

# Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



## 78710 Camphor

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Revised edition: 05.02.2021

Version: 3.0

Printed: 27.04.2021

### 1. Identification of the Substance/Mixture and of the Company/Undertaking

#### 1.1. Product Identifier

*Product Name:* Camphor

*Article No.:* 78710

#### 1.2. Relevant identified Uses of the Substance or Mixture and Uses advised against

*Identified uses:*

*Pharmaceutical production and analysis*

*Uses advised against:*

#### 1.3. Details of the Supplier of the Safety Data Sheet (Producer/Importer)

*Company:* Kremer Pigmente GmbH & Co. KG

*Address:* Hauptstr. 41-47, 88317 Aichstetten, Germany

*Tel./Fax.:* Tel +49 7565 914480, Fax +49 7565 1606

*Internet:* www.kremer-pigmente.com

*E-Mail:* info@kremer-pigmente.com

*Importer:* --

#### 1.4. Emergency No.

*Emergency No.:* +49 7565 914480 (Mon-Fri 8:00 - 17:00)

#### 1.4.2 Poison Center:

### 2. Hazards Identification

#### 2.1. Classification of the Substance or Mixture

*Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)*

*Flammable solids, hazard category 2  
Skin irritation, hazard category 2  
Serious eye damage, hazard category 1  
Acute toxicity (inhalation), hazard category 4  
Specific target organ toxicity (single exposure), hazard category 2*

H228 Flammable solid.

Cat.: 2

H315 Causes skin irritation.

Cat.: 2

H318 Causes serious eye damage.

Cat.: 1

H332 Harmful if inhaled.

Cat.: 4

H371 May cause damage to organs.

Cat.: 2

*Possible Environmental Effects:*

#### 2.2. Label Elements

*Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)*

*Hazard designation:*

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GHS02-1



GHS05



GHS07



GHS08

*Signal word:*

Warning

*Hazard designation:*

H228	Flammable solid.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H371	May cause damage to organs.

*Safety designation:*

P210	Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/ clothing/ eye/ face protection.
P302+P352	If on skin: Wash with soap and water.
P304+P340	If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses and continue rinsing.
P310	Immediately call a poison center or physician.
P332+P313	If skin irritation occurs: Get medical attention.
P362	Take off contaminated clothing and wash before reuse.
P370+P378	In case of fire: use water spray, foam, carbon dioxide or dry extinguishing powder for extinction.
P405	Store locked up.
P501	Dispose of contents/ container according to regional, national and international regulations.

*Hazardous components for labelling:*

2.3. Other Hazards

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## 3. Composition/Information on Ingredients

3.1. Substance

3.2. Mixture

*Chemical Characterization:*

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2-one

### Information on Components / Hazardous Ingredients:

Camphor ((+)-Bornan-2-one) (H228-315-318-332-371); REACH Reg. No. 01-2120768421-55	100 %	CAS-Nr: 464-49-3 EINECS-Nr: 207-355-2 EC-Nr:
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### Additional information:

## 4. First Aid Measures

### 4.1. Description of the First Aid Measures

#### General information:

*Immediately get medical help.*

#### After inhalation:

*Supply fresh air.*

*Consult physician if symptoms persist.*

#### After skin contact:

*Remove contaminated clothing. Wash off immediately with plenty of water and soap.*

#### After eye contact:

*Remove contact lens. Rinse open eyes with plenty of water (10-15 min). Consult physician.*

