

S-VODKA

HIGH-PURITY SPIRIT FERMENT

A high-yielding yeast and nutrient complex for urea-free fermentations, for the production of vodka. S-VODKA is an active dried distiller's yeast with optimised nutrition, low congener formation, and developed to ferment grain, potato, or refined sugar washes up to approximately 14% ABV.

Product Description & Function

S-VODKA is based on a non-diastatic, high yielding, lowcongener active dried distiller's yeast particularly suited to high purity ethanolic fermentations. Formulated with a complete, chemically-defined nutrient complex, S-VODKA is optimised for any fermentable sugar substrate wash fermentations up to approx. 14% ABV.

S-VODKA can be used with any starch substrate such as wheat, potato, or refined sugars. Note that potato, wheat, or other grains will require mashing for enzymatic conversion of starch and/or dextrins into fermentable sugars prior to fermentation.

The nutrient complex in S-VODKA contains all essential macro and micro-nutrients required for a healthy fermentation, including nitrogen (urea-free source), phosphate, magnesium, B vitamins and trace minerals.

Recommended For

Fermentation of wash to produce vodka spirit or neutral spirit alcohol.

Organoleptic Qualities

Wash fermented with S-VODKA has very low levels of higher alcohols and esters and yields a vodka spirit with a clean and neutral flavour and aroma profile.

Note: S-VODKA contains high levels of sodium salts and is not recommended for fermented beverage alcohol not intended for distillation.

Technical Characteristics

Yeast Classification	Saccharomyces cerevisiae
Temperature Tolerance	20-32°C (68-90°F) (optimum 25-32°C / 77-90°F)
Killer Factor	Neutral
Alcohol Tolerance	Approx. 14% ABV
Viable Yeast Cells	> 1.2×10^9 cfu/g
Total bacteria	< 1×10^4 cfu/g
Wild Yeast	< 2×10^3 cfu/g
Mould	< 2×10^2 cfu/g
Coliforms	< 20 cfu/g
Pathogens (Salmonella, E. coli etc)	Absent in 25 g
Lead	< 2 mg/kg
Arsenic	< 1 mg/kg
Heavy Metals (as Pb)	< 10 mg/kg
GMO Status	GMO Free

Dosage & Application

Pitch rates: suggested rates are as follows (optimisation through bench trials is recommended):

Target ABV for fermentation:	8%	10%	12%	14%
S-VODKA dosage:	3.8 g/L	4.5 g/L	5.4 g/L	6.0 g/L

Pitching Method

S-VODKA requires agitation to dissolve nutrient salts so cannot be pitched directly without a mixing facility. For indirect pitching, pre-mix with 10 times its weight of water at 25-30°C (77-86°F) and mix for 5 minutes before pitching. Note that S-VODKA is not suitable for propagation or post-fermentation recovery for re-use due to nutrient depletion during fermentation.

Note: rehydration is only required for pre-dissolving nutrients rather than yeast activation. It is important to minimise contact-time (ideally < 15 minutes) to avoid high nutrient concentrations harming the yeast. Trials may be required to determine impacts of longer contact periods on yeast viability and fermentation kinetics.

Fermentation Temperature

S-VODKA can tolerate up to 32°C (90°F) and performs optimally in the 25-32°C (77-90°F) range.

pH Tolerance

S-VODKA ferments optimally at pH 4-5 but can still operate outside of this range (e.g. pH 3.5-6). It is best practice to monitor pH as it is likely to drop as fermentation progresses. If possible, avoid levels below pH 3.5 to avoid prolonged fermentation times.

Pack Sizes

1 kg packs, or 25 kg poly-lined paper sacks

Safety

This material is non-hazardous when used as directed. SDS available on request.

Storage

25 kg sacks: Store in original, sealed packaging away from direct sunlight. If stored below 10°C / 50°F this product will have a shelf life of up to 24 months. At 20°C / 68°F storage temperature, shelf life will be reduced to 12 months. After opening, re-seal tightly and keep refrigerated below 10°C / 50°F for up to 6 weeks.

1 kg packs: Store in a cool, dry place away from direct sunlight for a shelf life of 18 months. After opening re-seal tightly and keep refrigerated below 10°C / 50°F for up to 2 weeks.