



DELTABREW® Chill Proof

Product Data Sheet

Date of issue: 28 July 2022

Papain for haze removal in beer

Description: DELTABREW® Chill Proof is a specially formulated liquid papain from *Carica papaya*, used to prevent haze formation caused by the association of some proteins present in the beer with phenolics during cold storage. DELTABREW® Chill Proof can be added in the fermentation, during maturation or later in the bright beer tank before bottling.

Properties: Enzyme: Papain IUBMB: 3.4.22.2
 Activity: 100 TU units/mg Form: liquid
 Colour: brown

Colour and appearance may vary from batch to batch. Colour intensity or turbidity is not an indication of enzyme activity.

Application: DELTABREW® Chill Proof is used to prevent protein haze in beer during cold storage.

Conditions of use: DELTABREW® Chill Proof has shown to best perform when used under the following conditions:

| Application | Dosage | Recommendation |
|--|---|---|
| During fermentation or beer maturation or in the beer tank before bottling | 1.5 g/hl for 10° Plato 2 g/hl for 12.5-13° Plato 2.5-3 g/hl for 16° Plato | Optimum conditions: pH 3.5 - 5.5 Temperature: 0 - 20 °C |
| Warning: in case of overdosing, papain can make the beer foam unstable. | | |

GM Status: The product and its constituent enzymes are not genetically modified. Enzyme proteins are extracted from non-GMO plants (*Carica papaya*).

Composition: DELTABREW® Chill Proof contains sodium metabisulfite (E223).

Packaging and storage: DELTABREW® Chill Proof is available in 25 kg polyethylene drums or IBCs. The product is best stored in the original and unopened packaging under refrigerated conditions (4–8 °C) in order to retain maximum activity during storage. Under optimal storage conditions shelf life is 24 months.

Safety and caution: Enzyme products need to be handled with care. Please consult the separately available Safety Data Sheet for further information.



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Compliance and legal: Our enzyme products are used as processing aids in the food manufacturing process and are thus free from any labelling provisions in the European Union. The product does not fall within the scope of EU regulations (EC) 1829/2003 and (EC) 1830/2003 on genetically modified food and feed.

The product is manufactured to comply with recommended purity specifications given by the Joint FAO/WHO Expert Committee on Food Additives (JECFA), and conforms with the recommended specifications of the Food Chemical Codex for food enzymes.

| | | |
|----------------------------------|-----------------------------|---|
| Purity criteria: | Total plate count | < 50 000 CFU per g |
| | Yeasts & Moulds | < 1 000 CFU per g |
| | Total Coliforms | < 30 CFU per g |
| | Salmonella | absent in 25 g |
| | Escherichia coli | absent in 25 g |
| | Heavy Metals (as Pb) | < 30 ppm |
| | Lead | < 5 ppm |
| | Arsenic | < 3 ppm |
| | Cadmium | < 0.5 ppm |
| | Mercury | < 0.5 ppm |
| Special diet information: | Kosher: | Certified |
| | Halal: | Certified |
| | Vegan/Vegetarian: | enzyme product or any constituents are not of animal origin |

Certification: WeissBioTech GmbH has a certified quality management system according to ISO 9001:2015 and a certified Food Safety Management System according to FSSC 22000 incl. HACCP, which are reviewed in regular audits.

Made by WeissBioTech GmbH, Germany

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