Technical Information



Vicant (RED 411) Beer Antioxidant

Description

Vicant is an anti oxidant and anti browning agent designed to enhance flavour and colloidal stability in beer.

It is a white, crystalline powder which is fully soluble in water. Vicant supplies sources of sulphur dioxide and ascorbate.

Principle

The active components function in two ways, by scavenging dissolved oxygen and blocking staling reactions.

Vicant slows the formation of off flavours, typically described as paper or cardboard, by binding with the causative carbonyl compounds, particularly trans-2-nonenal.

$$C - O + HSO_3 \rightarrow C$$
SO₃

Vicant also contains oxygen scavengers. These act at different rates, the faster acts to protect the beer during pasteurisation, the slower to protect during storage.

Benefits

- Improved flavour stability
- Improved colloidal stability
- Slower rate of browning

Treatment Rate

Typically in the range 2 - 3 g/hl

Application

Vicant should be added to beer as a solution, prepared at a strength of 5% in de-aerated brewing water. Stirring should be thorough, but not overly vigorous in order to minimise oxygen up-take.

Vicant should be added in line using a proportioning pump, either immediately prior to, or after filtration. Batch addition of Vicant solution should be avoided if possible to avoid the effect of localised over-concentration.

Brewing Practice

Vicant is formulated from food grade ingredients, well accepted and proven by the brewing industry as beer antioxidants.

Regulatory

Vicant added to beer at a rate of 3 g/hl will contribute 10 mg/l sulphur dioxide. Local regulations should be consulted.

Europe

Sodium Erythorbate (C6H7NaO6.H2O) E 316 Sodium Metabisulphite (Na2S2O5) E 223

Approved under EEC Directive 95/2, L61/25.

USA/FDA

Approved in Brewing Adjuncts Manual. Sodium Erythorbate 1/26/68 GRAS 21 CFR 182.3041 tab 9, page 15. Sodium Metabisulphite 1/26/68 GRAS 21 CFR 182.3766

Australia/NewZealand Food Standards Code Standard 1.3.1, 14.2.1