



" clyzo " - Monograph Comparison



AS PER CURRENT USP 2022/EP11/JP18

Product Name	Dimethyl Sulfoxide (USP, BP, Ph. Eur.) pharma grade		Issue Date	March-23
Product Code	191954		Prepared by	Sr. Tech Lead
CAS NO.	67-68-5		Reviewed by	Manager Technical
Manufacturer Name	PanReac AppliChem		Version no.	CLYZO/PAN/191954/01

Sr. No.	Test	Pharmacopeial Specifications			
		Manufacturer COA <i>Complies USP, BP, Ph. Eur</i>	USP 2022	EP Version 11.0	JP 18
1	Description	Clear, colorless liquid, Melts at about 18.4°C. Boils at about 189°C	Clear, colorless, odorless, hygroscopic liquid. Melts at about 18.4°C. Boils at about 189°C	Colourless liquid or colourless crystals, hygroscopic	Product Not Official in Japanese Pharmacopoeia
2	Solubility	Miscible with water and ethanol, Practically insoluble in acetone, alcohol, benzene, chloroform and ether	Soluble in water; practically insoluble in acetone, in alcohol, in benzene, in chloroform, and in ether	Miscible with water and with ethanol (96 %)	
3	Identification 1	The Infrared absorption spectrum obtained with sample should be concordant with spectrum obtained with Dimethyl sulfoxide reference standard/working standard.	The Infrared absorption spectrum obtained with sample should be concordant with spectrum obtained with Dimethyl sulfoxide reference standard/working standard.	The Infrared absorption spectrum obtained with sample should be concordant with spectrum obtained with Dimethyl sulfoxide reference standard/working standard.	
4	Identification 2	Passes The Test	A deep violet, crystalline solid should be obtained, which is soluble in chloroform, yielding a red solution.	Should comply with the relative density tests	
5	Identification 3	Passes The Test	Not mentioned	Should comply with the refractive index tests	
6	Identification 4	Passes The Test	Not mentioned	Should comply by colour change to greenish-yellow	
7	Specific Gravity/relative density	Between 1.095 and 1.101 (at 25°C) Between 1.10 and 1.104 (at 20°C)	Between 1.095 and 1.101	Between 1.10 and 1.104	
8	Refractive Index	Between 1.4755 and 1.4775 (at 25°C) Between 1.478 and 1.480 (at 20°C)	Between 1.4755 and 1.4775	Between 1.478 and 1.480	
9	Freezing point	NLT 18.3 °C	Not mentioned	NLT 18.3 °C	
10	Acidity	Passes The Test	NMT 5.0 ml of 0.01 N NaOH is consumed	NMT 5.0 ml of 0.01 M NaOH is required to produce a pink colour.	
11	Ultraviolet Absorbance	Passes The Test. Absorbance at 275 nm is NMT 0.20, Absorbance at 285 nm is NMT 0.20, Absorbance at 295 nm is NMT 0.20, the absorbance ratios, A285/A275 and A295/A275, should NMT 0.65 and 0.45, respectively. Should not show absorption maxima	Absorbance at 275 nm is NMT 0.20, and the absorbance ratios, A285/A275 and A295/A275, should NMT 0.65 and 0.45, respectively. Should not show absorption maxima	Absorbance NMT 0.30 at 275 nm; NMT 0.20 at both 285 nm and 295 nm. The substance should not show absorption maximum between 270 nm and 350 nm.	
12	Water	NMT 0.1%	NMT 0.1%	NMT 0.2%	
13	Substances darkened by KOH	Passes test	Not mentioned	Not mentioned	
14	Non volatile residue	NMT 0.01%	NMT 0.01%	Not mentioned	
15	Dimethyl Sulfone	NMT 0.03%	Not mentioned	Not mentioned	
16	Related compounds	Unspecified impurity: NMT 0.10% Total impurities: NMT 0.15%	Total impurities: NMT 0.1%	Unspecified impurity: NMT 0.10% Total impurities: NMT 0.15%	
17	Assay (Anhydrous basis)	NLT 99.9%	NLT 99.9%	Not mentioned	
	Elemental Impurities		Not mentioned	Not mentioned	
	Cd	NMT 0.5 ppm			
	Pb	NMT 0.5 ppm			
	As	NMT 1.5 ppm			
	Hg	NMT 1.5 ppm			
	CO	NMT 2 ppm			
	V	NMT 10 ppm			
	Ni	NMT 10 ppm			
	Tl	NMT 0.8 ppm			

18	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		
19	Residual solvents	Passes The Test	Not mentioned	Not mentioned
	Storage	Storage away from direct light.	Preserve in tight, light-resistant containers	In an airtight, glass 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.

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.