

Isopellets

Safety Data Sheet

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 SUBSTANCE AND OF THE COMPANY

1.1 Product Identifier	Isomerized Hop Pellets
1.2 Synonyms	Pre-Isomerized hop Pellets, Iso-pellets, Isopellets
1.3 Relevant Uses	For use as an ingredient in brewing of beer.
1.4 Supplier	BarthHaas / BarthHaas UK Ltd.
1.5 Emergency Contact Details	BarthHaas UK Ltd. 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: +1 509 469 4000 (office hours) Email: info@johnihaas.com Hopfenveredlung St. Johann GmbH Mainburger Str. 15, 93358 St. Johann, Germany Emergency phone: +49 9444 878 0 (office hours) Email: contact@hopfenveredlung.de



2. HAZARD 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.

4. FIRST AID MEASURES

4.1 Description of First

Aid Methods:

- **Inhalation**
 - **Skin Contact**
 - **Eye Contact**
 - **Oral Ingestion**
- Move to fresh air. If symptoms persist obtain medical attention.
 - Wash skin thoroughly with soap and water. Launder contaminated clothing before re-use.
 - Immediately flood the eye with plenty of water. If any symptoms persist obtain medical attention.
 - Drink large amounts of water to dilute. Vomiting may occur but should not be induced. Obtain medical attention if symptoms persist.
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4.2 Most important symptoms and Effects

None known

4.3 Indications of Immediate Medical

None known



5 FIRE AID MEASURES

- 5.1 Extinguishing Media** Carbon dioxide, dry powder, foam. Keep container 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 large amounts 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 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 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 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:

- **Engineering Controls**
 - Provide adequate ventilation
 - If in danger of generating dust, wear facemask
- **Eye/Face Protection**
 - Not required
- **Hand Protection**
 - Not required.
- **Skin Protection**
 - If in danger of generating dust, wear a facemask
- **Respiratory Protection**

9. PHYSICAL AND CHEMICAL PROPERTIES

- a) **Physical state** Solid pellets
- b) **Color** Various shades of green
- c) **Odor** Characteristic, typical hoppy, depends on variety
- d) **Melting point/Freezing point** Not practical to measure
- e) **Boiling point** Not practical to measure
- f) **Flammability** Not practical to measure
- g) **Lower and upper explosion limit** Not practical to measure
- h) **Flash point** Not practical to measure
- i) **Auto-ignition temperature** Not practical to measure
- j) **Decomposition temperature** Not practical to measure



k) pH	Not practical to measure
l) Kinematic viscosity	Not practical to measure
m) Solubility	Insoluble
n) Partition coefficient n-octanol/water (log value)	Not practical to measure
o) Vapor pressure	Not practical to measure
p) Density [kg/m³]	450- 700
q) Relative vapor density	Not practical to measure
r) Particle characteristics	Not practical to measure

10. STABILITY AND REACTIVITY

10.1 Reactivity	No reactivity hazards known.
10.2 Chemical Stability	Stable if stored according to Section 7.2
10.3 Possibility of Hazardous Reaction	None known
10.4 Conditions to Avoid	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. Hops and hop extracts are generally recognized as safe (GRAS) for 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 Sensitization	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 Ecotoxicity 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 Exposure: No data available

12.6 Other Adverse Effects Exposure No data available

13. DISPOSAL CONSIDERATIONS

13.1 Product Disposal Dispose in accordance with all applicable local and national regulations.

13.2 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

14.1 UN-Number Non-hazardous for transport

14.2 Shipping Name N/A

14.3 Transport Hazard Class Non-hazardous for transport

14.4 Packing Group Non-hazardous for transport

14.5 Marine pollutant Not data available

15. REGULATORY INFORMATION

15.1 Safety, Health, and Environmental Regulations Not data available

15.2 Chemical Safety Assessments Not 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.