

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV GL

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Chemistry at the service of Industry

RENZYME AS-2

Alfa-amilase enzyme

PRODUCT DESCRIPTION

The **RENZYME AS-2** is an enzymatic preparation containing alpha-amylase used for the breakdown of starches at low - medium temperature (20 - 70 ° C). The product is applied in the papermaking process to thin the starch substrate used in the size-press. **RENZYME AS-2** prevents and controls the high viscosity and gelatinization of the starch solution, through a partial depolymerization of the starch into soluble dextrins.

BENEFITS

- Compatible with most of the chemicals present in a paper mill
- decomposes rapidly in the presence of strong oxidants such as hydrogen peroxide
- Deactivated at temperatures above 90 ° C

PRODUCT APPLICATION

The conditions of use are as follows:

- pH range 4,5 ÷ 7,0
- temperature range: 20-70 ° C
- Action times between 5 to 30 minutes

Avoid direct contact with strong oxidizers, such as hydrogen peroxide and hypochlorite, with metals and their salts (eg. Nickel, copper, silver). The enzyme is deactivated above 90 $^{\circ}$ C.

The product must be added at a point with good agitation after having dispersed starch powder in water, and then maintain the suspension under stirring for a time between 5 and 30 minutes depending on the quantity of dosed product and the temperature of the suspension before cooking.

<u>Dosage:</u> the average dosage is generally between 200 ÷ 600 gr per ton of starch, it must be control case by case in accordance with laboratory test.

It is recommended not to exceed the suggested dosages, which can however be optimized in collaboration with the local NCR Biochemical representative. The product must be used according to the control procedures established by the supplier for a specific application.

TYPICAL PROPERTIES

Appearance liquid

Colour light to dark brown

pH $5,0 \div 7,0$

Density $1,25 \pm 0,05 \text{ g/ml}$

For more information please refer to the MSDS (Material Safety Data Sheet) Section 9.

STORAGE AND PACKAGING

<u>Storage:</u> keep away from freeze, storage at room temperature, avoid also temperatures higher than 35°C. Shelf life 6 months.

Standard packaging: 25 kg jerry-can, 1200 kg IBC.

HANDLING AND PRODUCT SAFETY

Before using any chemical product, read and understand the MSDS (Material Safety Data Sheet) carefully and make sure to wear all the necessary PPE (Personal Protection equipment).

The information contained in this Technical Data Sheet is based on our present knowledge and believed to be reliable. It does not constitute a legal warranty, expressed or implied, regarding particular characteristics and performances and must not be considered as a guarantee of specific properties.

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Fax: +39 051 6869617