

## Munich Helles Lager - 5.4%

### Munich Helles

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Type: All Grain

IBU : 20 (Tinseth)  
 BU/GU : 0.42  
 Colour : 8 EBC  
 Carbonation : 2.5 CO2-vol

Pre-Boil Gravity : 1.039  
 Original Gravity : 1.045  
 Total Gravity : 1.048  
 Final Gravity : 1.007

### Fermentables (1.13 kg)

1 kg - Pilsner Malt 3.5 EBC (88.2%)  
 61 g - CaraPils/Carafoam 3.9 EBC (5.4%)  
 49 g - Vienna Malt 9 EBC (4.3%)  
 24 g - Melanoidin 59 EBC (2.1%)  
 32 g - Bottling - Sugar, Table (Sucrose) 2 EBC  
 ^ Albert Heijn (NL)

### Hops (14.3 g)

30 min - 8.1 g - Summer (Summer Saaz) - 5.5%...  
 5 min - 6.2 g - Summer (Summer Saaz) - 5.5% (...)

### 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

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

Batch Size : 5.6 L  
 Boil Size : 6.86 L  
 Post-Boil Vol : 5.96 L

Mash Water : 3.4 L  
 Sparge Water : 4.67 L  
 Boil Time : 30 min  
 Total Water : 8.07 L



8 EBC

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  
 17 °C - 1 days - Primary  
 19 °C - 1 days - Primary  
 5 °C - 21 days - Conditioning

### Water Profile

02 NL Spa Reine Flat Mineral Water ([www.ah.nl](http://www.ah.nl))  
 Ca 21 Mg 4 Na 38 Cl 76 SO 25

SO/Cl ratio: 0.3  
 Mash pH: 5.37  
 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

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