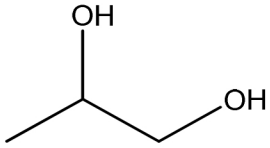
BUILDING VISION AND VARIETY

Sales Specification



Propylene Glycol - USP

Property	Unit	Specification	Test Method
Purity	wt%	99.5 Min	GC-87
DPG	wt%	0.1 Max	GC-87
EG (limit 0.1%)	wt%	Pass	GP-87-3
DEG (limit 0.1%)	wt%	Pass	GP-87-3
Identification by GC Retention	-	Pass	GP-87-3
Identification by IR	-	Pass	GP-120
Water	wt%	0.2 Max	GP-2D
Color	Pt-Co	10 Max	GP-3
Acidity as Acetic Acid	wt%	0.002 Max	GP-4
Acidity, ml of 0.01N NaOH	mL	1.67 Max	GP-4
Acidity, ml of 0.1N NaOH	mL	0.2 Max	GP-4N
Appearance	-	Clear&FFSM	GP-7-1
Specific Gravity @ 20/20°C	-	1.0376 – 1.0389	GP-1J
Specific Gravity @ 25/25°C	-	1.035 – 1.037	GP-1J
Distillation, IBP	°C	186.0 Min	GP-5K-2
Distillation, DP	°C	189.0 Max	GP-5K-2
Refractive Index @ 25°C	-	1.430 – 1.434	GP-22
Chlorides as Cl	ppm	70 Max	GP-14U-2
Chlorides as Cl	ppm	0.5 Max	GP-14B
Sulfates	ppm	60 Max	GP-15-2
Residue on Ignition	wt%	0.0070 Max	GP-18B-1
Odor	-	Practically None	GP-21C
Iron	ppm	0.5 Max	GP-11N-2

Property	Unit	Specification	Test Method
Heavy Metals	ppm	5 Max	GP-36B
Lead	ppm	1 Max	GP-36H-1
Arsenic as As	ppm	1 Max	GP-49B-1

Propylene glycol is designated a Volatile Organic Compound (VOC) in the Clean Air Act Section #111 Code of Federal Regulations (CFR) v. 40 Part 60 (1995). It is subject to compliance with the emission standards set forth in the following subparts of 40 CFR Part 60:VV,NNN,RRR. Consideration must also be given to any applicable state or environmental regulations.

BVV Propylene Glycol USP, CAS No, 57-55-6, meets the requirements of the US Pharmacopeia (current edition), including the provisions found in section 467 entitled Organic Volatile Impurities (residual solvents), and the Food Chemicals Codex (current edition). BVV Propylene Glycol USP is considered NOT genetically modified and NOT derived from a genetically modified organism as defined by the EC directives 1830/2003/EC on labeling and traceability and 1829/2003/EC on genetically modified food and feed and any amending legislation. Among the approved uses of this product is as a direct food ingredient under Title 21 CFR 184.1666. This product is authorized for free sale to the European Union (EC).

Expiration date is two years from date of manufacture when the Propylene Glycol USP is kept below 100F, out of direct sunlight, in the original sealed drums or totes, or in properly designed bulk storage with a dry air or nitrogen pad.

Date format: 01/02/13 = January 2, 2013.

Analyses for chlorides, sulfates, residue, reducing & oxidizing subst., arsenic, lead, glycerin and heavy metals are skip lot tested quarterly. Minimum molecular weight: 76.09

Product Code: 101280 (Bulk)
CAS Number: 57-55-6
Synonym: 1,2-propanediol
Effective Date: 11/3/17
Revision: FCD-00543/21