



## Application Data Sheet

DSM Food Specialties B.V.

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# BREWERS CLAREX<sup>®</sup>

Prevent chill haze in beer with a highly specific endopeptidase

## BENEFITS

BREWERS CLAREX<sup>®</sup> prevents chill haze in beer with a highly specific endopeptidase. Because of its specificity, this processing enzyme ensures good foam properties and other beer quality aspects.

## PRODUCT DESCRIPTION

BREWERS CLAREX<sup>®</sup> is a product containing a highly specific fungal endopeptidase enzyme. This enzyme only cleaves in haze sensitive polypeptides at the carboxyl end of the amino acid proline.

## FUNCTION

Chill haze in beer results from the precipitation of complexed polyphenols and proteins during cold storage. This precipitation has been shown to result from hydrogen bonding between polyphenols and the proline rich fraction of particular polypeptides. This haze develops over time and, initially, is reversible (haze disappears when the temperature of the beer increases). The chill haze can become permanent as the hydrogen bonding gets stronger.

BREWERS CLAREX<sup>®</sup> prevents precipitation by hydrolyzing the sensitive (haze-active) polypeptides. It cleaves specifically the sites where such hydrogen bonding occurs. This specificity of the enzyme ensures that no other beer parameters are affected.

## APPLICATION

BREWERS CLAREX<sup>®</sup> can be used with all kinds of malts and other raw materials. The product is added to cooled wort at the beginning of fermentation.

The required dose rate is determined by:

- the percentage of barley malt, raw barley and/or wheat of the total grist composition;
- the specific gravity (Plato) of the wort at the beginning of fermentation;
- the shelf-life required (months).

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## RECOMMENDED DOSE RATES OF BREWERS CLAREX<sup>®</sup>

Beer shelf-Life Requirement →		6 - 9 months	9 - 12 months
Raw Material (by extract)	100% barley malt	1 - 2 g/HL	2 - 3 g/HL
	60% barley malt	1 - 1.5 g/HL	1.5 - 2 g/HL

\*Recommended dose rates based on a 12°P wort

## TECHNICAL SERVICE

This product was developed by our dedicated team of experts. They can help you to maximize the yield and efficiency of your mash and beer filtration processes, building on extensive biochemical knowledge and many years of brewing experience.

Please contact your local DSM Food Specialties technical sales representative to receive additional information on meeting your needs.

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