

CERTIFICATE OF ANALYSIS

PE01336 VARIETY CROP YEAR:

VARIETY CROP YEAR:

2023

Description

Hop Pellets are produced from raw hops and can be added to the kettle to provide bitterness and a hop character that is indistinguishable from that achieved using raw hops. Hop Pellets provide improved homogeneity, better storage stability and reduced storage/transport costs compared to raw hops.

Storage

Hop Pellets should be stored cool at 0-5 °C (32 - 41 °F). Pellets are best used within 3 years after processing. If stored at -20 °C (-4 °F), pellets should be used within 5 years. Foils, once opened, use within a few days.

Chemical Analysis

| <u>Characteristic</u> | Analysis Result | <u>Method</u> |
|-----------------------|-----------------|---------------|
| Alpha Acids | 13.6 % | ASBC Hops-6A |
| Beta Acids | 3.7 % | ASBC Hops-6A |
| HSI | 0.323 | ASBC Hops-12 |
| Oil Content | 2.2 ml/100g | ASBC Hops-13 |
| Moisture | 7.2 % | ASBC Hops-4 |
| Beta-pinene | < 1 % | ASBC Hops-17 |
| Caryophyllene | 6.2 % | ASBC Hops-17 |
| Citronellol | < 1 % | ASBC Hops-17 |
| Farnesene | < 1 % | ASBC Hops-17 |
| Geraniol | < 1 % | ASBC Hops-17 |
| Humulene | 8.5 % | ASBC Hops-17 |
| Limonene | < 1 % | ASBC Hops-17 |
| Linalool | < 1 % | ASBC Hops-17 |
| Myrcene | 40.1 % | ASBC Hops-17 |
| Nerol | < 1 % | ASBC Hops-17 |

Pesticide residues are monitored in hop products under our new BarthHaas Quality Control Guarantee. For more information on this program, please visit our website at, www.BarthHaas.com.

Released By: Signature: Date:

Hannah Eyerly, Senior Lab Technician January 10, 2024

Additional Information:

 SQ000017469
 Grower lots:

 Production date: 14-Dec 2023
 23-WA426-020

Best by date: 14-Dec 2026



Manufactured by John I. Haas, Inc., a member of the BarthHaas Group. 1600 River Rd., Yakima, WA 98902 Telephone: (509) 469-4000