



" clyzo " - Monograph Comparison



AS PER CURRENT USP 2022/EP11/JP18

Product Name	Castor Oil (BP, Ph. Eur.) pure, pharma grade	 PanReac AppliChem <small>ITW Reagents</small>	Issue Date	March-23
Product Code	144564		Prepared by	Sr. Tech Lead
CAS NO.	8001-79-4		Reviewed by	Manager Technical
Manufacturer Name	PanReac AppliChem		Version no.	CLYZO/PAN/144564/01

Sr. No.	Test	Manufacturer COA		Pharmacopeial Specifications	
		Complies BP, Ph. Eur	USP 2022	EP Version 11.0	JP 18
1	Description	Yellow viscous liquid	Pale yellowish or almost colorless, transparent, viscid liquid. It has a faint, mild odor; is free from foreign and rancid odor; and has a bland, characteristic taste.	Clear, almost colourless or slightly yellow, viscous, hygroscopic liquid. Relative density about 0.958, Refractive index about 1.479, Viscosity about 1000 mPa-s	Product Not Official in Japanese Pharmacopoeia
2	Solubility	Insoluble in water	Soluble in alcohol. Miscible with dehydrated alcohol, with glacial acetic acid, with chloroform, and with ether.	Slightly soluble in light petroleum, miscible with ethanol (96 per cent) and with glacial acetic acid.	
3	Identification 1	Passes The Test	Distinction from Most Other Fixed Oils:It is only slightly soluble in solvent hexane (distinction from most other fixed oils), but it yields a clear liquid with an equal volume of alcohol (foreign fixed oils)	Sample solution should be clear	
4	Identification 2	Passes The Test	Identification of Refined Castor Oil or Virgin Castor Oil by Using Ultraviolet Absorption: Refined Castor Oil:The absorbance is within the range of 0.7–1.5; Virgin Castor Oil:The absorbance is NMT 0.7	Should comply by specific absorbance test	
5	Identification 3	Passes The Test	NA	A red colour should developes	
6	Identification 4	Passes The Test	Should comply by fatty acid composition test	Should comply by fatty acid composition test	
7	Appearance	Passes The Test	NA	The sample should be clear and not more intensely coloured than reference solution BY3 or Y3	
8	Specific Gravity	Passes The Test	Between 0.957 and 0.961	NA	
9	Optical Rotation	Between + 3.5° to + 6.0°.	Not mentioned	Between + 3.5° to + 6.0°.	
10	Specific absorbance	About 0.7	Not mentioned	Between 0.7 and 1.5 at absorption maximum at 270 nm	
11	Acid Value	NMT 1.5	NMT 2.0	NMT 0.8	
12	Hydroxyl Value	Not mentioned	Between 160 and 168	NMT 160	
13	Peroxide value	NMT 5.0	NMT 10.0	NMT 5.0	
14	Unsaponifiable matter	NMT 0.8%	NMT 0.8%	NMT 0.8%	
15	Oil obtained by extraction & adulteration	Not mentioned	Not mentioned	The sample solution is less intensely coloured than a freshly prepared standard mixture	
16	Composition of fatty acids	Palmitic acid: NMT 2.0 % Stearic acid: NMT 2.5 % Oleic acid and isomer: 2.5% to 6.0 % Linoleic acid: 2.5 % to 7.0 % Linolenic acid: NMT 1.0 % cs 11-Eicosenoic acid: NMT 1.0 % Ricinoleic acid: 85.0 % to 92.0 % cis-11-Octadecenoic acid or any other unidentified fatty acid- NMT 1.0 %.	Palmitic acid: NMT 2.0 % Stearic acid: NMT 2.5 % Oleic acid and isomer: 2.5% to 6.0 % Linoleic acid: 2.5 % to 7.0 % Linolenic acid: NMT 1.0 % cs 11-Eicosenoic acid: NMT 1.0 % Ricinoleic acid: 85.0 % to 92.0 % cis-11-Octadecenoic acid or any other unidentified fatty acid- NMT 1.0 %.	Palmitic acid: NMT 2.0 % Stearic acid: NMT 2.5 % Oleic acid and isomer: 2.5% to 6.0 % Linoleic acid: 2.5 % to 7.0 % Linolenic acid: NMT 1.0 % cs 11-Eicosenoic acid: NMT 1.0 % Ricinoleic acid: 85.0 % to 92.0 % cis-11-Octadecenoic acid or any other unidentified fatty acid- NMT 1.0 %.	
17	Saponification value	Between 176 and 187	Not mentioned	Not mentioned	
18	Iodine value	Between 82 and 90	Not mentioned	Not mentioned	
19	Refractive Index	Between 1.477 and 1.481	Not mentioned	Not mentioned	
20	Foreign fatty substances	Passes The Test	Not mentioned	Not mentioned	
21	Water	NMT 0.3%	NMT 0.3%	NMT 0.3%	

22	Assay	NLT 99.5%	NLT 90.0% of the triglyceride of ricinoleic acid	NA
23	Elemental Impurities		Not mentioned	Not mentioned
	Cd	NMT 0.5 ppm		
	Pb	NMT 5 ppm		
	As	NMT 1.5 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			
24	Residual solvents	Passes The Test	Not mentioned	Not mentioned
	Storage	Storage below 25°C. Storage away from direct light.	Preserve in tight containers, avoid exposure to excessive heat	In an airtight, well-filled container, protected from light.
Note - If you need any additional testing, you may use our Additional Testing Feature on the product page or contact your Clyzo representative.				
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