

# AROMA EXTRACT

Dark brown semi-solid extract containing hop essential oils and waxes.



## OVERVIEW

- **Aroma Extract** is an enriched hop oil product derived from CO<sub>2</sub> extract.
- **Aroma Extract** can be added early to the wort kettle as an antifoam agent. If added late in the boil, this product imparts a distinct hop aroma to beer.
- **Aroma Extract** can help suppress microbial infections due to the presence of beta acids.
- **Aroma Extract** does not contribute to the sensory bitterness of beer.

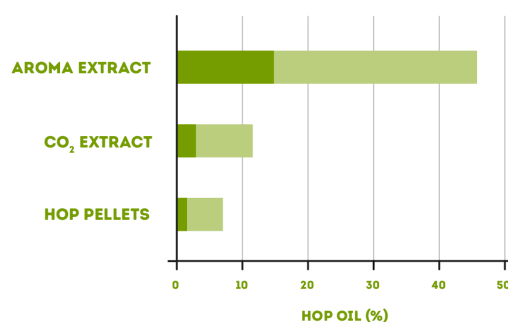
## PROPERTIES

APPEARANCE	<b>Aroma Extract</b> is a dark brown, semisolid or moderately viscous paste which becomes fluid when warmed.
FLAVOUR	<b>Aroma Extract</b> provides hop character when added to the kettle. Late kettle additions impart a typical late hop aroma to the finished beer.
UTILIZATION	Actual utilization will vary from brewery to brewery due to differences in equipment and process conditions.
QUALITY	All Ellerslie Australia products are processed in facilities which fulfill internationally recognized quality standards.
PACKAGING	<b>Aroma Extract</b> can be packaged in cans and pails according to customer requirements:  Cans: 0.5 to 4 kg (USA) 0.5 to 4.2 kg (Germany) Pails: 4 to 20 kg (USA only) Jugs: 2.5 Gal. (USA only) Drums: 50 and 200 kg

## QUICK SPECS

DESCRIPTION	Dark brown semi-solid extract containing hop essential oils and waxes.
COLOR*	Dull green
BETA ACIDS*	< 20%
ISO-ALPHA ACIDS	< 0.5%
ALPHA ACIDS	< 0.5%
HOP OIL*	15 – 45%
pH	7.5 – 8.0
VISCOSITY	35 – 50mPas at 50°C (122°F)
DENSITY	1.0g/ml at 20°C (68°F)
*DEPENDENT ON VARIETY AND CROP YEAR	

## COMPARISON OF HOP OIL CONCENTRATION IN HOP PRODUCTS



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## PRODUCT USE

**Aroma Extract** is typically added to the kettle to achieve a characteristic hop aroma. An early addition aids in suppressing foam formation at the beginning of wort boiling.

### DOSAGE

Actual dosage of **Aroma Extract** will depend on the extract analysis (hop oil content), the time of the addition and the desired intensity of hop aroma.

Example: (hop oil content of 30%)  
Add 6.7g/hl **Aroma Extract** toward the end of the boil. This corresponds to a hop oil addition of 2.0g/hl.

### ADDITION

Pre-warming cans of **Aroma Extract** is not necessary. Suspending punctured cans in the boiling wort will ensure that all of the extract is completely flushed out into the kettle.

If **Aroma Extract** is added by means of automatic dosing units, it should be warmed to 45°C (113°F) and gently mixed to ensure perfect dosing.

### STORAGE

**Aroma Extract** should be stored in sealed containers at temperatures < 10°C (50°F). Opened containers should be used within a few days.

### BEST BEFORE DATE

**Aroma Extract** is stable for six years from the date it was produced / packaged if stored under the recommended conditions.

### SAFETY

**Aroma Extract** should be handled like regular CO<sub>2</sub> extract. Any product coming into contact with the skin should be immediately washed off with soap and water or an appropriate hand cleanser. If **Aroma Extract** gets into the eyes, flush with copious amounts of water until clear and seek medical attention.

## ANALYTICAL METHODS

### CONCENTRATION OF HOP OIL

The hop oil concentration can be measured using the following methods:

- Analytica-EBC 7.10
- ASBC Hops 13

### CONCENTRATION OF BETA ACIDS

Beta acids (as well as iso-alpha acids and alpha acids) can be measured using the following methods:

- HPLC according to Analytica-EBC 7.8 or ASBC Hops-16 with the current ICS and ICE standards

## TECHNICAL SUPPORT

We are pleased to offer assistance and advice on the full range of Ellerslie Australia products:

- copies of all relevant analytical procedures
- Safety Data Sheets (SDS)
- assistance with pilot or full-scale brewing trials
- special analytical services

Disclaimer: The information provided in this document is believed to be correct and valid. However, Ellerslie Australia does not guarantee that the information provided here is complete or accurate and thus assumes no liability for any consequences resulting from its application.



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