*Immediately call an ophthalmologist.*

#### After ingestion:

*Immediately get medical help.*

*Drink plenty of water.*

*Do not induce vomiting without medical advice.*

### 4.2. Most important Symptoms and Effects, both Acute and Delayed

#### Symptoms:

*Irritation of eyes, skin and respiratory tract.*

#### Effects:

### 4.3. Indication of any Immediate Medical Attention and special Treatment needed

#### Treatment:

*No information available.*

## 5. Fire-Fighting Measures

### 5.1. Extinguishing Media

#### Suitable extinguishing media:

*Foam, carbon dioxide (CO<sub>2</sub>), extinguishing powder, water.*

#### Unsuitable extinguishing media:

*Water with full jet.*

### 5.2. Special Hazards arising from the Substance or Mixture

#### Special hazards:

*Formation of hazardous combustion gases possible in the event of*

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*fire.*  
*Danger of dust explosion.*  
*Vapor is heavier than air and spreads along the ground.*  
*In case of fire: formation of carbon monoxide, carbon dioxide.*

### 5.3. Advice for Firefighters

*Protective equipment:*

*Wear self-contained respiratory protective device.*

*Further information:*

*Contaminated extinguishing water and debris should be disposed of according to local regulations.*

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## 6. Accidental Release Measures

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

*Personal precautions:*

*Wear appropriate protective equipment. Keep spectators away.*  
*Avoid contact with skin, eyes and clothing.*  
*Avoid formation of dust.*  
*Ensure adequate ventilation.*

### 6.2. Environmental Precautions

*Environmental precautions:*

*Do not discharge into drains; risk of explosion!*

### 6.3. Methods and Material for Containment and Cleaning Up

*Methods and material:*

*Take up mechanically and collect in suitable containers for disposal. Avoid dust formation.*  
*Clean up with detergents.*

### 6.4. Reference to other Sections

*See Section 13 for information on disposal.*

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## 7. Handling and Storage

### 7.1. Precautions for Safe Handling

*Instructions on safe handling:*

*Avoid contact with eyes and skin.*  
*Avoid formation of dust.*

*Hygienic measures:*

*Do not eat or drink during work. Do not smoke.*  
*Wash hands at the end of work. Preventive skin protection recommended.*

### 7.2. Conditions for Safe Storage, including any Incompatibilities

*Storage conditions:*

*Store in tightly sealed containers in a dry and cool room.*  
*Store at room temperature.*

*Requirements for storage areas and containers:*

*Store the product in the original container.*

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### Information on fire and explosion protection:

Vapors may form an explosive mixture with air.  
Keep away from open flames, hot surfaces and sources of ignition.  
Take precautionary measures against static discharges.

### Storage class:

4.1 B; flammable solids (TRGS 510)

### Further Information:

Storage temperature: 5 - 25°C.

### 7.3. Specific End Use(s)

#### Further information:

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## 8. Exposure Controls/Personal Protection

### 8.1. Parameters to be Controlled

#### Parameters to be controlled (DE):

none known

#### Parameters to be controlled:

#### Derived No-Effect Level (DNEL):

(+)-Bornan-2-one:  
10 mg/kg bw/d (worker, skin contact, long-term exposition (chronic) - systemic effects)  
17.63 mg/m<sup>3</sup> (worker, inhalation, long-term exposition (chronic) - systemic effects)  
5 mg/kg bw/d (consumer, swallowing, long-term exposition (chronic) - systemic effects)  
5 mg/kg bw/d (consumer, skin contact, long-term exposition (chronic) - systemic effects)  
4.35 mg/m<sup>3</sup> (consumer, inhalation, long-term exposition (chronic) - systemic effects)

#### Predicted No-Effect Concentration (PNEC):

(+)-Bornan-2-one:  
Fresh water: 1.71 µg/l  
Sea water: 0.171 µg/l  
Fresh water sediment: 0.139 mg/kg  
Sea water sediment: 0.017 mg/kg  
Soil: 0.013 mg/kg  
Sewage treatment system (STP): 1 mg/l

#### Additional Information:

### 8.2. Exposure Controls

#### Technical protective measures:

#### Personal Protection

#### General protective measures:

Do not inhale dust. Do not eat, drink or smoke while working.  
Wash hands before breaks and at the end of work.

