

# AnOtter Munich Helles Lager - 5.4%

**Munich Helles**  
Author: The Thirsty Otter  
  
Type: All Grain

IBU : 19 (Tinseth)  
BU/GU : 0.4  
Colour : 7 EBC  
Carbonation : 2.5 CO2-vol

Pre-Boil Gravity : 1.040  
Original Gravity : 1.046  
Total Gravity : 1.048  
Final Gravity : 1.007

**Fermentables (1.13 kg)**  
1 kg - Premium Pilsner Extra Pale Malt 2.5 EB...  
^ Brouwmaatje (NL) 051.249.1  
50 g - Carapils 4 EBC (4.4%)  
^ Brouwmaatje (NL) BM-BL.051.307.7/1  
50 g - Swaen Vienna 12 EBC (4.4%)  
^ Brouwmaatje (NL) BM-SWAEN@VIENNA  
25 g - Melanoidin Malt 70 EBC (2.2%)  
^ The Malt Miller (UK) MAL-00-025  
32 g - Bottling - Sugar, Table (Sucrose) 2 EBC  
^ Albert Heijn (NL)

**Hops (22 g)**  
30 min - 12 g - Saaz - 3.6% (16 IBU)  
^ Lot # T9020044SAA  
^ Brouwmaatje (NL) BM-HUM.420000 Humlegarden...  
5 min - 10 g - Saaz - 3.6% (3 IBU)  
^ Lot # T9020044SAA  
^ Brouwmaatje (NL) BM-HUM.420000 Humlegarden...

**Miscellaneous**  
Mash - 0.03 g - Baking Soda (NaHCO3)  
^ Lot # 41190621/3  
^ Brouwstore (NL) 003.106.2  
Mash - 0.7 g - Calcium Chloride (CaCl2) 33 % 33%  
^ Lot # 115038  
^ Brouwstore (NL) 055.035.0  
Mash - 0.7 g - Canning Salt (NaCl)  
^ Albert Heijn (NL)  
Mash - 0.18 g - Epsom Salt (MgSO4)  
^ Lot # /2119000091  
^ Brouwstore (NL) 055.027.7  
Mash - 0.18 g - Gypsum (CaSO4)  
^ The Malt Miller (UK) CHE-03-004  
Mash - 0.9 ml - Lactic Acid 80% 80%  
^ Lot # 20200213  
^ Brouwstore (NL) 003.002.3  
15 min - Boil - 0.308 items - Yeast Nutrients  
10 min - Boil - 0.308 items - Supermoss HB Fi...

**Yeast**  
0.8 pkg - Fermentis Saflager Lager W-34/70  
^ The Malt Miller (UK) YEA-02-032

**01 Brouwpunt 5L (30min) (rev 4)**

Batch Size : 5.6 L  
Boil Size : 6.86 L  
Post-Boil Vol : 5.96 L  
  
Mash Water : 3.38 L  
Sparge Water : 4.68 L  
Boil Time : 30 min  
Total Water : 8.06 L



Brewhouse Efficiency: 71.8%  
Mash Efficiency: 73.3%

**Mash Profile**  
High fermentability plus mash out  
71 °C - Strike Temp  
65 °C - 60 min - Temperature  
75 °C - 10 min - Mash Out

**Fermentation Profile**  
Lager (Quick Method)  
10 °C - 5 days - Primary  
13 °C - 2 days - Primary  
14 °C - 1 days - Primary  
15 °C - 1 days - Primary  
5 °C - 21 days - Conditioning

**Water Profile**  
02 NL Spa Reine Flat Mineral Water (www.ah.nl...  
Ca 21 Mg 4 Na 38 Cl 76 SO 25 HCO 20

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:

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## Recipe Notes

The recipe from the David Heath video guide on Youtube "Munich Helles Lager HomeBrewers Guide & Recipe".

Adapted for local available ingredients.

W34/70 Tmax = 15 C, tweaked the fermentation profile (was day 9 @ 17 C and day 10 @ 19 C).