

BarthHaas®

CO2 Hop Extract

Safety Data Sheet

Hop Extract is not classified as a dangerous product according to European Union legislation, and its use is as a food product in the brewing of beer. However, this safety data sheet is provided voluntarily according (as appropriate) to the principles of the Classification, Labelling and Packaging Regulations (Regulation (EC) No. 1272/2008).

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

1.1 Product Identifier: CO₂ Hop Extract

1.2 Synonyms: Kettle Extract, Liquid CO₂ Extract, Supercritical CO₂ Extract, Pure Resin Extract, Standardized Extract, Oil Enriched Extract (aka ORE), Oil Reduced Extract

1.3 Relevant Uses: For use as an ingredient in brewing of beer.

1.4 Supplier: BarthHaas / BarthHaas UK Ltd.

1.5 Emergency
Hop Pocket Lane, Paddock Wood, Kent, TN12 6DQ, UK
Contact Details: Emergency phone: +44 1892 833 415 (09:00 - 17:30 Mon-
Thurs;
09:00 - 16:30 Fri, UK time)Email: enquiries@barthhaas.co.uk

BarthHaas / John I. Haas, Inc.
1600 River Rd., Yakima, WA 98902, USA.
Emergency phone: +1 509 469 4000 (office hours)
Email: info@johnihaas.com

Hopfenveredlung St. Johann GmbH
Address: Mainburger Str..15, 93358 Train, Germany
Emergency phone: +49 9444 8780 (office hours)
Email: contact@hopfenveredlung.de

2. HAZARDS IDENTIFICATION

2.1 Classification:	Not classified (Regulation (EC) No. 1272/2008) Not classified (Directive 67/548/EEC)
2.2 Label Elements:	N/A (not classified)
2.3 Other Hazards:	This product is an extract of hops for use as an ingredient for the brewing of beer. It has not been fully tested. Ingestion of a large dose may cause irritation of mouth, throat and digestive tract. The product may cause eye irritation and prolonged handling may cause dermatitis.

3. COMPONENTS/INFORMATION ON INGREDIENTS

The product is a mixture of bitter and aroma substances, extracted from the dried cones of the cultivated hop plant *Humulus lupulus*; many different hop varieties and extract standardizations/formulations exist; this SDS applies equally to all varieties. It is possible that extract contains the standardization agents glucose or hot water extract obtained from the initial hops.

Hop Extract, CAS: 8060-28-4
EINECS N°. 232-504-3

4. FIRST AID MEASURES

4.1 Description of First Aid Methods:	Inhalation: Move to fresh air Skin contact: Wash skin thoroughly with soap and water. Eye contact: Flood the eye with plenty of water. If any symptoms persist obtain medical attention. Oral ingestion: Drink large amounts of water to dilute. Vomiting may occur but should not be induced. Obtain medical attention if symptoms persist.
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4.2 Most important Symptoms and Effects	May cause irritation of eyes if in contact with eyes.
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4.3 Indications of Immediate Medical Attention or Special Treatment	None known.
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5. FIRE AID MEASURES

5.1 Extinguishing media:	Carbon dioxide, dry powder and foam
5.2 Special Hazards Arising from Substance	Contains hop oil. Hop oil is combustible and may give rise to hazardous fumes in a fire.
5.3 Advice for Firefighters:	Fire fighters should wear self-contained positive pressure breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Protection: Wear appropriate protective clothing – see Section 8.

6.2 Environmental Precautions: Do not discharge onto the ground or into watercourses.

6.3 Methods for Cleaning Up: Contain spillage using earth, sand or other inert material. Transfer to suitable sealed container prior to disposal. Flush area with hot soapy water to remove final traces. Use adequate ventilation or a respirator if in a confined area.

7. HANDLING AND STORAGE

7.1 Precautions for Safe Handling: Avoid excessive contact with product. Use appropriate protective clothing as indicated in Section 8. Wash hands after use.

