



Certificate of Analysis

CHEM WORLD
885 WOODSTOCK ROAD
SUITE 430-111
ROSEWELL, GA. 30075

Order Number 4091
Ship Date 5/5/2014
Vehicle Number
Estimated Quantity
Delivery No.

Product Name **Propylene Glycol USP Kosher**

Test Details

Parameter	Results	Unit	Specifications	
			Min	Max
Lot 141182047				
Manufacturing Date	M/D/Y			
Purity, Assay		Wt %	99.5	
Appearance			Pass	
Acidity, as Acetic Acid		Wt. %		0.005
Water		Wt. %		0.200
Color		Pt-Co		10
Sulfate		ppm		60
Heavy Metals as Pb		ppm		5
Identification, matches IR scan			PASS	
Residual Solvents			PASS	
Chlorides		ppm		1
Iron		ppm		0.5
Infrared Spectrum			PASS	
Specific Gravity @25		Deg C	1.035	1.037
Residue on Ignition		ppm		70
Distillation IBP @ 760 mmHg		°C	185	
Distillation DP @ 760 mmHg		°C		189
Refractive Index @20 C		Deg C	1.4310	1.4340
Oxidizing Substances			PASS	
Reducing Substances			PASS	
Lead	(1)	ppm (1)		1
Limit on DEG		wt%		0.10
Limit on EG		wt%		0.10

Notes: (1) Agreed Specification limits – no results reported

Product meets or exceeds all requirements of the United States Pharmacopeia (USP), European Pharmacopeia (EP) and the Food Chemicals Codex (FCC)

Lot Number and Traceability

Traceability may be maintained through the lot number indicated in this document.

The shelf life of propylene glycol USP when stored and handled under appropriate conditions is at least one year from manufacturing date. Subsequent handling and/or repackaging by intermediates may affect shelf life. In general, the user should determine the suitability of any chemical, no matter what the shelf life or length of time of storage. Each user should establish the suitability of any product for his intended use.