



Date: 02/09/2012
FILE COPY

The Dow Chemical Company
Certificate of Analysis

Page 1
Shipped: 02/09/2012

Fax: COA ARCHIVE

Material: METHOCEL* F50 Premium LV
Hydroxypropyl Methylcellulose

Spec: 00053963-S

Batch:

Mfgd: 12/19/2011

Retest Date:12/18/2013

Ship from: THE DOW CHEMICAL COMPANY BAY CITY MI UNITED STATES

It is hereby certified the material indicated above has been manufactured in accordance with the FDA cGMPs, Kosher guidelines, was inspected and tested in accordance with the conditions and the requirements of current USP, EP and JP for Hypromellose as well as the current specific purity criteria for the food additive Hydroxypropyl Methyl Cellulose (E464) and unless agreed otherwise conforms in all respects to the specification relevant thereto.

Feature	Units	Results		Limits		Method
		ZL19012N21	Minimum	Maximum		
Apparent Viscosity 2% in water, @ 20degC	mPa.s	51	40	60	Current	USP/EP/JP
Loss on Drying	%	1.6	----	5.0	Current	USP/EP/JP
Residue on Ignition	%	0.6	----	1.5	Current	USP/JP
Ash, Sulfated	%	0.6	----	1.5	Current	EP
pH, 2% in Water	-	7.3	5.0	8.0	Current	USP/EP/JP
Assay, Methoxyl	%	28.4	27.0	30.0	Current	USP/EP/JP
Assay, Hydroxypropoxyl	%	6.2	4.0	7.5	Current	USP/EP/JP
Appearance		Passes			Current	EP
Opalescence						
Appearance solution color		Passes			Current	EP

This Batch, based on audit testing and process control, is certified to be NMT 20 ppm heavy metals (as Pb) and also meets all specification requirements for harmonized identification tests, residual solvents and microbiological limits.

Batch (Lot) Number manufacture location:2N = Midland, MI; ND = Bomlitz, Germany, 24 = Plaquemine, LA; 07 = Stade, Germany

Julie Wright, FORTEFIBER, METHOCEL Quality Systems Specialist
For inquiries please contact Customer Service at 1-800-232-2436 (USA).

* Trademark of The Dow Chemical Company