

## Note

Hop Pellets are not classified as dangerous products 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>Lupulin Enriched Hop Pellets (Type 45 Pellets)</b>
Synonyms:	PEL/PE 45, Kettle Pellets, Hop Pellets
1.2 Relevant Uses	For use as an ingredient in the brewing of beer
1.3 Supplier:	<b>BarthHaas / John I. Haas, Inc.</b>
1.4 Emergency Contact Details:	1600 River Rd., Yakima, WA 98902, 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> Mainburger Str. 15, 93358 St. Johann, Germany Emergency phone: +49 9444 878 0 (office hours) Email: <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:	Associated dust may be irritating to eyes, mouth and throat.

## 3. Components/Information on Ingredients

The product consists entirely of pelleted hop cones of the cultivated hop plant *Humulus lupulus* that have been enriched by physical means. Many different varieties and degrees of enrichment.

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>: Brush off excess material and 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>: 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. See Section 2.3.
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. Keep containers and surroundings cool with water spray. Great care should be taken using water/jet spray.
5.2 Special Hazards Arising from Substance:	Not known.
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:	Normal clean-up procedures as for any agricultural commodity.
7. Handling and Storage	
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:	To guarantee quality avoid heat, moisture and strong odours during storage. Pellets should not be exposed to temperatures above 20 °C (68 °F) since it is possible that gases are formed from hop constituents. The resulting pressure increase may cause bursting of the foils. Consequently the pellets will be exposed to air and oxidation resulting in a considerable deterioration of quality. Suitable storage containers are thick gauge laminated foil bags, stainless steel and 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> If in danger of generating dust, wear goggles. <u>Hand Protection:</u> Gloves possible (not mandatory) <u>Skin Protection:</u> Gloves possible (not mandatory) <u>Respiratory Protection:</u> If in danger of generating dust, wear a facemask.
<b>9. Physical and Chemical Properties</b>	
Appearance:	Pelleted powder; various shades of green
Odour:	Characteristic, typical hoppy, 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 170.30(c) and 170.3(f). Supported by a long history of safe use in brewing.
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. All-natural product.
12.3 Bioaccumulative Potential	No data available. All-natural product, not expected to bioaccumulate.
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.

#### 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.