

METAPHARMACEUTICAL



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06/06/2024

Date 2024-02-13 (YYYY-MM-DD) Time 12:36:02 (Greenwich Mean Time) Page 1 of 2

<div style="display: flex; justify-content: space-between; align-items: center;"> </div> <p>DOW FRANCE S.A.S.</p> <div style="text-align: center;"> </div>	<p>Ship From: Antwerp H Essers 1097 Whse Wilrijk Belgium</p>																																																																																																																														
<p style="text-align: center;">Certificate of Analysis</p> <p>Product Number 00000166998</p> <p>Product Name CARBOWAX™ SENTRY™ Polyethylene Glycol 4000 NF Powder (Uninhibited); Macrogol 4000 Ph. Eur.</p> <p>Delivery No. 827046730 / 000010</p> <p>Order Number 115679021</p> <p>Date Shipped 2024-02-13 (YYYY-MM-DD)</p> <p>Shipment No. 44089159</p>	<p style="text-align: center;">Customer Information</p> <p>Customer Product Code 000000000001015106</p> <p>Customer Product Name CARBOWAX SENTRY PEG 4000 U PDR 22.68K BG</p> <p>Container ID KCF631</p> <p>Vehicle# kcf631</p> <p>Specification Number 000000085563</p>																																																																																																																														
<p>Batch Number D684NAVEG1</p> <p>Retest Date 2026-10-31 (YYYY-MM-DD)</p> <p>Manufacturing Date 2023-10-31 (YYYY-MM-DD)</p> <p>It is hereby certified that the material indicated above has been manufactured in accordance with current Good Manufacturing Practices Guide for Active Pharmaceutical Ingredients-ICH Q7 was inspected and tested in accordance with the conditions and the requirements of current monographs for National Formulary - Polyethylene Glycols; European Pharmacopoeia -MACROGOLS. The manufacturing facility and this product have been Kosher certified.</p>																																																																																																																															
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Test</th> <th>Unit</th> <th>Lower Limit</th> <th>Upper Limit</th> <th>Value</th> <th>Method</th> </tr> </thead> <tbody> <tr> <td>Mole Weight, Average</td> <td></td> <td>3600</td> <td>4400</td> <td>4000</td> <td>Current NF</td> </tr> <tr> <td>Ethylene Oxide</td> <td>ppm</td> <td>-</td> <td>10</td> <td>0</td> <td>Current NF</td> </tr> <tr> <td>1,4-Dioxane</td> <td>ppm</td> <td>-</td> <td>10</td> <td>0</td> <td>Current NF</td> </tr> <tr> <td>pH</td> <td></td> <td>4,5</td> <td>7,5</td> <td>6,6</td> <td>Current NF</td> </tr> <tr> <td>25degC 5% aqueous solution</td> <td></td> <td></td> <td></td> <td></td> <td>Current NF</td> </tr> <tr> <td>Viscosity</td> <td>cSt</td> <td>110</td> <td>158</td> <td>135</td> <td>Current NF</td> </tr> <tr> <td>210degF</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Q Comp & Color of Soln</td> <td>-</td> <td>-</td> <td>-</td> <td>Pass</td> <td>Current NF</td> </tr> <tr> <td>5g/50mL-less than slight haze</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Q Residue on Ignition</td> <td>-</td> <td>-</td> <td>-</td> <td>Pass</td> <td>Current USP</td> </tr> <tr> <td>less than 0.1%</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Appearance</td> <td>-</td> <td>-</td> <td>-</td> <td>Pass</td> <td>Current EP</td> </tr> <tr> <td>white solid with a waxy appearance</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Identification: a</td> <td>-</td> <td>-</td> <td>-</td> <td>Pass</td> <td>Current EP</td> </tr> <tr> <td>Acidity</td> <td>-</td> <td>-</td> <td>-</td> <td>Pass</td> <td>Current EP</td> </tr> <tr> <td>less than 0.1mL of 0.1M NaOH</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Viscosity</td> <td>mPa.s</td> <td>110</td> <td>170</td> <td>124</td> <td>Current EP</td> </tr> <tr> <td>20degC 50% AQ</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Hydroxyl Value</td> <td></td> <td>25</td> <td>32</td> <td>28</td> <td>Current EP</td> </tr> <tr> <td>Ethylene Oxide</td> <td>ppm</td> <td>-</td> <td>1</td> <td>0</td> <td>Current EP</td> </tr> </tbody> </table>		Test	Unit	Lower Limit	Upper Limit	Value	Method	Mole Weight, Average		3600	4400	4000	Current NF	Ethylene Oxide	ppm	-	10	0	Current NF	1,4-Dioxane	ppm	-	10	0	Current NF	pH		4,5	7,5	6,6	Current NF	25degC 5% aqueous solution					Current NF	Viscosity	cSt	110	158	135	Current NF	210degF						Q Comp & Color of Soln	-	-	-	Pass	Current NF	5g/50mL-less than slight haze						Q Residue on Ignition	-	-	-	Pass	Current USP	less than 0.1%						Appearance	-	-	-	Pass	Current EP	white solid with a waxy appearance						Identification: a	-	-	-	Pass	Current EP	Acidity	-	-	-	Pass	Current EP	less than 0.1mL of 0.1M NaOH						Viscosity	mPa.s	110	170	124	Current EP	20degC 50% AQ						Hydroxyl Value		25	32	28	Current EP	Ethylene Oxide	ppm	-	1	0	Current EP
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1,4-Dioxane	ppm	-	10	0	Current EP
Water	WT%	-	1,0	0,1	Current EP
Q Identification: b, c	-	-	-	Pass	Current EP
Q Appearance of Soln	-	-	-	Pass	Current EP
Q Freezing Point between 53 - 59 deg C	-	-	-	Pass	Current EP
Q Reducing Substances	-	-	-	Pass	Current EP
Q Formaldehyde less than 15 ppm	-	-	-	Pass	Current EP
Q Sulphated Ash less than 0.2%	-	-	-	Pass	Current USP
Appearance Neat	-	-	-	Pass	DOWM 101924
BHT	ppm	-	20	6	DOWM 102906
Color, Pt-Co 25% aqueous solution	-	-	18	3	ASTM D5386
Diethylene Glycol	ppm	-	300	< 21	DOWM 102369
Ethylene Glycol	ppm	-	300	< 27	DOWM 102369
2 Acetic Acid less than 5000 ppm	-	-	-	Pass	Current EP
<p>2:Ph. Eur. 2.4.24 ID and Control of Residual Solvents Class 3 Q:Analyzed Quarterly Original Manufacture/Location of Manufacture: D684=The Dow Chemical Company, St. Charles Operations, E-Park Plant, 355 Highway 3142, Hahnville, LA 70057 (previously known as Taft), Phone: 800-331-6451 Bulk SENTRY- PEGs: The Dow Chemical Company, St. Charles Operations, E-Park Plant Plant Packaged SENTRY- PEGs: Manufacturing: The Dow Chemical Company, St. Charles Operations, E-Park Plant; Packaging: The Dow Chemical Company St. Charles Operations, E-Park Plant For inquiries please contact Customer Service or local sales © = Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow</p>					