

9 EBC

## SMaSH Apollo - 5.1%

American Pale Ale Author: The Thirsty Otter

Type: All Grain

IBU : 33 (Tinseth) BU/GU : 0.69 : 9 EBC Colour

Carbonation : 2.5 CO2-vol

Pre-Boil Gravity : 1.034 Original Gravity : 1.045 Total Gravity : 1.047 Final Gravity : 1.008

Fermentables (1.1 kg)

1.1 kg - Maris Otter Pale Ale Malt 5.9 EBC (1...

^ Lot # 67-200827-161058-155815-1/1 ^ The Malt Miller (UK) MAL-00-036

32 g - Bottling - Sugar, Table (Sucrose) 2 EBC

^ Albert Heijn (NL)

Hops (37.1 g)

15 min - 4 g - Apollo (T90) - 16.7% (17 IBU)

^ The Malt Miller (UK) HOP-05-018

Hop Stand

10 min hopstand @ 80 °C

10 min - 23.8 g - Apollo (T90) - 16.7% (15 IBU)

^ The Malt Miller (UK) HOP-05-018

Dry Hops

7 days - 9.3 g - Apollo (T90) - 16.7%

^ The Malt Miller (UK) HOP-05-018

Miscellaneous

Mash - 0.79 g - Baking Soda (NaHCO3)

^ Lot # 41190621/3

^ Brouwstore (NL) 003.106.2

Mash - 0.5 g - Calcium Chloride (CaCl2) 33 % 33% Pre-Boil Gravity:

^ Lot # 115038

^ Brouwstore (NL) 055.035.0

Mash - 0.49 g - Canning Salt (NaCl)

^ Albert Heijn (NL)

Mash - 1.18 g - Epsom Salt (MgSO4)

^ Lot # /2119000091

^ Brouwstore (NL) 055.027.7

Mash - 3.12 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

Mash - 3.3 l - NL Spa Reine Flat Mineral Water

^ AH (NL)

Sparge - 5.64 l - NL Spa Reine Flat Mineral W...

^ AH (NL)

60 min - Boil - 0.15 g - Lipohop K

^ Lot # LPK110

^ The Malt Miller (UK) CH-03-013

10 min - Boil - 1 g - Irish Moss

^ Lot # 4348

^ Brouwstore (NL) 125.249.1

10 min - Boil - 0.05 g - Lallemand Servomyces

^ Lot # 154001112904ABV

^ Brouwstore (NL) 050.620.4

01 Brouwpunt 5L (60min) (rev 4)

: 5.6 L Batch Size Boil Size : 7.76 L Post-Boil Vol : 5.96 L

Mash Water : 3.3 L Sparge Water : 5.64 L Boil Time : 60 min

Total Water : 8.94 L

Brewhouse Efficiency: 71.8% Mash Efficiency: 73.3%

Mash Profile

01 One Step Mash (60 min) 68.7 °C - Strike Temp

63 °C - 60 min - Temperature

Fermentation Profile

01 Ale + DR + Conditioning

20 °C - 10 days - Primary

23 °C - 4 days - Diacetyl rest

20 °C - 14 days - Carbonation

20  $^{\circ}\text{C}$  - 28 days - Conditioning

Water Profile

NL Spa Reine Flat Mineral Water (www.ah.nl) (...

Ca 93 Mg 15 Na 49 Cl 50 SO 250 HCO 80

SO/Cl ratio: 5 Mash pH: 5.38 Sparge pH: 6

Measurements

Mash pH:

Boil Volume:

Post-Boil Kettle Volume:

Original Gravity:

Fermenter Top-Up:

Fermenter Volume:

Final Gravity:

Bottling Volume: