

Pure Fermentation

SIHA AmyloFerm

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07/2000

(Saccharomyces diastaticus)

SIHA AmyloFerm is a dry pure culture yeast that is used in particular for the alcoholic fermentation of starch mash for direct inoculation. The special advantages include not only rapid fermentation and high alcohol yield but also good temperature tolerances of up to 40 °C (104 °F). This stock of yeast is therefore well-suited for the extraction of amylaceous distillery mash derived from potatoes, topinambour, and grain.

The specific advantages of SIHA AmyloFerm include:

- ▶ Specially suitable for fermentation of amylaceous distillery mash made from potatoes, topinambour, and grain
- ▶ High alcohol yield and high alcohol tolerance of up to 18 % by volume
- ▶ Exo-amylase activity can split liquid starch and also ferments dextrin, maltose, and melibiose
- ▶ Effective formation of alcohol and efficient fermentation processes
- ▶ Completely fermentable up to 40 °C (104 °C)

Application

SIHA AmyloFerm particularly suitable for the fermentation of extremely amylaceous distillery mash.

Purpose of use	Application dosage g/hl (lb/1000 gal)	
	normal	difficult fermentation conditions
Grain mash	25 – 30 (3.34 – 4)	40 – 50 (5.34 – 6.68)
Potato mash, topinambour	25 – 30 (3.34 – 4)	40 – 50 (5.34 – 6.68)

The quantities indicated are reference values and should be adapted to individual conditions according to the healthiness of the fermentation material, the temperature, container size, etc.

The optimum fermentation temperature is between 30 °C (86 °F) and 38 °C (100.4 °F), the starting and fermentation temperature should be at least 10 °C (50 °F). Heated mashes may be mixed with SIHA AmyloFerm only after recooling or cooling down to 20 °C (68 °F).

It is best to stir in SIHA AmyloFerm with 5 times the volume of water at a temperature of 35 °C (95 °F) and added to the mash after approx. 15 minutes after thoroughly stirring again. SIHA AmyloFerm can also be added directly to the mash without being suspended which extends the preliminary fermentation period several hours. The quantity used should then be increased approx. 20 %.

Product Characteristics

SIHA AmyloFerm is capable of producing a high alcohol yield due to high exo-amylase activity. It can split liquid starch and also ferments dextrin, maltose, and melibiose. SIHA AmyloFerm has an up to 18 % by volume alcohol tolerance and ensures effective formation of alcohol and efficient fermentation processes. The production of foam depends on the fermentation substratum. The optimum fermentation temperature is between 30 and 38 °C (86 – 100.4 °C).

After several years of selection work we were successful in increasing the exo-amylase activity of the yeast during the fermentation process. This very positive yeast property - fermentation of liquid starch, dextrin, maltose, melibiose – is constantly increased and assured through continuous selection. Further aims of the development work were increased fermentation activity and vitality.

SIHA AmyloFerm indicates a favourable course of fermentation process and a high degree of fermentation with optimum alcohol yield. Wild yeast and undesirable bacteria are suppressed. SIHA AmyloFerm produces no fermentation by-products such as SO₂, H₂S, acetaldehyde, pyruvic acid (pyruvate), α-oxoglutaric acid, volatile acids and esters.

Safety

Specifications for SIHA AmyloFerm with regard to safety regulations are not required for SIHA AmyloFerm since this product is used for the direct production of food products. There are no health or environmental risks whatsoever involved in storing, handling, and shipping this product.

Additional information: Water danger class (WGK) = 0.

Storage

SIHA AmyloFerm is hermetically sealed under protective gas in multiple layered aluminium foil. The product is vacuum packed thus making it easy to check if the packaging is intact.

Undamaged packages of SIHA AmyloFerm can be stored at 4 – 10 °C (39.2 – 50 °F) for three years. It can also be stored for short periods at 20 °C (68 °F). Immediately use up all opened packages.

Delivery Information

The article number of SIHA AmyloFerm is 93.180 and is supplied in the following packages:

500 g (1.1 lb) Aluminium compound block pack
20 x 500 g (1.1 l) Aluminium compound block pack in carton

HS customs tariff: 2102 10 90

Cerified Quality

SIHA AmyloFerm is regularly tested for uniform high product quality during the production process.

These tests include comprehensive technical function criteria as well as safeness according to food product laws. Furthermore, stringent inspections are performed immediately prior to and during final packaging.

SIHA AmyloFerm complies with the purity criteria of the international code for wine treatment products and the provisions of German wine regulations.



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