>A</p> <p>Not applicable.</p>
<p>5 kg</p> <p>Code: E1</p> <p>Maximum net quantity per inner packaging: 30 g</p> <p>Maximum net quantity per outer packaging: 1000 g</p> <p>3</p> <p>E</p>
<p>5 kg</p> <p>Code: E1</p> <p>Maximum net quantity per inner packaging: 30 g</p> <p>Maximum net quantity per outer packaging: 1000 g</p> <p>UN 2717 CAMPHOR, SYNTHETIC, 4.1, III</p> |
|---|---|

SECTION 15: Regulatory information

- ◊ **15.1 Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder die Zubereitung**
 - ◊ Labelling according to Regulation (EC) No 1272/2008 The substance is classified and labelled according to the CLP regulation.
 - ◊ Hazard pictograms
- 


GHS02 GHS07 GHS08
- ◊ Signal word Danger
 - ◊ Hazard-determining components of labelling:
 - Bornan-2-on
 - ◊ Hazard statements
 - H228 Flammable solid.
 - H302+H332 Harmful if swallowed or if inhaled.
 - H371 May cause damage to the lung. Route of exposure: Inhalation.
 - ◊ 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.
 - P260 Do not breathe dust/fume/gas/mist/vapours/spray.
 - P280 Wear protective gloves/protective clothing/eye protection/face protection.
 - 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 Substance is not listed.
 - ◊ National regulations:
 - Klassierung wassergefährdender Flüssigkeiten: Klasse B (Self-assessment)
 - VOC (EU) 0,00 %
 - VOCV (CH) 0,00 %

(Contd. on page 7)

Safety data sheet

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

(Contd. of page 6)

. 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.

- ◊ Department issuing SDS: Regulatory Affairs
- ◊ Contact: Dr. Maja Zippel
- ◊ 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 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
 - CAS: Chemical Abstracts Service (division of the American Chemical Society)
 - GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
 - 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. Sol. 1: Flammable solids – Category 1
 - Acute Tox. 4: Acute toxicity – Category 4
 - STOT SE 2: Specific target organ toxicity (single exposure) – Category 2
- ◊ * Data compared to the previous version altered.

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