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### *Respiratory protection:*

*Respiratory equipment required in case of insufficient ventilation, filter combination type A-P2.*

### *Hand protection:*

*Protective gloves (EN 374)*

### *Protective glove material:*

*Nitrile rubber (> 480 min, 0.11 mm).*

### *Eye protection:*

*Safety glasses with protective shields (EN 166).*

### *Body protection:*

*Protective clothing, chemical resistant.*

### *Environmental precautions:*

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## 9. Physical and Chemical Properties

### 9.1. Information on Basic Physical and Chemical Properties

<i>Form:</i>	<i>solid</i>
<i>Color:</i>	<i>colorless</i>
<i>Odor:</i>	<i>characteristic</i>
<i>Odor threshold:</i>	<i>No information available.</i>
<i>pH-Value:</i>	<i>not applicable</i>
<i>Melting temperature:</i>	<i>178°C</i>
<i>Boiling temperature:</i>	<i>210°C</i>
<i>Flash point:</i>	<i>66°C</i>
<i>Evaporation rate:</i>	<i>not applicable</i>
<i>Flammability (solid, gas):</i>	<i>460°C</i>
<i>Upper explosion limit:</i>	<i>4.5 Vol. %</i>
<i>Lower explosion limit:</i>	<i>0.6 Vol. %</i>
<i>Vapor pressure:</i>	<i>0.052 kPa (20°C)</i>
<i>Vapor density:</i>	<i>No information available.</i>
<i>Density:</i>	<i>1 g/cm<sup>3</sup> (20°C)</i>
<i>Solubility in water:</i>	<i>1.275 g/l soluble</i>
<i>Coefficient of variation (n-Octanol/Water):</i>	<i>2.3 logPOW (20°C)</i>
<i>Auto-ignition temperature:</i>	<i>72°C</i>
<i>Decomposition temperature:</i>	

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*not applicable*

*Viscosity, dynamic:*

*not available*

*Explosive properties:*

*not available*

*Oxidizing properties:*

*No information available.*

*Bulk density:*

### 9.2. Further Information

*Solubility in solvents:*

*Viscosity, kinematic:*

*Burning class:*

*Solvent content:*

*Solid content:*

*Particle size:*

*Other information:*

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## 10. Stability and Reactivity

### 10.1. Reactivity

*Risk of explosion when exposed to materials to avoid.*

### 10.2. Chemical Stability

*Stable if used according to specifications.*

### 10.3. Possibility of Hazardous Reactions

*Risk of explosion with strong oxidizing agents, ozone, CrO<sub>3</sub>.  
Exothermic reaction with: potassium permanaganate.*

### 10.4. Conditions to Avoid

*Conditions to avoid:*

*Avoid heat, open fire and other ignition sources.*

*Thermal decomposition:*

### 10.5. Incompatible Materials

*Strong oxidizing agents, ozone, CrO<sub>3</sub>, potassium permanganate.*

### 10.6. Hazardous Decomposition Products

*Carbon monoxide and dioxide.*

### 10.7. Further Information

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## 11. Toxicological Information

### 11.1. Information on Toxicological Effects

*Acute Toxicity*

*LD50, oral: > 5000 mg/kg (rat; OECD 423)*

*LD50, dermal: > 2000 mg/kg (rabbit; OECD 402)*

*LC50, inhalation: 0.5 mg/l (4h; rat; OECD 403)*

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### Primary effects

#### Irritant effect on skin:

Skin irritant (1h, human; OECD 439)

#### Irritant effect on eyes:

Irritant effect: irreversible effects on eye (4h, bovine; OECD 437)

#### Inhalation:

No information available.

#### Ingestion:

No information available

#### Sensitization:

Not sensitizing (skin, OECD 442 C)

#### Mutagenicity:

In vitro Mammalian Cell Gene Mutation Test (OECD 476): negative

#### Reproductive toxicity:

No relevant data found.

#### Carcinogenicity:

No relevant data found.

#### Teratogenicity:

No information available.

