

Material Safety Data Sheet



Trade name: HVG – CO₂ Hop Extract
Product Code: SCCO2
Version: 3.0 / EN

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HVG – CO₂ HOP EXTRACT

MATERIAL SAFETY DATA SHEET

(according to the EEC/ISO standards)

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1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY

- Name of the material or preparation:**
 - Product code: SCCO2
 - Customs tariff code: 1302 13 00
 - Product name / commercial name: HVG-CO2-Hop-Extract
- Details on manufacturer (partly owned by supplier):**
 - Name: Hopfenveredlung St. Johann GmbH
 - Address: Mainburger Str. 15, 93358 St. Johann (Germany)
 - Telephone: +49-9444/878 0
 - Telefax: +49-9444/878 178
 - e-mail: contact@hopfenveredlung.de
- Details on supplier:**
 - Name: HVG Hopfenverwertungsgenossenschaft e.G.
 - Address: Kellerstr. 1, 85283 Wolnzach (Germany)
 - Telephone: +49-8442/957-100
 - Telefax: +49-8442/957-169
 - e-mail: contact@hvg-germany.de
- Date of preparation of MSDS:** 1999-03-12
- Date of revision of MSDS:** 2021-03-16

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterisation

HVG-CO2 extract contains the natural non-polar substances of the flower of the hops plant (*humulus lupulus*) in their natural chemical unchanged form. HVG-CO2 hop extract is a mixture of the aromatic substances of the hops (hop oils) and the bittering resins (humulones and lupulones). According to the EBC (European brewery convention) Manual of good practice for Hops and Hop Products (ISBN3-418-00758-9) the process of gaining the extract out of the hops is the following:

“Hops pellets (grinded and pressed flowers) are filled into an extractor which is pressurised to working pressure. Liquid carbon dioxide is raised to extraction pressure and pumped through the extractor. As the carbon dioxide is passed through the pellets, bitter and aroma substances are dissolved. In the separation tank the pressure is decreased and carbon dioxide separates from the extract, which precipitates and is collected in the separator. This is a batch process.”

Typical characterisation of extracts

Description	Unit	Value
α -acids (resins)	Gew.-%	25 – 55
β – acids (resins)	Gew.-%	15 – 35
Essential oils	ml/ 100 g	Bis zu 10

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3. HAZARD IDENTIFICATION

No health hazards, non-toxic in normal use

4. FIRST AID MEASURES

General information:

In normal use no health hazards known. CO2 Hop Extract can generally be recommended as safe (GRAS) for their intended use in accordance with US FDA regulation, 21 CFR 182.20. In some cases, the product may be a mild irritant if it gets in contact with eyes, respiratory tract or mucous membranes.

- **Inhalation:**
Not applicable
- **Skin contact:**
May be slightly Irritating. Wash contacted area with warm soapy water. Wash contaminated clothing before re-use.
- **Eye contact:**
May be irritating. Wash affected eye with plenty of pure water. Seek medical attention if irritation persists.
- **Oral ingestion:**
It is an extremely bitter substance and may be Irritating to mouth, throat and stomach. Drink plenty of milk or water to dilute and fruit juice to neutralise bitterness. Vomiting Is possible but should not be Induced
- **Instructions for physician:**
Not applicable

5. FIRE FIGHTING MEASURES

- Packing: Cartons and wooden pallets are flammable. Extinguishing media foam, dry powder, water or CO2
- Product: No known unusual fire and explosion hazards

6. ACCIDENTAL RELEASE MEASURES

- Take up the extract with an absorbent material
- Place the used material in an appropriate waste disposal container for disposal according to local
- Finally, normal clean-up procedures with hot water and usual household cleaning agents

7. HANDLING AND STORAGE

- Handling: No special requirements
- Storage (durability): No special precautions necessary
- Storage class: 10 Combustible solids

Out of quality reasons extract should be used as soon as possible after opening the packaging.

Recommended storing conditions:

Temperature	Stability
At 10 – 15 °C (50 – 59 °F)	up to 5 years (in unopened, original packages)
At 0 – 5 °C (32 – 41 °F)	up to 10 years (in unopened, original packages)

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CO2 hop extract is a food ingredient and for such uses is not subject to registration via REACH (Regulation (EC) No.1907/2006).

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

- Additional information on construction of technical installations: not applicable
- Components important for workshop security (limits to be controlled): not applicable
- Personal protective equipment: Rubber gloves are advisable to avoid accidental contact; protective goggles are advisable to avoid accidental contact

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

- Form: viscous extract, waxy
- Color: green to green-yellowish
- Odour: typical hoppy, resinous

Safety data

- pH: slightly acid
- Change of state: melting at 40-60°C, depending on the variety
- Flash point: not applicable
- Flammability: not applicable
- Ignition temperature: not applicable
- Spontaneous ignition: not applicable
- Explosion limits:
 - min: not applicable
 - max: not applicable
- Vapor pressure: not applicable
- Density: 0.85 – 1.05 kg/l
- Solubility: soluble in nearly all organic solvents, water causes formation of an emulsion

10. STABILITY AND REACTIVITY

Hop constituents oxidise in contact with air, no hazardous reactivity known.

11. TOXICOLOGICAL INFORMATION

CO₂ Hops Extract used for beer brewing can generally be recommended as safe (GRAS) in accordance with US FDA 21 CFR 170.30(c) and 170.3(f).

12. ECOLOGICAL INFORMATION

The product is all natural and biodegradable

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations involved for organic non-hazardous product. Packaging material (wooden pallets, cartons, emptied tins and one-way barrels) to be recycled.

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14. TRANSPORT INFORMATION

Road transport:

- Warning board: not applicable
- GGVS/GGVE-classification: not applicable
- UN-No.: not applicable

Transport on inland waterways:

- Class/no/letter: not applicable

Marine transport:

- Class: not applicable

Air transport:

- Class: not applicable

Further information:

- None hazardous product, Comply with applicable state regulations

15. REGULATORY INFORMATION

Identification according to EU-regulations:

- Hazard identification: not applicable
- Product contains: not applicable
- R-phrases: not applicable
- S-phrases: not applicable
- Further information: not applicable

National federal regulations:

- Information on workshop limit: not applicable
- Regulation on hazardous incidents: not applicable
- Regulation on flammable liquids VbF: not applicable
- TA air: not applicable
- Water hazard classification: not applicable
- Further regulations on restrictions and prohibitions: not applicable

16. OTHER INFORMATION

The product is accompanied by the Phytosanitary certificate, which states that the product has been produced according to the national health regulations. The above information is based on the current state of knowledge of our product at the time of publication and is furnished without warranty of any kind. The user must satisfy himself that the product is entirely suitable for his purposes.