



Note

Hop Oil Emulsions are not classified as dangerous products according to European Union legislation, and their use is as a flavouring preparation, for example 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

1.1 Product Identifier:	Hop Oil Emulsion
Other Names:	CO ₂ Hop Oil Emulsion, MD Hop Oil Emulsion, Botanix Hop Oil Emulsion – this MSDS is suitable for all of the named products
1.2 Relevant Uses	This product is manufactured for use as a flavouring preparation for foods and beverages. Not for direct consumption as an undiluted product.
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

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:	None

3. Components/Information on Ingredients

Component	Concentration	CAS no.	FEMA no.	Hazard classification of the individual component
Hop oil	0.1% - 1% v/v	8007-04-3	2580	Regulation (EC) No 1272/2008: Aspiration Toxicity (Category 1). Dangerous Substances Directive (67/548/EEC): Harmful: may cause lung damage if swallowed. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Permitted emulsifiers	<0.5% w/v	Non-hazardous: included for information only		
Water	Balance	Non-hazardous: included for information only		

4. First Aid Measures	
4.1 Description of First Aid Methods:	<p><u>Inhalation:</u> Move the exposed person to fresh air. Obtain medical attention if discomfort persists.</p> <p><u>Skin Contact:</u> Wash skin thoroughly with soap and water.</p> <p><u>Eye Contact:</u> Wash eye with plenty of water. Obtain medical attention.</p> <p><u>Oral Ingestion:</u> Rinse mouth with water provided person is conscious. Do not induce vomiting. Obtain medical attention.</p>
4.2 Most Important Symptoms and Effects:	<p><u>Inhalation:</u> Low risk due to high aqueous content.</p> <p><u>Skin contact:</u> Prolonged contact may cause dermatitis.</p> <p><u>Eye contact:</u> May cause irritation.</p> <p><u>Oral Ingestion:</u> A large dose may cause irritation of mouth, throat and digestive tract.</p>
4.3 Indication of Immediate Medical Attention or Special Treatment:	N/A
5. Fire-Fighting Measures	
5.1 Extinguishing media:	Dry powder, foam or carbon dioxide.
5.2 Special Hazards Arising from Substance:	Hop oil may give rise to hazardous fumes in a fire. However, the product is an aqueous emulsion and is therefore not expected to burn. No known unusual fire or explosion hazards.
5.3 Advice for Firefighters:	Wear self contained 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. Advise authorities if such spillage does occur.
6.3 Methods for Cleaning Up:	Contain spillage using earth, sand or other inert material. Transfer to suitable sealed container prior to disposal.
7. Handling and Storage	
7.1 Precautions for Safe Handling:	Use only in well ventilated areas. Avoid inhalation of vapours, spilling, skin and eye contact.
7.2 Conditions for Safe Storage:	Unopened containers can be stored for up to 6 months at 3 - 6 °C prior to use. Avoid storage of partly used containers since sterility may be compromised.
7.3 Specific End Uses:	The substance is manufactured for use as a food ingredient and for such uses it 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:	<p><u>Engineering Controls:</u> Provide adequate ventilation. Minimize the risk of inhalation of vapours.</p> <p><u>Eye/Face Protection:</u> If danger of splashing wear chemical goggles.</p> <p><u>Hand Protection:</u> PVC or rubber gloves.</p> <p><u>Skin Protection:</u> If danger of splashing wear PVC or rubber apron.</p> <p><u>Respiratory Protection:</u> Not normally required.</p>
9. Physical and Chemical Properties	
Appearance:	Mobile liquid, white to yellow
Odour:	Characteristic of hops
Odour Threshold:	No data available
pH:	No data available
Freezing Point:	No data available
Boiling Point:	No data available
Flash Point:	Not applicable due to high water content
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:	1,000 kg.m ⁻³
Solubility in Water:	Soluble
Partition Coefficient:	No data available
Autoignition Temperature:	No data available
Decomposition Temperature:	No data available
Viscosity at 20 °C:	No data available
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:	Product needs cold storage at 3 – 6 °C. Avoid storage of partly used containers as sterility may be compromised – see Section 7.2.
10.5 Incompatible Materials:	None known
10.6 Hazardous Decomposition Products:	None known
11. Toxicological Information	
11.1 Acute Toxicity:	No data available. Due to the concentration and nature of the ingredients, the product is not classified as hazardous.
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:	Hop oil is present at $\geq 1\%$ in an aqueous emulsion and thus the product does not present an aspiration hazard, and it is not classified as hazardous.

12. Ecological Information	
12.1 Toxicity:	No data available. Due to the concentration and nature of the ingredients, the product is not classified as hazardous.
12.2 Persistence and Degradability:	Hop oil is extracted from hops (<i>Humulus lupulus</i>) and is a natural product - considered biodegradable.
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	
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:	Not classified (Regulation (EC) No. 1272/2008) Not classified (Directive 67/548/EEC) The substance is a food ingredient and is therefore not subject to registration via REACH (Regulation (EC) No. 1907/2006).
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>	