


# Kalchem International

## Chemicals & Compounding Supplies

 THE DOW CHEMICAL COMPANY 298900 #102		UNIVAR USA INC BEDFORD PARK BRANCH 8500.W 68TH ST BEDFORD PARK IL 60501-1850  Ship From: BAY CITY Whse BAY CITY Michigan, United States			
<b>Certificate of Analysis</b>  Product Number 00000016538 Product Name METHOCEL™ E4M Premium Hydroxypropyl Methylcellulose Delivery No. 804298706 / 000070 Order Number 102733080 Shipping Units 80.000 BAG Date Shipped 2015-01-26 (YYYY-MM-DD) Shipment No. 24457688		<b>Customer Information</b>  Customer Name UNIVAR USA INC Customer PO number CB-064682 Customer Product Code 00016538  Container ID 5390			
Batch Number D180F18011 Retest Date 2017-01-07 (YYYY-MM-DD) Manufacturing Date 2015-01-08 (YYYY-MM-DD) Quantity 80.000 BAG Net Weight 4000.071 LB / 1814.400 KG Manufacturing Plant MIDLAND Methocel Country of Origin US Country of Origin Name 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.			
Test	Unit	Lower Limit	Upper Limit	Value	Method
Apparent Viscosity BROOKFIELD 2% IN WATER, @ 20DEGC	mPa.s	2663	4970	3756	Current USP/EP/JP
Loss on Drying	%		5.0	1.4	Current USP/EP/JP
Residue on Ignition	%		1.5	0.4	Current USP/JP
Ash, Sulfated	%		1.5	0.4	Current USP/JP
pH, 2% in Water		5.0	8.0	6.0	Current EP
Assay, Methoxyl	%	28.0	30.0	28.8	Current USP/EP/JP
Assay, Hydroxypropoxyl	%	7.0	12.0	9.4	Current USP/EP/JP
Appearance Opalescence		-	-	Pass	Current USP/EP/JP
Appearance Solution Color		-	-	Pass	Current EP

This batch, based on audit testing and process control, is certified to

**Kalchem International, Inc**  
 224 South Main Street - Lindsay, OK 73052  
 Toll Free 888-298-9905 | FAX: 405-756-2373

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UNIVAR USA INC  
BEDFORD PARK BRANCH  
8500.W 68TH ST  
BEDFORD PARK IL 60501-1850

Ship From: BAY CITY Whse  
BAY CITY  
Michigan, United States

be NMT 20 ppm heavy metals (as Pb) and also meets all specification requirements for harmonized identification tests, residual solvents and microbiological limits.

*Shari Workentine*

Shari Workentine  
Dow Pharma & Food Solutions Quality System Specialist

For inquiries please contact Customer Service or local sales

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