#### Specific target organ toxicity (STOT):

Single exposure: no information available.

Repeated exposure: NOEL (inhalation): 330 mg/m<sup>3</sup> (4d, rat, m/f; OECD 412); NOAEL (dermal): 250 mg/kg bw/d (mouse; ECHA)

#### Additional toxicological information:

Aspiration hazard: no data available

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## 12. Ecological Information

### 12.1. Aquatic Toxicity

#### Fish toxicity:

LC50: 33.25 mg/l (96h, *Danio rerio*; OECD 203)

#### Daphnia toxicity:

EC50: 4.23 mg/l (48h, *Daphnia magna*; OECD 202)

#### Bacteria toxicity:

No data available.

#### Algae toxicity:

EC50: 1.71 mg/l (72h, *Pseudokirchneriella subcapitata*; OECD 201)

### 12.2. Persistency and Degradability

> 70 %; readily biodegradable (28d)

### 12.3. Bioaccumulation

logPow: 2.3 (20°C; ECHA)

### 12.4. Mobility

No information available.

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### 12.5. Results of PBT- und vPvP Assessment

*Classified as PBT substance / Classified as a vPvB substance.*

### 12.6. Other Adverse Effects

*Water hazard class:*

*1 (German Regulation) (Assessment by list): slightly hazardous.*

*Behaviour in sewage systems:*

*Further ecological effects:*

*When used properly, no ecological problems expected.*

*AOX Value:*

*No data available.*

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## 13. Disposal Considerations

### 13.1. Waste Treatment Methods

*Product:*

*Dispose of according to official national and local regulations.  
Must not be disposed together with household garbage.*

*European Waste Code (EWC):*

*Uncleaned packaging:*

*Contaminated packaging must be disposed like the substance.*

*Waste Code No.:*

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## 14. Transport Information

### 14.1. UN Number

*ADR, IMDG, IATA* 1325

### 14.2. UN Proper Shipping Name

*ADR/RID: ENTZÜNDBARER ORGANISCHER FESTER STOFF, N.A.G. ((+)-Bornan-2-on)*

*IMDG/IATA: FLAMMABLE SOLID, ORGANIC, N.O.S. ((+)-Bornan-2-one)*

### 14.3. Transport Hazard Classes

*ADR Class: 4.1*

*Hazard no.: 4.1*

*Classification code: F1*

*Tunnel restriction code: E*

*IMDG Class (sea): 4.1*

*Hazard no.: 4.1*

*EmS No.: F-A, S-G*

*IATA Class: 4.1*

*Hazard no.: 4.1*

### 14.4. Packaging Group

*ADR/RID: II*

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*IMDG:* II

*IATA:* II

14. 5. Environmental Hazards

None

14. 6. Special Precautions for User

not applicable

14. 7. Transportation in Bulk according to Annex II of MARPOL 73/78 and IBC-Code

14. 8. Further Information

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### 15. Regulatory Information

15. 1. Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

*Water hazard class:*

1, slightly hazardous for water (according to the German Regulation AwSV)

*Local regulations on chemical accidents:*

*Employment restrictions:*

*Restriction and prohibition of application:*

EC. REACH, Section XVII, Restrictions on the Manufacture, Placing on the Market and Use of Certain Dangerous Substances, Preparations and Articles, Registered no. 40

*Technical instructions on air quality:*

15. 2. Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for this product.

EC SVHC-List: This product does not contain a substance in the candidate list for substances of very high concern (REACH Regulation (EC) 1907/2006, Article 57)

15. 3. Further Information

EC. REACH, Annex XIV, Candidate List of Substances of very High Concern (SVHC): not regulated / not applicable

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### 16. Other Information

This product should be stored, handled and used in accordance with good hygiene practices and in conformity with any legal regulations. This information contained herein is based on the present state of knowledge and is intended to describe our product from the point of view of safety requirements. It should be therefore not be construed as guaranteeing specific properties.