

# Isomerized Kettle Extract (IKE)

## Safety Data Sheet

### Note

Isomerized Kettle 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

1.1 Product Identifier:	<b>Isomerized Kettle Extract</b>
Synonyms:	IKE Pre-isomerized CO <sub>2</sub> Extract Isomerized Resin Extract (IRE)
1.2 Relevant Uses	For use as an ingredient in beer.
1.3 Supplier: 1.4 Emergency Contact Details:	<b>BARTH-HAAS Group / BARTH-HAAS UK</b> 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: <a href="mailto:enquiries@barthhaas.co.uk">enquiries@barthhaas.co.uk</a>  <b>BARTH-HAAS Group / John I. Haas, Inc.</b> 5185 MacArthur Boulevard, N.W., Suite 300, Washington DC, 20016 USA. Emergency phone: +1 202 777 4800 (office hours) Email: <a href="mailto:info@johnihaas.com">info@johnihaas.com</a>  <b>Hopfenveredlung St. Johann GmbH</b> Address: Auenstr. 18-20, 85283 Wolnzach, Germany Emergency phone: +49 8442 660 (office hours) Email: <a href="mailto:contact@nateco2.de">contact@nateco2.de</a>

### 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 ingredient for beer, and is bitter. 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 isomerized hop bitter acids (viz. iso-alpha acids or isohumulones), hop resins and essential oils. The isomerized bitter acid content varies according to the original hop variety extracted, but typically the range will be 40-60% iso-alpha acids. The CAS no. for iso-alpha-acid/isohumulone is 25522-96-7 and the EINECS no. is 247-072-1).

### 4. First Aid Measures

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.</p> <p><u>Eye Contact:</u> Flood the eye with plenty of water. If any symptoms persist obtain medical attention.</p> <p><u>Oral Ingestion:</u> The product is very bitter and it is very unlikely that anyone would ingest large amounts. Should this happen 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

5.1 Extinguishing media:	Carbon dioxide, dry powder and foam.
5.2 Special Hazards Arising from Substance:	Contains small amounts of 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 15 – 25 °C (59 – 77 °F). Keep container closed when not in use. Use opened containers as soon as possible. Suitable storage is in 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:	<p><u>Engineering Controls:</u> Provide adequate ventilation.</p> <p><u>Eye/Face Protection:</u> Chemical goggles must be worn during handling.</p> <p><u>Hand Protection:</u> PVC, rubber, latex or nitrile 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:	Viscous liquid, yellow/orange to brown/green
Odour:	Characteristic, resinous aroma
Odour Threshold:	No data available
pH:	No data available
Freezing Point:	No data available
Boiling Point:	>100 °C
Flash Point:	>60 °C
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 – 1000 kg.m <sup>-3</sup>
Solubility in Water:	Insoluble; forms an emulsion
Partition Coefficient:	No data available
Autoignition Temperature:	No data available
Decomposition Temperature:	No data available
Viscosity:	Approx. 0.1 - 3 Pas at 30 – 40 °C, depending on varieties
Explosive properties:	No data available
Oxidising properties:	No data available

<b>10. Stability and Reactivity</b>	
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
<b>11. Toxicological Information</b>	
11.1 Acute Toxicity:	No data available
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
<b>12. Ecological Information</b>	
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

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

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.