



" clyzo " - Monograph Comparison



AS PER CURRENT USP 2022/EP11/JP18

Product Name	Copper(II) Sulfate 5-hydrate (BP, Ph. Eur.) pure, pharma grade		Issue Date	March-23
Product Code	141270		Prepared by	Sr. Tech Lead
CAS NO.	7758-99-8		Reviewed by	Manager Technical
Manufacturer Name	PanReac AppliChem		Version no.	CLYZO/PAN/141270/01

Sr. No.	Test	Pharmacopeial Specifications			
		Manufacturer COA <i>Complie, BP, Ph. Eur.</i>	USP 2022	EP Version 11.0	JP 18
1	Descripion	crystals, Blue	Deep blue, triclinic crystals or blue, crystalline granules or powder. It effloresces slowly in dry air. Its solutions are acid to litmus	Blue, crystalline powder or transparent, blue crystals.	
2	Solubility	Soluble in water	Very soluble in boiling water; freely soluble in water and in glycerin; slightly soluble in alcohol	Freely soluble in water, soluble in methanol, practically insoluble in ethanol (96 per cent)	
3	Identification 1	Passes test	1.After addition of barium chloride TS a white precipitate which is insoluble in HCl and HNO3 should be formed 2.With lead acetate TS, a white precipitate which is soluble in ammonium acetate TS should be formed.3. With HCl no precipitate should be produced (distinction from thiosulfates)	Should comply by a blue precipitate formation which dissolves on addition of ammonia and blue colored solution should be produced	
4	Identification 2	Passes test	1. Should comply by a red film formation on a bright untarnished surface of metallic iron.2. Should comply by a bluish precipitate and then blue colored solution by addition of 6N ammonium hydroxide 3. After addition of potassium ferrocyanide TS, a reddish-brown precipitate should be formed which should be insoluble in diluted acids	Should comply by loss on drying test	
5	Identification 3	Passes test	Not mentioned	Should comply by a white precipitate formation	
6	Appearance of solution	Passes test	Not mentioned	Sample solution should be clear	
7	Chloride	NMT 0.01%	Not mentioned	NMT 100 ppm	
8	Insoluble matter in H2O	NMT 0.025 %	Not mentioned	Not mentioned	
9	Sodium	NA	NMT 0.02%	Not mentioned	
10	Potassium	NA	NMT 0.01%	Not mentioned	
11	Calcium	NA	NMT 0.005%	Not mentioned	
12	Iron	NMT 0.01 %	NMT 0.003%	NMT 100 ppm	
13	Nickel	NA	NMT 0.005%	Not mentioned	

Product Not Official in Japanese Pharmacopoeia

14	Loss on Drying	Between 35.0% and 36.5 %	Between 33.0% and 36.5%	Between 35.0% and 36.5%
15	Assay	Between 99.0% and 100.5%	Between 98.5% and 100.5%	Between 99.0% and 101.0%
16	Elemental impurities		Not mentioned	Not mentioned
	Cd	NMT 50 ppm		Not mentioned
	Pb	NMT 20 ppm		NMT 20 ppm
	As	NMT 1.5 ppm		Not mentioned
	Hg	NMT 1.5 ppm		Not mentioned
	Co	NMT 1 ppm		NMT 1 ppm
	V	NMT 10 ppm		Not mentioned
	Ni	NMT 20 ppm		NMT 20 ppm
	Tl	NMT 50 ppm		Not mentioned
	Au	NMT 10 ppm		Not mentioned
	Pd	NMT 10 ppm		Not mentioned
	Ir	NMT 10 ppm		Not mentioned
	Os	NMT 10 ppm		Not mentioned
	Rh	NMT 10 ppm		Not mentioned
	Ru	NMT 10 ppm		Not mentioned
	Se	NMT 15 ppm		Not mentioned
	Ag	NMT 15 ppm		Not mentioned
	Pt	NMT 10 ppm		Not mentioned
	Li	NMT 55 ppm		Not mentioned
	Sb	NMT 120 ppm		Not mentioned
Ba	NMT 140 ppm	Not mentioned		
Mo	NMT 25 ppm	Not mentioned		
Sn	NMT 600 ppm	Not mentioned		
Cr	NMT 25 ppm	Not mentioned		
17	Residual Solvent	Passes test	Not mentioned	Not mentioned
	Storage	Keep containers tightly closed in a dry, cool & well-ventilated place. Keep out of the reach of children.	Preserve in Tight containers.	Not mentioned