WHC Lab Ltd., Prospect Lower, Newcastle, Co. Wicklow, A63 H0K8, Ireland Issue 5 | 8 February 2024



Technical Data Sheet

Einstein-German Lager Yeast-Dehydrated

Product Description

Einstein Dehydrated Yeast is developed by WHC Lab.

Elevate your lager game with our Einstein German Lager yeast, meticulously crafted based on the trusted Weihenstephan strain. This yeast strain embodies the essence of German brewing precision, offering you a tool to create lagers that truly stand out. Renowned for its clean and crisp profile, it ensures that your beer's essence shines through with unrivaled clarity and purity.

Einstein is a master of subtlety, with low ester formation during fermentation, allowing the true character of your chosen malt and hops to take center stage. Additionally, its medium sulfur production is well within the desirable range, ensuring that your lagers maintain a flawless balance of flavors. This versatile bottom-fermenting yeast strain excels in cold fermentation, making it the perfect choice for brewers looking to create authentic and refreshing lagers across a spectrum of styles.

Whether you're crafting a traditional Pilsner, a robust Bock, or a crisp Helles, our Einstein yeast is your secret ingredient for consistency, quality, and unparalleled flavor. As you aim for excellence in your lager production, let Einstein guide you to brewing brilliance. Your choice of yeast can make all the difference, and Einstein is the path to lager perfection. Make your mark in the world of brewing with the scientific precision of Einstein.

Guidelines

Oxygenation and/or rehydration may not be needed for generation 0 but may be beneficial. lt

is recommended to have a pitch rate of at least 100g per hl of wort for a standard gravity brew (1.045). The pitch rate is between 100-150g/hl of wort.

The intended fermentation temperature range is 9°C to 16°C [49°F to 60°F].

Yeast	98.8% to 99.2%						
Emulsifier E491*	0.8% to 1.2% (*S	0.8% to 1.2% (*Sorbitan Monostearate)					
Technical Specification	Carachara						
Yeast Strain	Saccharomyce 100-150g/hl	s pastorianus					
Dosage	9°C to 16°C						
Fermentation Temperature	49°F to 60°F						
ABV Tolerance	12%						
Nitrogen Demand	Low						
Attenuation	76% to 80%						
Flocculation	Low						
Weight	0.5 kg						
Physical, Chemical and Mic							
Parameter	Unit of Measure	Value	Specification Valu				
Appearance	-	Fine granules (typically 3mm particle size)	-				
Powder flow characteristics	-	Free flowing granules	-				
Odor		Weak characteristic yeast	Turpical				
Juor	-	smell	Typical				
Color	-	Light brown/beige	Light				
		Miscible in water & ethanol	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 × 10 ¹⁰	>1010				
Direct Live Cell Count	Cells/g	1.9 x 10 ¹⁰	> 1.9 x 10 ¹⁰				
Lactic Acid Bacteria	Cfu/g	< 10	< 10 ³				
Acetic Acid Bacteria	Cfu/g	< 10	< 104				
Wild Yeasts	Cfu/g	< 10	< 105				
Moulds	Cfu/g	< 10	< 102				
Coliforms	Cfu/g	< 10	< 10 ²				
Escherichia coli	Cfu/g	Absent in 1 g	Absent in 1 g				
Staphylococcus aureus	Cfu/g	Absent in 1 g	Absent in 1 g				
Salmonella spp	Cfu/g	Absent in 25 g	Absent in 25 g				
Listeria monocytogenes	Cfu/g	Absent in 25 g	Absent in 25 g				
Packaging Einstein Dehydrated Yeast is Fhis material complies with 935/2004 (materials intende	available in 500g relevant food-cont ed for contact with act with food)), EU	vacuum-packed silver foil pac vacuum-packed silver foil pac tact legislation, including, EU F food), EU Regulation 1245/202 Regulation 2023/2006 (GMP fo 21 (174-179) (USA).	ks. Regulation 20 (plastic				
Storage and Handling							
Storage Conditions:		ambient temperatures (ideall					
_		[41°F to 59°F]), dry, and well-ventilated environment.					
Shelf life:	5	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 [32°F to 50°F]) and use promptly. Please note expiry date on packs prior to opening. Note: When added to water or a water solution, Einstein						
i analing.	Note: When dated to water or a water solution, Einstein Dehydrated Yeast releases CO ₂ , especially on substrates high in sugars or starch. Ensure adequate ventilation to keep levels below advised exposure limits. Please refer to the Material Safety Data Sheet/MSDS for further advice.						
Manufacturing Chart							
Laboratory Culture Stage	Large S Fermer	Scale	ME				
Seed Yeas		Aerator					
Air Filter		Clarification					

Flavour Chart

Separator

Washing Tank

Dark fruit Clean

Tropical Fruit

Separator

Cream Yeast

Banana Green Apple

Fluidized Bed

Dryer

Citrus

Candy Grassy

Packing



	•••							
LOW	HIGH	LOW						
Beer Styles								
German Lagers								

Rotary Vacuum Filter

If you have any questions or concerns about our product please contact us at <u>lab@whclab.com</u>



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