

EAST CHEMSOURCES LIMITED
No.666 Haibin 12th Road, Huangdao, Qingdao,China

Certificate of Analysis

Product Name: Propylene Glycol USP GRADE

Production Date: APR 02, 2019

Batch No.: 20190402

Expiry Date: APR 01, 2021

Items	Unit	Specification	Results
Color	Apha color	10max	<10
Moisture	Weight %	0.2max	0.070
Specific Gravity	25°C	1.035-1.037	1.036
Refractive index	25°C	1.4307-1.4317	1.4312
Distillation range	(L), °C	184-189	186
Distillation range	(U), °C	184-189	185
Distillation volume	Vol%	95min	97.8
Identification	—	passed	passed
Acidity	ml	0.20max	0.10
Chloride	Weight %	0.007max	<0.007
Sulfate	0.006max	0.006max	<0.006
Heavy metals	ppm	5max	<5
Residue on ignition	Weight %	0.007max	0.002
Organic Volatile impurity Chloroform(μg/g)		60max	Non-detected
Organic Volatile impurity 1.4 dioxane(μg/g)		380max	Non-detected
Organic Voltile impurity methylene chloride(μg/g)		600max	Non-detected
Organic Voltile impurity trichloroethylene(μg/g)		80max	Non-detected
Assay	GLC%	99.5min	99.90

End of Test Data

Conclusion: ELIGIBILITY

Analyst: 04

Checker: 02

Supervisor: 01

EAST CHEMSOURCES LIMITED
伊特实业有限公司
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Authorized Signature

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No.666 Haibin 12th Road, Huangdao, Qingdao,China

CERTIFICATE OF ANALYSIS

Product Name	Propylene Glycol		
Batch No.	20190702	Quantity	20mt
Produce Date	JUL.02,2019	Expiry Date	JUL.01,2021

Items and Results

Items	Standard	Results	Unit of Measure
Content	99.50min	99.80	Weight %
Moisture	0.10max	0.05	Weight %
Relative Density	1.038± 0.001	1.038	20°C (g/cm ³)
Color	5 max	4	APHA Color
Appearance	Colorless transparent liquid		
Conclusion	ELIGIBILITY		

Analyst: 04

Checker: 02

EAST CHEMSOURCES LIMITED
伊特实业有限公司
Supervisor: 01


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