

# Isomerized Hop Pellets

## Safety Data Sheet

### Note

Isomerized hop pellets are not classified as a dangerous product according to European Union legislation, and their 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 Hop Pellets</b>
Synonyms:	Pre-isomerized Hop Pellets, Iso-pellets, Isopellets
1.2 Relevant Uses	For use as an ingredient in the brewing of beer
1.3 Supplier:	<b>Barth-Haas Group / Botanix Ltd.</b>
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: <a href="mailto:inray@botanix.co.uk">inray@botanix.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 &amp; Co. KG</b> Mainburger Str. 15, 93558 St. Johann, Germany Emergency phone: +49 9444 878 0 E-mail: <a href="mailto:contact@hopfenveredlung.de">contact@hopfenveredlung.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 a pelleted form of pre-isomerized hops for use as an ingredient for the brewing of beer – see Section 3. It has not been fully tested. Associated dust may be irritating to mouth, throat and eyes.

### 3. Components/Information on Ingredients

Product consists entirely of hop cones of the cultivated hop plant *Humulus lupulus* pelleted in presence of small amounts of magnesium oxide (amount dependent on variety). Isomerized pellets are available from many varieties of hops.

<b>4. First Aid Measures</b>	
4.1 Description of First Aid Methods:	<p><u>Inhalation:</u> Move to fresh air. If symptoms persist obtain medical attention.</p> <p><u>Skin Contact:</u> Wash skin thoroughly with soap and water. Launder contaminated clothing before re-use.</p> <p><u>Eye Contact:</u> Immediately 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:	None known.
4.3 Indication of Immediate Medical Attention or Special Treatment:	None known.
<b>5. Fire-Fighting Measures</b>	
5.1 Extinguishing media:	Carbon dioxide, dry powder and foam. Great care should be taken using a water jet/spray.
5.2 Special Hazards Arising from Substance:	None known.
5.3 Advice for Firefighters:	Fire fighters should wear self-contained positive pressure breathing apparatus.
<b>6. Accidental Release Measures</b>	
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:	Normal clean-up procedures as for any agricultural commodity.
<b>7. Handling and Storage</b>	
7.1 Precautions for Safe Handling:	Avoid generating excessive dust. 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 - 8 °C (32 - 46 °F). Suitable storage containers are thick gauge laminated foil bags, stainless steel and lacquered mild steel. To guarantee quality avoid heat, moisture, strong odors during storage.
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.

<b>8. Exposure Controls / Personal Protection</b>	
8.1 Control Parameters:	Not applicable.
8.2 Exposure Controls:	<u>Engineering Controls:</u> Provide adequate ventilation. <u>Eye/Face Protection:</u> If in danger of generating dust, wear a facemask. <u>Hand Protection:</u> Not required <u>Skin Protection:</u> Not required <u>Respiratory Protection:</u> If in danger of generating dust, wear a facemask.
<b>9. Physical and Chemical Properties</b>	
Appearance:	Solid pellets; various shades of green
Odour:	Characteristic, pungent, depends on variety
Odour Threshold:	No data available
pH:	No data available
Melting Point:	No data available
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:	450 – 700 kg.m <sup>-3</sup>
Solubility in Water:	Insoluble
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

<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:	See Section 7.2
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. 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
<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

<b>13. Disposal Considerations</b>	
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.
<b>14. Transport Information</b>	
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
<b>15. Regulatory Information</b>	
15.1 Safety, Health and Environmental Regulations:	No data available
15.2 Chemical Safety Assessment:	No data available
<b>16. Other Information</b>	
<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> <p>Date of issue: 13 January 2014</p>	