



Univar Usa Inc
8500 W 68Th St Ste 2
Bedford Park IL 60501-1850

Certificate of Analysis Material No: 16155481

Date: 04 Aug 2023
Our ref. no.: 43075290 70
Your ref. 4526364826

Material:	34516	METHOCEL(TM) E4M Premium
Customer material no.:	16155481	Hydroxypropyl Methylcellulose
Batch No.:	2464378987	Retest date: 02 Mar 2028
Quantity:	11 DR	Production date: 04 Mar 2023

Test	Result	Specification	Unit	Reference
Apparent Viscosity 1)	3623	2663 - 4970	mPa sec	USP/EP/JP/CHP
Loss on drying	1.0	<= 5.0	%	USP/EP/JP/CHP
Residue on ignition	0.2	<= 1.5	%	USP/JP/CHP
Sulphated ash	0.2	<= 1.5	%	CURRENT USP/EP/JP
pH 2)	5.9	5.0 - 8.0		USP/EP/JP/CHP
Methoxyl content	29.0	28.0 - 30.0	%	USP/EP/JP/CHP
Hydroxypropoxyl content	9.2	7.0 - 12.0	%	USP/EP/JP/CHP
Opalescence	Passes test	Passes test		CURRENT EP
Colour Evaluation 3)	Passes test	Passes test		CURRENT EP

Comments

The material property data reported in this COA are representative values obtained in laboratory tests conducted on a product sample taken from the batch produced. The undersigned certifies, that at the time of issuance of this COA, that the material property data reported are the results of the tests conducted. It is the recipient's sole responsibility to determine the suitability and legality of its proposed use of the Products.

If provided in any language other than English, the original English version will control, and the undersigned hereby disclaims responsibility for any errors caused by translation.

It is hereby certified that the material indicated above has been manufactured in accordance with excipient and food additive GMPs, was inspected and tested in accordance with current USP/Ph.Eur./JP/ChP/E464/JECFA/FCC for Hypromellose/Hydroxypropyl Methylcellulose and, unless agreed otherwise, conforms in all respects to the specification relevant thereto.



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Hydroxypropyl Methylcellulose
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This batch, based on audit testing and process control, is certified to be NMT 10 mg/kg heavy metals (as Pb) and also meets all specification requirements for harmonized identification tests, residual solvents and microbiological limits.

- 1) Measurement conditions: 2% in water @ 20degC
- 2) Measurement conditions: 2%in water
- 3) Measurement conditions: Solution Color

This certificate is generated automatically

Kyle Rechsteiner

Quality Control Department