Material Safety Data Sheet
in accordance with guideline EC No. 1907/2006

Date updated: 02/27/2012
Date printed: 06/22/2015
Version: 02

1. General

Product Name: Cannabidiol, 1 mg/ml in Methanol, 1 ml

Use: Analytical reference

Company Identification:
THC Pharm GmbH The Health Concept
Offenbacher Landstr. 368 D
60599 Frankfurt
Germany
Telephone: +49-69-13 02 1978-3
Fax: +49-69-13 02 1978-9
Emergency Number: +49-69-13 02 1978-0

2. Hazards Identification

Dangerous good in excepted / limited quantity according to ADR / IATA / IMDG


Hazard statements: H225-331-311-301-370
H225 Highly flammable liquid and vapor.
H331 Toxic if inhaled.
H311 Toxic in contact with skin.
H301 Toxic if swallowed.
H370 Causes damage to eyes, nervous system, and liver if inhaled, in contact with skin, and if swallowed

Precautionary statements: P210-233-280-302+352
P210 Keep away from sparks, open flames, and hot surfaces. – No smoking.
P233 Keep container tightly closed.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+352 IF ON SKIN: Wash with plenty of soap and water.
3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Product Name</th>
<th>CAS</th>
<th>EC no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannabidiol, 1 mg/ml in Methanol, 1 ml</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>Percent</th>
<th>CAS</th>
<th>EC no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannabidiol</td>
<td>0.1</td>
<td>13956-29-1</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Synonyms: CBD

Chemical Name: (1'R,2'R)-5'-methyl-4-pentyl-2'-(prop-1-en-2-yl)-1',2',3',4'-tetrahydro-[1,1'-biphenyl]-2,6-diol

Molecular Weight: 314.46 g/mol

Chemical Formula: C_{21}H_{30}O_{2}

4. First Aid Measures

In case of accidental Inhalation:

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Skin Contact:

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

Eye Contact:

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

In case of accidental Ingestion:

If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately.

5. Fire fighting Measures

Appropriate extinguishing agent:

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

Inappropriate extinguishing agent:

Not established.

Special risks:
Specific Hazard(s): Flammable liquid. Emits toxic fumes under fire conditions. Explosion Hazards: Vapor may travel considerable distance to source of ignition and flash back. Container explosion may occur under fire conditions.

Special protective equipment for fire fighters:
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6. Counter Measures at Accidental Release

Personal precaution procedures to be followed in case of leak or spill:
Evacuate area. Shut off all sources of ignition.

Procedure(s) of personal precautions:
Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

Environmental precaution(s):
Do not allow material to enter drains or water courses. Avoid contaminating sewers and waterways with this material.

Methods for cleaning up:
Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete.

7. Handling and Storage

Details for handling:
Directions for Safe Handling: Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Do not use if skin is cut or scratched. Wash thoroughly after handling.

Details for storage:
Upright, protected from light, and tightly closed at −20 °C.

8. Exposure Control, Personal Protection

Engineering controls:
Safety shower and eye bath. Use nonsparking tools. Use only in a chemical fume hood.

General hygiene measures:
Wash thoroughly after handling. Discard contaminated clothing and shoes.

Exposure Limit:
n/a

Personal Protective Equipment:
Respiratory Protection: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Use supplied-air or SCBA respirators. Europe permits the use of type AXBEK full-face cartridge respirators (EN 14387).

Hand Protection: Compatible chemical-resistant gloves.

Eye Protection: Chemical safety goggles.

9. Physical and Chemical Properties

**Appearance**

**Form:** liquid

**Color:** colorless

**Odor:** weak alcoholic odor

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>at Temperature or Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>BP/BP Range:</td>
<td>64.6°C - 64.7°C</td>
<td>760 mm Hg</td>
</tr>
<tr>
<td>CMP/MP Range:</td>
<td>-98.0 °C</td>
<td>n/a</td>
</tr>
<tr>
<td>Flash Point:</td>
<td>11 °C Method</td>
<td>closed cup</td>
</tr>
<tr>
<td>Flammability:</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Autoignition Temp:</td>
<td>385 °C</td>
<td>n/a</td>
</tr>
<tr>
<td>Oxidizing Properties:</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Explosive Properties:</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Explosion Limits:</td>
<td>Lower: 6 %</td>
<td>Upper: 36 %</td>
</tr>
<tr>
<td>Vapor Pressure:</td>
<td>97.68 mm Hg</td>
<td>20 °C</td>
</tr>
<tr>
<td>SG/Density:</td>
<td>0.791 g/cm³</td>
<td>n/a</td>
</tr>
<tr>
<td>Partition Coefficient:</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Viscosity:</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Vapor Density:</td>
<td>1.1 g/l</td>
<td>n/a</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Bulk Density:</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Decomposition Temp.:</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Solvent Content:</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Water Content:</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Surface Tension:</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Conductivity:</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Miscellaneous Data:</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Solubility:</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>
10. Stability and Reactivity

Stability:
Stable.

Materials to Avoid: Acids, Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents.

Hazardous decomposition products:
Carbon monoxide, carbon dioxide, nitrogen oxides, hydrogen chloride gas.

Hazardous polymerization:
Will not occur.

11. Toxicological Information

Signs and symptoms of exposure:
Nausea, headache, and vomiting. Gastrointestinal disturbances, dizziness, weakness, confusion, drowsiness, unconsciousness. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Ingestion can cause: Methyl alcohol may be fatal or cause blindness if swallowed. Cannot be made non-poisonous.

Route of exposure:
Skin Contact: May cause skin irritation.
Skin Absorption: Toxic if absorbed through skin.
Eye Contact: May cause eye irritation.
Inhalation: Material may be irritating to mucous membranes and upper respiratory tract. Toxic if inhaled.
Ingestion: Toxic if swallowed.

Target organ information:
Eyes, kidneys, liver, heart.

12. Ecological Information

n/a.

13. Disposal Considerations

Substance disposal:
Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations.
14. Transport Information

RID/ADR
Dangerous good in expected quantity
Expected quantities code: P2
UN#: 1230
Class: 3
PG: II
Subrisk: 6.1
Proper shipping name: Methanol solution

IMDG
Dangerous good in limited quantity
UN#: 1230
Class: 3
PG: II
Subrisk: 6.1
Proper shipping name: Methanol solution
Marine Pollutant: no
Severe Marine Pollutant: no

IATA
Dangerous good in expected quantity
UN#: 1230
Class: 3
PG: II
Subrisk: 6.1
Proper shipping name: Methanol solution
Inhalation Packing Group I: no

15. Regulatory Information

Classification and labeling according to EU directives

Indication of danger:

- ⚠️ Highly Flammable.
- 🆘 Toxic.

Highly flammable. Toxic by inhalation, in contact with skin, and if swallowed. Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

**S-Phrases: 36/37-45**

Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**Caution:**

Substance not yet fully tested (EU).

**Country specific information:**

Germany: WGK: 1
Self-Classification

**16. Additional Information**

**Disclaimer:**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**Pertinent R-phrases:**

R 11-23/24/25-39/23/24/25