

Note

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 Preparation and of the Company

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| 1.1 Product Identifier: | CO₂ Hop Extract |
| Synonyms: | Kettle Extract, Liquid CO ₂ Extract, Supercritical CO ₂ Extract, Pure Resin Extract, Standardized Extract, Oil Enriched Extract (aka ORE), Oil Reduced Extract |
| 1.2 Relevant Uses | For use as an ingredient in the brewing of beer |
| 1.3 Supplier: | BarthHaas / BarthHaas UK |
| 1.4 Emergency Contact Details: | Hop Pocket Lane, Paddock Wood, Kent, TN12 6DQ, UK 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: +1 202 777 4800 (office hours) Email: info@johnihaas.com |
| | Hopfenveredlung St. Johann GmbH Address: Auenstr. 18-20, 85283 Wolnzach, Germany Emergency phone: +49 8442 660 (office hours) Email: contact@nateco2.de |

2. Hazards Identification

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| 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

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| 4.1 Description of First Aid Methods: | <p><u>Inhalation:</u> Move to fresh air.</p> <p><u>Skin Contact:</u> Wash skin thoroughly with soap and water. <u>Eye Contact:</u> Flood the eye with plenty of water. If any symptoms persist obtain medical attention.</p> <p><u>Oral Ingestion:</u> Drink large amounts of water to dilute. Vomiting may occur but should not be induced. Obtain medical attention if symptoms persist.</p> |
| 4.2 Most Important Symptoms and Effects: | May cause irritation of eyes if in contact with eyes. |
| 4.3 Indication of Immediate Medical Attention or Special Treatment: | None known. |

5. Fire-Fighting Measures

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| 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

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| 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 | |
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| 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 |
| Upper/Lower Flammability: | No data available |
| Vapour Pressure: | No data available |
| Vapour Density: | No data available |
| Density: | 850 - 1100 kg.m ⁻³ |
| Solubility in Water: | Insoluble; forms an emulsion |
| Partition Coefficient: | No data available |
| Autoignition 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 | |
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| 10.1 Reactivity: | No reactivity hazards known |
| 10.2 Chemical Stability: | Stable if stored in accordance with 7.2 |
| 10.3 Possibility of Hazardous Reactions: | None known |
| 10.4 Conditions to Avoid: | Keep container 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 Toxicity: | No data available |
| 12.2 Persistence and Degradability: | No data available |
| 12.3 Bioaccumulative Potential | No data available |
| 12.4 Mobility in Soil: | No data available |
| 12.5 Results of PBT and vPvB Assessment: | No data available |
| 12.6 Other Adverse Effects: | No data available |
| 13. Disposal Considerations | |

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| 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 | |
| UN-Number: | Non-hazardous for transport |
| Class: | Non-hazardous for transport |
| Shipping name: | N/A |
| Packing group: | Non-hazardous for transport |
| 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 Information | |
| <p>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.</p> | |