7.2 Conditions for Safe Storage: Store at 0 – 5 °C (32 – 41 °F). Suitable storage is high grade stainless steel, glass, high-density polyethylene and high phenolic lacquered mild steel

7.3 Specific End Uses: The substance is manufactured for use as a food ingredient and for such uses is not subject to registration via REACH (Regulation (EC) No.1907/2006). It should be used in accordance with applicable food legislation

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters: Not applicable.

8.2 Exposure Controls

<u>Engineering Controls:</u>	Provide adequate ventilation.
<u>Eye/Face Protection:</u>	Chemical goggles must be worn during handling.
<u>Hand Protection:</u>	PVC, rubber, latex or nitrile gloves
<u>Skin Protection:</u>	If danger of splashing wear PVC or rubber apron.
<u>Respiratory Protection:</u>	Not normally required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Viscous liquid, yellow/orange to brown/green
Odour:	Characteristic, typical hoppy, resinous aroma
Odour Threshold:	No data available
pH:	No data available
Melting Point:	40 - 60 °C (104 - 140 °F), depending on variety
Boiling Point:	No data available
Flash Point:	No data available
Evaporation Rate:	No data available
Flammability:	No data available. Data for propylene glycol: LEL 2.6%, UEL 12.5%
Upper/Lower Flammability:	No data available
Vapour Pressure:	No data available
Vapour Density:	No data available
Density (kg/m³)	850 - 1110
Solubility in Water:	Insoluble; forms an emulsion
Partition Coefficient:	No data available
Auto-ignition Temperature:	No data available
Decomposition Temperature:	No data available
Viscosity:	approx. 1 - 3 Pas at 30 - 40 °C (86 - 104 °F), depending on variety
Explosive properties:	No data available
Oxidising properties:	No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity:	No reactivity hazards known
10.2 Chemical Stability:	Stable if stored in accordance with 7.2 and 10.5
10.3 Possibility of Hazardous Reactions:	None known
10.4 Conditions to Avoid:	Keep contain closed when not in use.
10.5 Incompatible Materials:	None known.
10.6 Hazardous Decomposition Products:	None known

11. TOXICOLOGICAL INFORMATION

11.1 Acute Toxicity:	No data available. Hops and hop extracts are generally recognized as safe (GRAS) for their intended use in accordance with US FDA regulation, 21 CFR 182.20. No TLVs established.
11.2 Skin Corrosion/ Irritation	No data available
11.3 Serious Eye Damage/ Irritation:	No data available
11.4 Respiratory or Skin Sensitisation:	No data available
11.5 Germ Cell Mutagenicity:	No data available
11.6 Carcinogenicity:	No data available
11.7 Reproductive Toxicity:	No data available
11.8 STOT-Single Exposure:	No data available
11.9 STOT-Repeated Exposure:	No data available
11.10 Aspiration Hazard:	No data available

12. ECOLOGICAL INFORMATION

12.1 Excotoxicity: No data available.

12.2 Mobility: No data available.

12.3 Persistence and Degradability: No data available.

12.4 Mobility in Soil: No data available.

12.5 Results of PBT Exposure: And vPvB Assessment: No data available

12.6 Other adverse effects: Exposure: No data available

13. DISPOSAL CONSIDERATIONS

Product disposal: Dispose in accordance with all applicable local and national regulations.

Container disposal: Labels should not be removed from containers until they have been cleaned. Contaminated containers should not be treated as household waste. Containers should be cleaned using appropriate methods and then re-used or disposed of by landfill or incineration as appropriate.

14. TRANSPORT INFORMATION

14.1 UN-Number: Non-hazardous for transport.

14.2 Shipping Name: N/A

14.3 Transport Hazard Class: Non-hazardous for transport.

14.4 Packing group Non-hazardous for transport.

14.5 Marine pollutant: No data available

15. REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations: No data available

15.2 Chemical Safety Assessment: No data available

16. OTHER INFORMATIONS

The information in this safety data sheet is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in this document is based on our present knowledge and should be used only as a supplement to information already in your possession concerning this product. It does not represent any guarantee of the properties of the product. The determination of whether and under what condition the product should be used is yours to make. We do not accept any liability for loss, injury or damage that may result from its use.