



YAKIMA CHIEF HOPS, Inc.

Certificate of Analysis

Supplier: Yakima Chief Hops
306 Division Street
Yakima, WA 98902

Date of Issue: 18-Nov-2025

Product Name: Type 90 Hop Pellets

Lot Number: P91-KUSAB0167
Variety: Sabro® Brand, HBC 438
Crop Year: 2025
Production Date: October 2025
Best Use Before: October 2028

<u>Characteristic</u>	<u>Typical Analysis</u>	<u>Actual Analysis</u>
Alpha Acids:	2.5 - 17.5% (w/w) UV Spectro by ASBC HOPS - 6A	15.73
Beta Acids:	3.0 - 9.0% (w/w) UV Spectro by ASBC HOPS - 6A	6.0%
Hop Storage Index:	Varies by Variety and Time from Harvest Hop Storage Index by ASBC Hops - 12	0.276
Oil by Distillation:	Varies by Variety ASBC Hops - 13 (%v/w)	2.4%
Oil Profile by GC, EBC Analytica V 7.12:	B-Pinene: 0.8 % Myrcene: 56.5 % Linalool: 0.5 % Caryophyllene: 13.5 %	Farnesene: 0.7 % Humulene: 8.8 % 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 (asPb)	passes test

Elvira Romero
Director, Global Quality Systems