Hop Pellets

Safety Data Sheet

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 Substance and of the Company

1.1 Product Identifier

Hop Pellets
Synonyms: **Type 90 Pellets, Type 45 Pellets, PEL/PE 90, PEL/PE 45, Kettle Pellets, Hop Pellets,Organic Hop Pellets**

1.2 Relevant Uses

For use as an ingredient in the brewing of beer

1.3 Details of the Supplier of the Safety Data Sheet

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)
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Hop Products Australia
26 Cambridge Road, Bellerive, Tasmania, Australia 7018.
Emergency phone: +61 3 6282 2000 (office hours)
Email: info@hops.com.au

1.4 Emergency Telephone Numbers

See Section 1.3 above

2. Hazard Identification

2.1 Classification Not classified (Regulation (EC) No. 1272/2008)
Not classified (Directive 67/548/EEC)1

2.2 Label Elements N/A (not classified)

2.3 Other Hazards Associated dust may be irritating to eyes, mouth and throat. May form explosible dust-air mixture if the associated dust is dispersed. Not PBT/vPvB; not an endocrine disruptor.

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:

- **Inhalation** - Move to fresh air.
- **Skin Contact** - Brush off excess material and wash skin thoroughly with soap and water.
- **Eye Contact** - Flood the eye with plenty of water. If any symptoms persist obtain medical attention.
- **Oral Ingestion** - Drink large amounts of water to dilute. Vomiting may occur but should not be induced. Obtain medical attention if symptoms persist.

4.2 Most important symptoms and Effects None known. See Section 2.3.

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.
The formation of dust by high pressure water jet, should be avoided.

5.2 Special Hazards Arising from Substance May form explosible dust-air mixture if the associated dust is dispersed.

5.3 Advice for Firefighters May form explosible dust-air mixture if the associated dust is dispersed. 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.
Ensure adequate ventilation and control of dust to avoid forming a dust-air mixture.

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. Ensure adequate ventilation and control of dust to avoid forming a dust-air mixture.

7. Handling and Storage

7.1 Precautions for Safe Handling Avoid generating excessive dust. May form explosible dust-air mixture if the associated dust is dispersed. 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. Esposure Controls/Personal Protection

8.1 Control Parameters Not applicable.

8.2 Exposure Controls:

- **Engineering Controls** - Provide adequate ventilation.
- **Eye/Face Protection** - If in danger of generating dust, wear goggles.
- **Hand Protection** - Gloves possible (not mandatory)
- **Skin Protection** - Gloves possible (not mandatory)
- **Respiratory Protection** - If in danger of generating dust, wear a facemask.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties	
a) Physical state	Pelleted powder
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
9.2 Other information	The product (hop pellets) is not explosive, but may form explosible dust-air mixture if the associated dust is dispersed. Information from Institut für Arbeitsschutz der Deutschen Gesetzlichen Unfallversicherung https://staubex.ifa.dguv.de/explokomp.aspx?nr=2208&lang=d (retrieved 18 October 2024): Hop pellets: Grain size: <500 µm [weight-%] 6 Median value [µm]: 2500 Max. explosion overpressure [bar]: n.d. Explosion capability: no Ignition temperature G-G [°C]: 450 Glowing temperature [°C]: 300

10. Stability and Reactivity

10.1 Reactivity	No reactivity hazards known.
10.2 Chemical Stability	Stable if stored according to Section 7.2 and 10.5
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 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	Associated dust may be irritating
11.4 Respiratory or Skin Sensitization	Associated dust may be irritating
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. All- natural product.
12.3 Bioaccumulative Potential	No data available. All-natural product, not excepted to be bioaccumulate.
12.4 Mobility in Soil	No data available
12.5 Results of PBT Exposure:	No data available
12.6 Endocrine Disrupting Properties	No data available. Not been assessed as an endocrine disruptor.
12.7 Other Adverse Effects	N/A

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	No data available

15. Regulatory Information

15.1 Safety, Health, and Environmental Regulations	No data available
15.2 Chemical Safety Assessments	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.