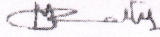


CERTIFICATE OF ANALYSIS

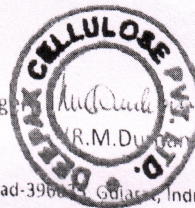
<b>Product Name</b>	<b>Hypromellose Phthalate (HPMCP-HP-55)--- USP/NF</b>		<b>COA No.</b> 299/22
Grade	DEEPCOAT HP-55	HPMC-P ; Hydroxypropyl methyl cellulose phthalate	
Substitution Type	200731		
Code	DC 10	Date of Mfg	OCT. - 2022
Nominal Phthalyl Group Content	31 %	Date of Retest	SEP. - 2025
Viscosity Type	40 cPs / cSt (80%-120%)	Date of Analysis	09-10-2022
Batch No.	299/22	Quantity, kgs	500
CAS No	9050-31-1	Sample Qty	5 x 20g

Test Item	Unit	USP/NF Specs	Test Result
Description	---	White powder or granules	White powder
Solubility	---	Practically insoluble in water, in dehydrated alcohol, and in hexane. Produces a viscous clear solution in mixture of (w/w) dehydrated alcohol and acetone (1:1) or methanol & methylene chloride (1:1). Dissolves in 1N sodium hydroxide.	Practically insoluble in water, in dehydrated alcohol, and in hexane. Produces a viscous clear solution in mixture of (w/w) dehydrated alcohol and acetone (1:1) or methanol & methylene chloride (1:1). Dissolves in 1N sodium hydroxide.
Identification	---	By IR: The Infrared absorption spectrum of substance being examined should be concordant with the IR spectrum obtained from USP Hypromellose Phthalate RS. Do not dry.	By IR: The Infrared absorption spectrum of substance being examined is in concordant with the IR spectrum obtained from USP Hypromellose Phthalate RS.
Phthalyl Group Content (Assay)	%	27.0% to 35.0% of Phthalyl groups on the anhydrous basis (For HP 55 grade)	30.5
Residue on Ignition (Impurity)	%	Not more than 0.20%	0.11
Chloride (Impurity)	%	A-50 ml portion of the sample solution shows no more chloride than the standard solution (0.07%).	A-50 ml portion of the sample solution shows no more chloride than the standard solution (0.07%).
Heavy Metals (Impurity)	µg/g	Not more than 10	Less than 10
Limit of Free Phthalic Acid (Impurity)	%	Not more than 1.0%	0.47
Water Determination	%	Not more than 5.0%	1.87
Viscosity-Capillary methods @ 20°C	cPs	Not less than 80% and Not more than 120% of that indicated by the label (32 – 48 cPs)	46.6
Residual Solvent*	ppm	class 1 & 2 solvent	Not used in process
		Acetic acid : Not more than 5000 ppm	217

- \* only class 3 solvent – acetic acid -present –less than 5000 ppm
- Above sample complies with prescribed standards and Methods as per USP 41/NF36.
- Store in airtight containers.

Analysed By:   
 (M.B.Patel/ K.M. Patel)

QA Manager



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