



Farm to Vape, LLC

**Certificate of Analysis**

Product Number 00000178972  
Product Name  
Farm to Vape Thinner Polyethylene Glycols  
300 & 400; acrogol 300 & 400 Ph. Eur.

Batch Number D210J24KC2  
Retest Date 2022-02-04 (YYYY-MM-DD)  
Manufacturing Date 2019-02-04 (YYYY-MM-DD)

It is hereby certified that the material indicated above has been manufactured in accordance with current Joint International Pharmaceutical Excipients Council (IPEC) Pharmaceutical Quality Group (PQG) Good Manufacturing Practices Guide for Pharmaceutical Excipients 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.

Test	Unit	Lower Limit	Upper Limit	Value	Method
Mole Weight, Average		300	420	357	Current NF
Ethylene Oxide	ppm	-	10	0	current NF
1,4-Dioxane	ppm	-	10	0	Current NF
EG + DEG	WT%	-	0.25	0.02	Current NF
pH		4.5	7,5	5.3	current NF
25degC 5% aqueous solution					
Viscosity	cSt	6.8	8.0	7.2	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%					
Q Heavy Metals	-	-	-	Pass	Current USP
less than 5 ppm					
Appearance	-	-	-	Pass	Current EP
clear, viscous, almost colorless liquid					
Identification: a	-	-	-	Pass	Current EP
Acidity	-	-	-	Pass	Current EP
less than 0.1mL of 0.1M NaOH					
Viscosity	mPa.s	105	130	118	Current EP



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Hydroxyl Value		264	300	283	Current EP
EG + DEG	WT%	-	0,4	0,0	Current EP
Ethylene Oxide	ppm	-	1	0	Current EP
1,4-Dioxane	ppm	-	10	0	Current EP
Water	WT%	-	0.5	0.0	Current EP
Q Identification: b, c	-	-	-	Pass	Current EP
Q Appearance of Soln	-	-	-	Pass	Current EP
Q Reducing Substances	-	-	-	Pass	Current EP
Q Formaldehyde	-	-	-	Pass	Current EP
less than 30 ppm					
Q Heavy Metals	-	-	-	Pass	Current USP
less than 20 ppm					
Q Sulphated Ash	-	-	-	Pass	Current USP
less than 0.2					
Appearance	-	-	-	Pass	1B-ZMETB-20.5
neat					
Color, Pt-Co	-	-	18	7	ASTM D5386
Freezing Point	-	-	-	Pass	ASTM 01177
between 4 - 8 deg c					
1 1,4-Dioxane	-	-	-	Pass	Current NF/EP
less than 380 ppm					
1 Ethylene glycol	-	-	-	Pass	Current NF/EP
less than 620 ppm					

In addition to the requirements noted, the following parameters comply with the 2015 Chinese Pharmacopeia: Identification Test (11 (2): Pass; Ethylene Glycol: 0.1 wt % max.; Diethylene Glycol : 0.1 wt % max.; Acidity/pH (5% solution): 4.0 - 7.0; Kinematic Viscosity@ 40 °C: 37 - 45 mm<sup>2</sup>/s; Relative Density: 1.110 - 1.140; Congealing Point: 4 - 8 °C; Heavy Metals: 5 ppm max; Residue on Ignition: 0.1% max; Arsenic: 3 ppm max.

!:Residual Solvents - Class 2 Solvent  
O:Analyzed Quarterly



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*Joelene K Smith-Drake*

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Quality Coordinator

For inquiries please contact Customer Service or local sales