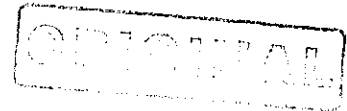




# CERTIFICATE OF ANALYSIS



Head Office : The-K Twin Towers B-dong, 50, Jong-ro 1-gil, Jongno-gu, Seoul, 03142 Republic of Korea  
TEL) +82-2-3787-1234 FAX) +82-2-537-3216

Ulsan Plant : 255, Yongjam-ro, Nam-gu, Ulsan, 44782, Korea  
TEL) +82-52-278-5206 FAX) +82-52-275-5113

**Product Name : DPG**

**Lot No : D00413DG**

**Manufacturing Date : 2020-04-01**

**Expiry Date : 2022-03-31**

Property	Specification	Test Result	Test Method
DPG , wt.%	Min. 99.5	99.99	Current USP/ASTM E 202
Sp.Gr , 20/20 c	1.02 - 1.025	1.0238	Current USP/ASTM D 4052
Acidity,0.01N , ppm	Max. 30	9.0	Current USP/ASTM D 1613
Water , ppm	Max. 1000	120	Current USP/ASTM E 203
Chloride , ppm	Max. 1	LT 0.1	Current USP
Fe , ppm	Max. 0.2	0.02	ASTM E 394
Residue on Ignition , ppm	Max. 50	5	Current USP
Color , APHA	Max. 10	3.0	ASTM D 1209
Suspendid Matter , -	Min. Pass	Pass	SKC-M-107
IBP , DegC	Min. 228	230.2	ASTM D 1078
DP , DegC	Max. 240	232.4	ASTM D 1078

\*LT : Less Than

I certify the above statements are true and correct.

Date Recorded : 2020-04-02

Quality Assurance Manager : J. H. CHA