

# Certificate of Analysis

**Product Name:** Type 90 Hop Pellets  
**Lot Number:** P91-ZLUCLU0231  
**Variety:** Cluster  
**Crop Year:** 2016  
**Production Date:** December 2016  
**Best Use Before Date:** December 2019

<u>Characteristic</u>	<u>Typical Analysis</u>	<u>Actual Analysis</u>
<b>Alpha Acids:</b>	2.5 - 17.5% (w/w) LCV by EBC Analytica V 7.5	6.8%
<b>Oil by Distillation:</b>	Varies by Variety ASBC Hops - 13 (%v/w)	0.6%
<b>Oil Profile by GC, EBC Analytica V 7.12:</b>	<b>B-Pinene:</b> 0.6 % <b>Myrcene:</b> 44.5 % <b>Linalool:</b> 0.3 % <b>Caryophyllene:</b> 7.7 %	<b>Farnesene:</b> 0.2 % <b>Humulene:</b> 18.4 % <b>Geraniol:</b> 0.5 %

<b>Lead:</b>	< 1.0 ppm	passes test
<b>Arsenic:</b>	< 0.5 ppm	passes test
<b>Cadmium:</b>	< 0.03 ppm	passes test
<b>Total Heavy Metals:</b>	< 10 ppm (asPb)	passes test

**Selected Brewing Ingredients BV**  
Kraaiendonk 44  
5428NZ Venhorst  
Nederland