

Document ID:	SPEC-P-14
Revision 3	27-May-2024
Approved By:	Philip Woodnutt



## Technical Data Sheet

### High Voltage Dehydrated Yeast

#### Product Description

**High Voltage Dehydrated Yeast** is developed by WHC Lab.

Introducing High Voltage – the electrifyingly clean yeast strain that's set to revolutionise your brewery's efficiency.

This innovative yeast doesn't just make great beer for almost any style (including lager), it's also a sustainable choice that's ahead of the curve. High Voltage thrives at much warmer temperatures than traditional brewing strains, and this has game-changing implications for your brewery's efficiency and environmental impact.

By operating at these elevated temperatures you can drastically improve your tank turnaround time due to increased fermentation kinetics, significantly reduce your energy consumption and get your creations to market faster, meeting the ever-increasing demand for your brews.

High Voltage is remarkably clean, with little ester production. It allows the hops and malt in your beer to shine through without any unwanted interference. Whether you're crafting a refreshing pseudo-lager, stout or IPA this is the perfect single strain solution for your brewery.

So, why wait for the future of brewing when you can embrace it today with High Voltage? Make the sustainable choice, enhance your brewery's efficiency, and create clean, sensational brews that stand out in a rapidly evolving industry.

It's time to turn up the voltage and electrify your brewing journey.

#### Guidelines

Oxygenation and/or rehydration may not be needed for generation 0 but may be beneficial. It is recommended to have a pitch rate of at least 30g per hl of wort for a standard gravity brew (1.045). Pitch rate is between 30-100g/hl of wort.

The intended fermentation temperature range is 31°C to 35°C [88°F to 95°F]

#### Ingredient Declaration

Yeast	98.8% to 99.2%
Emulsifier E491*	0.8% to 1.2% (*Sorbitan Monostearate)

#### Technical Specification

Yeast Strain	<i>Saccharomyces cerevisiae</i>
Dosage	30-100g/hl
Fermentation Temperature	31°C to 35°C 88°F to 95°F
ABV Tolerance	17%
Nitrogen Demand	Very High
Attenuation	76% to 80%
Flocculation	High
Weight	0.5 kg

#### Physical, Chemical and Microbiological properties

Parameter	Unit of Measure	Value	Specification Value
Appearance	-	Fine granules (typically 3mm particle size)	-
Powder flow characteristics	-	Free flowing granules	-
Odor	-	Weak characteristic yeast smell	Typical
Color	-	Light brown/beige	Light brown/beige
Solubility	-	Miscible in water & ethanol solutions	-
Dry matter	%	95.4	> 92
Moisture	%	4 to 6	< 8
Total Yeast Plate Count	Cfu/g	1.3 x 10 <sup>10</sup>	>10 <sup>10</sup>
Direct Live Cell Count	Cells/g	1.9 x 10 <sup>10</sup>	> 1.9 x 10 <sup>10</sup>
Lactic Acid Bacteria	Cfu/g	< 10	< 10 <sup>3</sup>
Acetic Acid Bacteria	Cfu/g	< 10	< 10 <sup>4</sup>
Wild Yeasts	Cfu/g	< 10	< 10 <sup>5</sup>
Moulds	Cfu/g	< 10	< 10 <sup>2</sup>
Coliforms	Cfu/g	< 10	< 10 <sup>2</sup>
<i>Escherichia coli</i>	Cfu/g	Absent in 1 g	Absent in 1 g
<i>Staphylococcus aureus</i>	Cfu/g	Absent in 1 g	Absent in 1 g
<i>Salmonella spp</i>	Cfu/g	Absent in 25 g	Absent in 25 g
<i>Listeria monocytogenes</i>	Cfu/g	Absent in 25 g	Absent in 25 g

#### Allergens\*

High Voltage Dehydrated Yeast does not contain added allergens.

\*EU Regulation 1169/2011 (Food Information Regulations) (Annex II)

#### GMO

High Voltage Dehydrated Yeast does not contain genetically modified organisms or materials.

