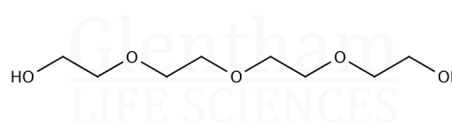


Certificate of Analysis

Product Name	Polyethylene glycol 4000, BP, Ph. Eur., USP/NF grade
Glenthams Code	GC0009
CAS Number	25322-68-3
EINECS	500-038-2
MDL Number	MFCD00081839
Batch Number	292AWT

Molecular Weight	3,600 - 4,400
Molecular Formula	$(-CH_2CH_2O-)_n$
Storage Temp.	+20°C



Property	Specification	Batch 292AWT
Physical Description	White or almost white solid with a waxy appearance	Conforms
Identification	To pass tests A, B, C according to Ph Eur.	Conforms
Solubility (25% in water)	Clear, colourless solution	Clear, colourless solution
pH (5% in water)	4.5 - 7.5	6.1
Molecular Weight	3600 - 4400	3984
Freezing Point	53 - 59 °C	54°C
Acidity or Alkalinity	≤ 0.1ml (of 0.1M NaOH required)	0.0ml
Dynamic Viscosity	110 - 170 mPa.s (50% in water)	121mPa.s
Kinematic Viscosity	102 - 158 mm ² /s (50% in water)	111mm ² /s
Dynamic Viscosity	110 - 158 cSt (98.9°C)	129cSt
Hydroxyl Value	25.0 - 32.0 mgKOH/g	28.2mgKOH/g
Sulphated Ash	≤ 0.2%	Conforms
Residue on Ignition	≤ 0.1%	Conforms
Reducing Substances	To pass test	Conforms
Formaldehyde	≤ 30ppm	Conforms
Ethylene Oxide	≤ 1ppm	0ppm
1,4-Dioxane	≤ 10ppm	≤ 0.1ppm
Water	≤ 1.0%	0.1%
Pharmacopoeia Specification(s)	BP, Ph. Eur., USP/NF	Conforms

Specification Version	v1.1
Manufacture Date	2024-09-25
Re-Test Date	2027-09-25

Glenthams Life Sciences confirm that the above referenced product conformed to the information displayed in this document on the quality release date. Please check www.glenthams.com or contact us using the details above for the current version of this document.

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