

SK NETWORKS CO. LTD.
199-15, EULJIRO-2GA, JUNG-GU,
SEOUL, 100-192, KOREA

CERTIFICATE OF ANALYSIS

' TO WHOM IT MAY CONCERN '

MAY. 24, 2018

-. DESCRIPTION : 103.20 MT OF PROPYLENE GLYCOL USP
P/I NO.PG18069PET DD.180427
TARIFF NO.29053200
TOTAL NET WEIGHT : 103200.00 KGS
ORIGIN : KOREA

REG NO : 98764006
INSURANCE POLICY NO : 1397/40006-40006/152/14
SAMAN INSURANCE CO.

PRODUCTION DATE : MAY. 16, 2018 / MAY. 17, 2018
EXPIRY DATE : MAY. 15, 2020 / MAY. 16, 2020
BATCH NO. : B01561UP / B01571UP

-. QUANTITY : 103.20 MT

WE, SK NETWORKS CO. LTD., AS THE BENEFICIARY HEREBY CERTIFY THAT
ANALYSIS OF QUALITY IS AS FOLLOWS,

Items	Specifications	Test Method	Results	
			B01561UP	B01571UP
Identification, -	Pass	USP XXX	Pass	Pass
MPG Assay , wt. %	Min. 99.8	USP XXX	99.96	99.96
Sp. Gr (25/25 °C)	1.035 - 1.037	USP XXX	1.036	1.036
Color , APHA	Max. 10	ASTM D 1209	2.0	2.0
Water , ppm	Max. 700	USP XXX	80	80
Acidity , ml	Max. 0.05	USP XXX	0.02	0.02
Iron , ppm	Max. 0.1	ASTM E 394	0.02	0.02
Chlorides,wt.ppm,	Max. 1	USP XXX	0.1	0.1
Sulfate,wt.ppm	Max. 10	USP XXX	0.0	0.0
Heavy metals , ppm	Max. 1	USP XXX	LT1.0	LT1.0
Arsenic, wt.ppm	Max. 1	AAS	LT0.1	LT0.1
Residue , ppm	Max. 20	USP XXX	5.0	5.0
Residual Solvent , -	Pass	USP XXX	Pass	Pass
EG , wt.ppm	Max. 50	USP XXX	0	0
DEG , wt.ppm	Max. 50	USP XXX	0	0
Distillation Range (1atm), °C	186 - 189	ASTM E 202	186.2 - 187.4	186.2 - 187.4

* LT : Less Than



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