

Munich Helles (20230330) - 4.7%

Munich Helles

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Type: All Grain

IBU : 18 (Tinseth)
 BU/GU : 0.37
 Colour : 8 EBC
 Carbonation : 2.5 CO2-vol

Pre-Boil Gravity : 1.035
 Original Gravity : 1.048
 Final Gravity : 1.012

Fermentables (1.21 kg)

1.085 kg - Chateau Pilsen 2-Row 3.5 EBC (89.9%)
 ^ Lot # 20220915
 ^ Brouwmaatje (NL) BM-BL.051.002.4
 103 g - Chateau Munich Light 13 EBC (8.5%)
 ^ Brouwmaatje (NL) BM-BL.051.614.1/1
 19 g - Acid Malt 5.9 EBC (1.6%)

Hops (14 g)

60 min - 8.4 g - Hallertauer Mittelfrueh - 3....
 10 min - 5.6 g - Hallertauer Mittelfrueh - 3....

Miscellaneous

Mash - 0.04 g - Baking Soda (NaHCO3)
 ^ Lot # 41190621/3
 ^ Brouwstore (NL) 003.106.2
 Mash - 0.82 g - Calcium Chloride (CaCl2) 33 %...
 ^ Lot # 115038
 ^ Brouwstore (NL) 055.035.0
 Mash - 0.81 g - Canning Salt (NaCl)
 ^ Albert Heijn (NL)
 Mash - 0.21 g - Epsom Salt (MgSO4)
 ^ Lot # /2119000091
 ^ Brouwstore (NL) 055.027.7
 Mash - 0.21 g - Gypsum (CaSO4)
 ^ The Malt Miller (UK) CHE-03-004
 Mash - 0.5 ml - Lactic Acid 80% 80%
 ^ Lot # 20200213
 ^ Brouwstore (NL) 003.002.3

Yeast

0.4 pkg - Wyeast Labs Munich Lager 2308

01 Brouwpunt 5L (75min) (rev 4)

Batch Size : 5.6 L
 Boil Size : 8.21 L
 Post-Boil Vol : 5.96 L

Mash Water : 3.62 L
 Sparge Water : 5.87 L
 Boil Time : 75 min
 Total Water : 9.49 L



8 EBC

Brewhouse Efficiency: 71.8%
 Mash Efficiency: 73.3%

Mash Profile

01 One Step Mash (60 min)
 71 °C - Strike Temp
 65 °C - 60 min - Temperature

Fermentation Profile

01 Ale + DR + Conditioning
 18 °C - 10 days - Primary
 21 °C - 4 days - Diacetyl rest
 18 °C - 14 days - Carbonation
 18 °C - 28 days - Conditioning

Water Profile

02 NL Spa Reine Flat Mineral Water (www.ah.nl...
 Ca 20 Mg 4 Na 38 Cl 75 SO 25

SO/Cl ratio: 0.3
 Mash pH: 5.38
 Sparge pH: 6

Measurements

Mash pH:

Boil Volume:

Pre-Boil Gravity:

Post-Boil Kettle Volume:

Original Gravity:

Fermenter Top-Up:

Fermenter Volume:

Final Gravity:

Bottling Volume:

Recipe Notes

Target: ABV = 5 %, IBU = 20, OG = 1.048, FG = 1.009.