



YAKIMA CHIEF - HOPUNION LLC

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Yakima, WA 98902
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hops@ychops.com
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V.A.T // BE 0469.147.032

Certificate of Analysis

SUPPLIER: YAKIMA CHIEF - HOPUNION, LLC.
203 Division Street
Yakima, WA 98902
Tel: +1.509.453.47.92
Fax: +1.509.453.15.51

PRODUCT NAME: Type 90 Hop Pellets

LOT NUMBER: P91-YKUCEN0094
PRODUCT CODE: P90-F004x05K11P, PEL-T90-FLN24-01
VARIETY: Centennial

<u>CHARACTERISTIC</u>	<u>TYPICAL ANALYSIS</u>	<u>ACTUAL ANALYSIS</u>
ALPHA ACIDS:	2.5 - 17.5% (w/w) LCV by EBC Analytica V 7.5	9.4 %
OIL BY DISTILLATION:	Varies by Variety ASBC Hops - 13 (% v/w)	1.4 %
OIL PROFILE BY GC, EBC Analytica V 7.12:	B-Pinene: 0.5 % Myrcene: 35.9 % Linalool: 0.6 % Caryophyllene: 7.4 %	Farnesene: 0.1 % Humulene: 16.8 % Geraniol: 1.4 %
LEAD:	< 1.0 ppm	passes test
ARSENIC:	< 0.5 ppm	passes test
CADMIUM:	< 0.03 ppm	passes test
TOTAL HEAVY METALS:	< 10 ppm (as Pb)	passes test

Missy Raver
Quality Control Manager

This product was manufactured in a plant whose quality/environmental system is registered as being in conformity with ISO 9001:2008 and ISO 14001:2004.

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YAKIMA CHIEF, Inc.



555 WEST SOUTH HILL ROAD • POST OFFICE BOX 209 • SUNNYSIDE, WA 98944 • PHONE (509) 839-9022 • FAX (509) 839-5570
V.A.T. BE 0469.147.032

Certificate of Analysis

SUPPLIER: YAKIMA CHIEF, INC.
555 West South Hill Road
P.O. Box 209
Sunnyside, WA 98944
Tel: +1.509.839.90.22
Fax: +1.509.839.55.70

PRODUCT NAME: YC-Type 90 Hop Pellets

LOT NUMBER: P91-XICEN011
PRODUCT CODE: P90-4X5F-05K, 40-100-0299
VARIETY: Centennial

<u>CHARACTERISTIC</u>	<u>TYPICAL ANALYSIS</u>	<u>ACTUAL ANALYSIS</u>
ALPHA ACIDS:	2.5 - 17.5% (w/w) LCV by EBC Analytica V 7.5	8.5 %
OIL BY DISTILLATION:	Varies by Variety ASBC Hops - 13 (% v/w)	1.8 %
OIL PROFILE BY GC, EBC Analytica V 7.12:	B-Pinene: 1.0 % Myrcene: 61.5 % Linalool: 0.6 % Caryophyllene: 5.5 %	Farnesene: 0.0 % Humulene: 10.9 % Geraniol: 1.3 %
LEAD:	< 1.0 ppm	passes test
ARSENIC:	< 0.5 ppm	passes test
CADMIUM:	< 0.03 ppm	passes test
TOTAL HEAVY METALS:	< 10 ppm (as Pb)	passes test


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