



NATUZYM® AA TS

Product Data Sheet

Date of issue: 30 July 2022

Amylase enzyme for the fruit juice industry

Description: NATUZYM® AA TS is an amylolytic enzyme preparation with a high level of acid amylase. It is used during the hot clarification process of pome fruit juices and to prevent the formation of filamentous cloudiness. NATUZYM® AA TS is obtained from selected strain of *Aspergillus niger* and it contains mainly acid amylase. NATUZYM® AA TS is used in apple and pear juice production during the depectinisation after the pasteurisation step (92–95 °C). Although the product has a high thermal stability, up to 75 °C, it is recommended to apply this special amylase at 50 – 55 °C, as this corresponds to the optimum temperature for pectinase.

Properties:

Enzyme: acid amylase	IUBMB: 3.2.1.1
Activity: >200 AA units/g	Form: liquid
Density: 1.1–1.25 g/ml	Colour: brown

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

Application: NATUZYM® AA TS has been especially developed for starch hydrolysis in apple and pear juice, during the depectinisation stage of the process.

Conditions of use: NATUZYM® AA TS with an activity of min. 170 S-Amylase U/g is easy to use. Upon dilution (10-15x with cold tap water) the product can be simply added with a metering pump to the juice. Stirring is recommended during 5 minutes after filling to ensure a good homogenisation.

Application: For apple and pear juice 12° Brix	Dosage recommendations: 1 to 2 hours at 45-55°C
Early season fruit	20-50 ml/1000 l
Advanced and late season fruit	5-30 ml/1000 l

GM Status: The product and its constituent enzymes are not genetically modified. Enzyme proteins are produced by fermentation of classical microorganisms, which are removed and not present in the final product. Only agricultural raw materials of non-genetically modified (non-GM) origin are used for the fermentation process and in the final formulation.

Composition: NATUZYM® AA TS is stabilised with glycerol and preserved with sodium benzoate and potassium sorbate.

Packaging and storage: NATUZYM® AA TS 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 conditions the 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	< 30 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

To the best of our knowledge, the information contained herein is accurate and complete. However, nothing herein contained shall be construed to imply any warranty or guarantee.

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