MURPHY& SON

TECHNICAL DATA SHEET



ALGINEX

<u>1</u> <u>DESCRIPTION</u>

The product is an auxiliary finings for use in conjunction with isinglass finings in cask conditioned beers.

- Very concentrated, saving on storage space
- ♦ Easily mixed into beer in fermentation vessel or cask
- Provides the extra clarification required for cask beers
- ♦ Long shelf life

2 STORAGE AND SHELF LIFE

- Store in cool conditions, away from direct sunlight
- Keep containers sealed when not in use
- Maximum storage temperature 20°C
- Recommended storage temperature 10 to 15°C
- Minimum storage temperature 1°C
- Do not allow the product to freeze
- The shelf life at the recommended storage temperature is indefinite
- Alginex will form a precipitate during storage. This does not impair the performance

<u>3</u> <u>PACKAGING</u>

1 litre	25 litre
Bottle	Drum

<u>4</u> <u>USING THE PRODUCT</u>

(a) How to dilute the product

Alginex must be diluted with water before use, to make a ready-for-use solution.

Take 1 part Alginex, add 287 parts water and mix thoroughly. The water does not have to be deionised and should be at a temperature of between 5°C and 18°C, preferably between 10°C and 15°C. This ready-for-use solution can be stored in a closed vessel before use, enabling batches to be made up to cover several rackings over a period of time.

(b) How much of the product to add

Most cask conditioned beers will require an addition of auxiliary finings at rates between $\frac{1}{2}$ pint and $\frac{1}{2}$ pints per barrel. For the most commonly used containers, these addition rates are as shown below:-

ALGINEX	9 gallon (Firkin)		18 gallon (Kilderkin)		36 gallon (Barrel)	
½ pint per barrel	¹ / ₈ pint	0.07 litres	1/4 pint	0.14 litres	½ pint	0.28 litres
1 pint per barrel	1/4 pint	0.14 litres	½ pint	0.28 litres	1 pint	0.57 litres
1½ pints per barrel	3/ ₈ pint	0.21 litres	¾ pint	0.43 litres	1½ pints	0.85 litres

(c) Where to add auxiliary finings

Auxiliary finings can be added at one of several points. See also below '*Using auxiliary finings with isinglass*':-

• Into the fermentation vessel

In order to avoid the difficulties of mixing auxiliary and isinglass finings in cask, the auxiliary can be added to the fermentation vessel. The addition should be made at the end of fermentation, just as the vessel goes onto chill. In most case, the residual fermentation and convection currents on cooling are sufficient to mix the product. With larger vessels, it is recommended to recirculate the tank contents if possible or to rouse with CO_2 from the tank bottom.

• Into the beer main feeding the racking heads

This method is combined with proportional metering to ensure the correct rate of addition. Typically, the auxiliary is added first and a static mixer should be positioned between the addition point and the isinglass addition point downstream. If the distance to the racking head is short, another static mixer should be used after the isinglass.

• Into the cask before it is filled

The appropriate quantity of auxiliary is put into the cask before filling. If the filling rate is fast and turbulent, isinglass can then be added towards the end of the fill or after.

(d) Using auxiliary finings with isinglass

With many cask conditioned beers, the best clarity is achieved by using an isinglass fining product such as Caskleer, Allkleer, Tankleer or Kompactikleer in combination with an auxiliary. The auxiliary products enhance the action of the isinglass. Isinglass can be added at one of several points:-

• Into the beer main feeding the racking heads

This method is combined with proportional metering to ensure the correct rate of addition. If the distance to the racking head is short, a static mixer should be used.

• Into the cask as part of the racking process

Ready-for-use isinglass is metered into the beer as it fills the cask. The turbulence of the filling process ensures good mixing.

• Into the cask before the cask is filled

The appropriate quantity of ready-for-use isinglass is put into the cask before filling. Mixing can be poor if the filling rate is slow and further agitation is then recommended.

• Into the cask after it has been filled

The least reliable method as mixing is then totally dependent on agitation or rolling of the cask after filling. With full casks and little headspace, effective mixing of the isinglass takes much more agitation than is generally realised.

<u>5</u> <u>GUIDELINES FOR USE</u>

DO

- Check that the product is within its shelf life before use
- Ensure that auxiliary finings are well mixed into the beer before adding isinglass
- Carry out optimisation trials to determine the correct rate of use

DO NOT

- Mix auxiliary and isinglass finings before they are added to beer
- Add too much auxiliary finings. Tank bottoms will be very loose with high beer losses
- Use this product except in combination with isinglass on its own it has no effect

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6 TECHNICAL SUPPORT

For Health & Safety information on this product, please see the Materials Safety Data Sheet (MSDS)

For support and advice on the use of this product, please call or e-mail our Technical Administrator:-

Telephone:- + 44 (0)115 978 5494

E-Mail:- laboratory@murphyandson.co.uk

<u>7</u> SPECIFICATION

Composition	A solution of gum polysaccharide containing sodium metabisulphite as preservative		
Appearance	A dark brown liquid		
Odour	Sulphur dioxide (SO ₂)		
<u>Analysis</u>			
Sulphur dioxide (%)		> 15 *	
Colour (EBC)		1.9 - 2.2	
Microbiological (cfu/ml)		< 10,000	
Flavour		Does not adversely affect beer flavour	
Maximum Limi	ts of Impurities		
As (ppm)		3	
Pb (ppm)		10	
Cu (ppm)		50	
Zn (ppm)		25	
Cu + Zn ((ppm)	50	

^{*} The sulphur dioxide specification is that at the time of manufacture. Because of its volatile nature, the level at delivery may be less than this figure

This product is classed as acceptable for use in food by the MAFF document 'Report on the Review of Additives and Processing Aids used in the Production of Beer' (FAC/REP/26).

Sulphur dioxide and sulphites at concentrations of more than 10 mg/kg or 10 mg/litre expressed as S0₂ must be labelled as allergenic (*European Directive (2003/89/EC)*).

<u>8</u> <u>REFERENCE</u>

Product	Alginex
Authorised by	H.J. Kane
Issue No.	4.1

Product Code	ALGX
Formulation	BM02
Date	28/02/03