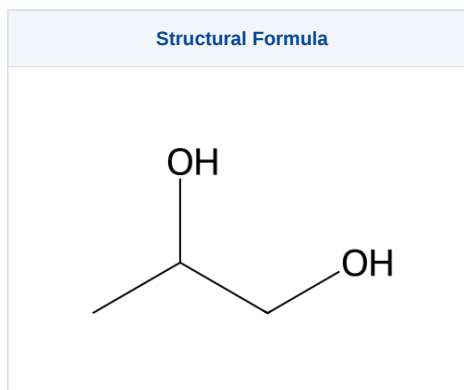


CERTIFICATE OF ANALYSIS

Standard product specification — applicable to all consignments of this product and grade supplied by Scapex Exports Pvt. Ltd., manufacturer and supplier of quality chemicals.

Product Name	Mono Propylene Glycol (USP)
C.A.S. Number	57-55-6
Molecular Formula	C ₃ H ₈ O ₂
Molecular Weight	76.09
Grade / Standard	≥99.8% USP/Pharma
Physical Form	Clear colorless viscous liquid
Product Category	Solvents & Glycols
Country of Origin	India



ANALYTICAL RESULTS

S. No.	Test Parameter	Specification	Result	Method
1	Description	Clear colorless viscous liquid	Complies	Visual
2	Identification (A) — Infrared absorption	Concordant with reference spectrum	Complies	IR Spectrophotometry
3	Identification (B) — Chemical / chromatographic	Positive for the substance	Complies	As per monograph
4	Assay	Not less than 99.8 % w/w	99.91	HPLC / Titrimetry (Monograph)
5	Purity (by GC)	Not less than 99.5 % (area)	99.62	Gas Chromatography
6	Colour (APHA / Pt-Co)	Not more than 10	6	ASTM D1209
7	Water Content	Not more than 0.05 % w/w	0.0158	Karl Fischer titration
8	Acidity (as acetic acid)	Not more than 0.002 % w/w	0.0004	Titrimetry
9	Residue on Evaporation	Not more than 0.001 % w/w	0.0002	Gravimetry
10	Specific Gravity at 25 °C	1.033 – 1.039	1.0375	Pycnometry / ASTM D4052
11	Refractive Index at 20 °C	1.4304 – 1.4344	1.4332	Refractometry / ASTM D1218
12	Sulphated Ash / Residue on Ignition	Not more than 0.1 % w/w	0.059	Gravimetry (Monograph)
13	Heavy Metals	Not more than 20 ppm	Less than 10 ppm	ICP-OES / Limit test
14	Related Substances — any individual impurity	Not more than 0.10 %	0.038	HPLC
15	Related Substances — total impurities	Not more than 0.50 %	0.054	HPLC
16	Residual Solvents	Complies with ICH Q3C limits	Complies	Headspace GC
17	Structure	Conforms to reference structure	Complies	FTIR / NMR

Remarks

Material supplied against this specification is analysed on every production lot and **conforms** to the limits stated above in all tested parameters. Results shown are the typical values obtained for this grade.

Retained samples are held against every export consignment. Store in tightly closed original packing, in a cool, dry, well-ventilated place away from incompatible materials and direct sunlight.

Checked and Approved by

Prem Panchal

Quality Assurance
Scapex Exports Pvt. Ltd.

This document sets out the standard specification for the product named above and applies to all consignments of this grade. It is issued by Scapex Exports Pvt. Ltd. as manufacturer and supplier. Refer to the Material Safety Data Sheet (MSDS) before handling.