

TANAL 02

Tannic acid Tanal 02 Instructional guide

Tanal 02 is a medium to high molecular weight hydrolysable tannic acid specially purified for applications in the food industry.

• **ORIGIN, PRODUCTION**

Tanal 02 is a 100 % natural material extracted from renewable plant materials using strictly controlled production facilities in accordance with the latest food GMP standards. No artificial preservatives or additives are used in the production of *Tanal 02*.

• **USAGE IN BEER APPLICATIONS**

Can be added during beer maturation process in order to create a natural stable haze. As these polyphenols are a natural extract they contains a ratio of molecules, some of which will sediment to the tank bottom, others who will float in the beer. A maturation step of at least 4 days at low temperature would need to be conducted to limit sedimentation in the final beer.

Due to strong radical scavenging and metal complexing properties, *Tanal 02* can also be used as a stabilising aid to increase shelf life. It will protect bitterness flavours and decrease formation of off-flavours caused by oxidational Fenton reactions and the effect of sun light.

Do's:

- Prepare a presolution using hot water (between 40 and 60°C) on a 1 to 20 ratio.
- Add Tanal 02 during fermentation/maturation stage.
- After adding Tanal 02 properly agitate the beer. According to temperature at least 5 minutes at 2°C, at least 20 minutes at 7°C or at least 30 minutes at 20°C.
- Before adding it to the tank, try out dosing by adding Tanal 02 to the clear wort or finished beer. Once an acceptable haze is perceived add double the dose to fermentation/maturation stage. Because of the cold temperatures and oxidation reaction you will partly lose some of the haze effects.
- To improve haze stability, other stabilization agents removing proteins should be limited.
- A period of at least 4 days at low temperatures is required to guarantee a stable haze.
- Starting concentration ranges between 3 and 6 grams/hl are advised, overdosage could lead to flock formation and clarification of the beer. A good equilibrium should be reached depending on haze forming proteins and haze forming polyphenols.

Don'ts:

- Adding enzymes will break apart any proteins (proteases) or polyphenols (tannases), this would reduce the capability to form a natural haze.
- Do not add Tanal 02 to the wort before Whirlpool as this will remove floating flocks in the beer.
- Do not add Tanal 02 granulate directly to the tank, make a presolution first.
- When added only during bottling some sedimentation in the bottles could be expected.
- Don't add Tanal 02 in multiple steps but all at once

- **STORAGE AND HANDLING**

Tanal 02 has a shelf life of min. 5 years if stored in a dry area in its original closed packaging. The product is not frost sensitive and normal ambient storage conditions (i.e. 5 - 25°C, RH < 70 %) suffice.

Prolonged exposure of *Tanal 02* to light can cause a gradual colour shift. This does not influence technical performance of the product unless colour is a critical parameter in the application. Storage of *Tanal 02* open to the atmosphere can result in moisture uptake from the surroundings and lumping. Therefore reseal the inner plastic bag and keep the lid on the fibre drum if *Tanal 02* is not in use.

Due to its granular form *Tanal 02* produces little or no dust during handling.

- **PACKAGING**

Tanal 02 is available as a granular product in 25 kg fibre drums lined with an inner food-contact compliant polyethylene bag.

- **REGULATORY & FURTHER INFORMATION**

Tanal 02 is compliant with the latest FCC and FAO-WHO tannic acid monographs. *Tanal 02* is considered a natural flavouring substance under EU-Food law.

Information on usage and applications can be found in our Application Fact Sheet. Our R&D department can provide you further detailed information on composition and regulatory status.

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