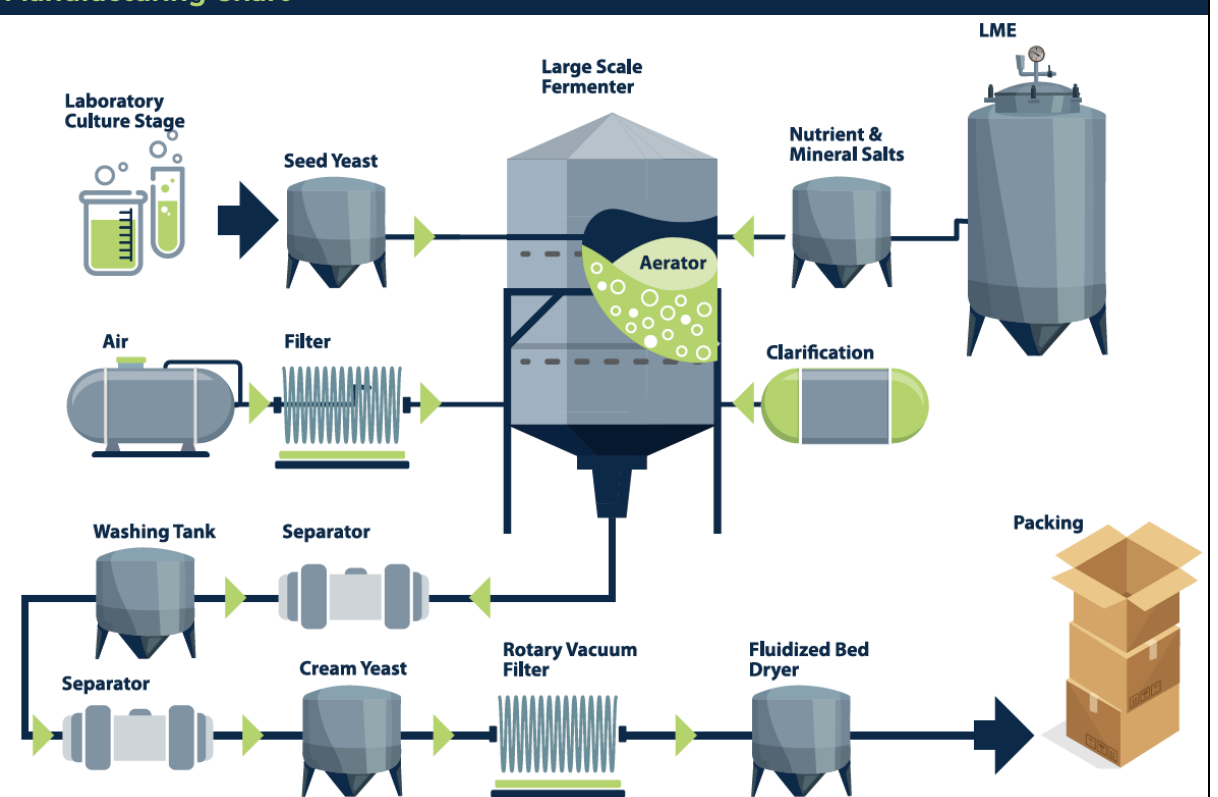
#### Packaging

High Voltage Dehydrated Yeast is available in 500g vacuum-packed silver foil packs. This material complies with relevant food-contact legislation, including, EU Regulation 1935/2004 (materials intended for contact with food), EU Regulation 1245/2020 (plastic materials intended for contact with food), EU Regulation 2023/2006 (GMP for materials intended for contact with food), and FDA CFR 21 (174-179) (USA).

#### Storage and Handling

Storage Conditions:	Store at cool to ambient temperatures (ideally 5°C to 15°C <b>or</b> 41°F to 59°F), dry, and well-ventilated environment.
Shelf life:	3 years from date of production, if vacuum seal is not broken, and if stored as outlined above.
Handling:	Once opened, re-seal to keep out air and water. For best results, store re-sealed packs in a refrigerator (0°C to 10°C <b>or</b> 32°F to 50°F) and use promptly. Please note expiry date on packs prior to opening.  <b>When added to water or a water solution, High Voltage Dehydrated Yeast releases CO<sub>2</sub>, especially on substrates high in sugars or starch. Ensure adequate ventilation to keep levels below advised exposure limits.</b> <i>Please request a Material Safety Data Sheet/MSDS for further advice.</i>

#### Manufacturing Chart



#### Beer Styles

**All Styles**

If you have any questions or concerns about our product please contact us at [lab@whclab.com](mailto:lab@whclab.com)