



" clyzo " - Monograph Comparison



AS PER CURRENT USP 2022/EP11/JP18

Product Name	D(-)-Fructose (USP, BP, Ph. Eur.) pure, pharma grade		Issue Date	March-23
Product Code	142728		Prepared by	Sr. Tech Lead
CAS NO.	57-48-7		Reviewed by	Manager Technical
Manufacturer Name	PanReac AppliChem		Version no.	CLYZO/PAN/142728/01

Sr. No.	Test	Manufacturer COA		Pharmacopeial Specifications	
		Complies USP, BP, Ph. Eur	USP 2022	EP Version 11.0	JP 18
1	Description	White crystalline powder	Colorless crystals or as a white, crystalline powder. It is odorless, and has a sweet taste.	White or almost white, crystalline powder.	Colorless to white, crystals or crystalline powder. It is odorless and has a sweet taste. It is hygroscopic.
2	Solubility	Soluble in water	Freely soluble in water; soluble in alcohol and in methanol.	Very soluble in water, soluble in ethanol (96 %).	It is very soluble in water, sparingly soluble in ethanol (95) and practically insoluble in diethyl ether.
3	Identification 1	Passes The Test	The Infrared absorption spectrum obtained with sample should be concordant with spectrum obtained with Fructose reference standard/ working standard	Not mentioned	The Infrared absorption spectrum obtained with sample should be concordant with spectrum obtained with Fructose reference standard/ working standard
4	Identification 2	Passes The Test	Not mentioned	Should comply by red precipitate formation	Should comply by red precipitate formation
5	Identification 3	Passes The Test	Not mentioned	By TLC, the principal spot in the chromatogram obtained with the test solution is similar in position, colour and size to the principal spot in the chromatogram obtained with reference solution	Not mentioned
6	Identification 4	Passes The Test	Not mentioned	Should comply by brown colour formation	Not mentioned
7	Identification 5	Not mentioned	Not mentioned	Should comply by red colour formation	Not mentioned
8	pH	5.9 to 6.4	Not mentioned	Not mentioned	Between 4.0 and 6.5
9	Clarity and colour of Solution	Passes The Test	The Sample solution should not more intensely coloured than standard solution.	Sample solution should be clear and colourless	The solution should be clear and has no more color than the control solution
10	Acidity/Alkalinity	Passes The Test	NMT 0.50 ml of 0.02M NaOH is required	NMT 0.15 ml of 0.1 M NaOH is required to change the colour of the indicator to pink	After addition of 0.60 ml of 0.01 M NaOH a red color should be developed
11	Specific optical rotation	Between - 93.5° and - 91.0° (anhydrous substance).	Not mentioned	Between - 93.5° and - 91.0° (anhydrous substance).	Not mentioned
12	Water Content	NMT 0.5%	Not mentioned	NMT 0.5%	Not mentioned
13	Foreign sugars	Passes The Test	Not mentioned	Any opalescence in the solution should not more intense than that in a mixture of 1 ml of the initial solution and 9 ml of water	Not mentioned
14	Residue on Ignition	NMT 0.1%	NMT 0.5%	Not mentioned	NMT 0.1%
15	Sulfated ash	Not mentioned	Not mentioned	NMT 0.1%	Not mentioned
16	Loss on Drying	NMT 0.5%	NMT 0.5%	Not mentioned	NMT 0.5%
17	5-Hydroxymethylfurfural and related compounds	Passes The Test	A slight pink color may develop, but no cherry red color should appears immediately.	Absorbance should ne NMT 0.32.	Absorbance should ne NMT 0.32.
18	Chloride	NMT 0.005%	NMT 0.018%	Not mentioned	NMT 0.018%
19	Sulfated	NMT 0.005%	NMT 0.025-%	Not mentioned	NMT 0.024%
20	Arsenic	Not mentioned	nmt 1 ppm	Not mentioned	NMT 1.3 ppm
21	Calcium & Magnesium	NMT 0.005%	NMT 0.005%	Not mentioned	The solution should be clear.

22	Sulfite	Not mentioned	Not mentioned	Not mentioned	The color of the solution should be yellow.
23	Heavy metals	Not mentioned	Not mentioned	Not mentioned	NMT 4 ppm
24	Barium	Passes The Test	Not mentioned	Not mentioned	Not mentioned
25	Calcium	NMT 0.002%	Not mentioned	Not mentioned	Not mentioned
26	Magnesium	NMT 0.002%	Not mentioned	Not mentioned	Not mentioned
27	Lead	NMT 0.00005%	Not mentioned	Not mentioned	Not mentioned
28	Assay (Dried basis)	Between 98.0% and 102.0%	Between 98.0% and 102.0%	Not mentioned	NLT 98.0%
29	Elemental Impurities		Not mentioned	Not mentioned	Not mentioned
	Cd	NMT 0.5 ppm			
	Pb	NMT 0.5 ppm			
	As	NMT 1 ppm			
	Hg	NMT 1.5 ppm			
	CO	NMT 5 ppm			
	V	NMT 10 ppm			
	Ni	NMT 20 ppm			
	Tl	NMT 5 ppm			
	Au	NMT 10 ppm			
	Pd	NMT 10 ppm			
	Ir	NMT 10 ppm			
	Os	NMT 10 ppm			
	Rh	NMT 10 ppm			
	Ru	NMT 10 ppm			
	Se	NMT 15 ppm			
	Ag	NMT 15 ppm			
	Pt	NMT 10 ppm			
Li	NMT 55 ppm				
Sb	NMT 120 ppm				
Ba	NMT 140 ppm				
Mo	NMT 25 ppm				
Cu	NMT 250 ppm				
Sn	NMT 600 ppm				
Cr	NMT 25 ppm				
30	Residual solvents	Passes The Test	Not mentioned	Not mentioned	Not mentioned
	Storage	Store at room temperature	Preserve in well-closed containers.	Not mentioned	Tight containers

Note - If you need any additional testing, you may use our Additional Testing Feature on the product page or contact your Clyzo representative.

Disclaimer - The information above is solely for your consideration. We do not recommend or affirm the suitability for any specific end use. We suggest the users should research & verify the specifications in accordance with their intended usage.