

**CENTRO-CHEM**

P.W. "CENTRO-CHEM" Spółka Jawna

**QUALITY CERTIFICATE**

Material	GLYCEROL 99,5 % USP/FCC/EP VEGETABLE
Chemical formula	$C_3H_8O_3$
Batch	AZ001429
Mfg date	07. 2020
Exp date	07. 2021

Parameters	unit	Specification		Result
		min.	max.	
Refractive index		Compatible		Pass
Nitric acid test		Compatible		Pass
Assay	%	99,5	101	99,85
Acidity/alkalinity	ml (0,1 M NaOH)	-	0,2	0,04
Aldehydes	ppm	-	10,0	<10
Esters	ml (0,1 MHCl)	8,0	-	9,15
Halogenated compounds content	ppm	-	35,0	<35,0
Sugars	-	Compatible		Pass
Chlorides	ppm	-	10	<10
Heavy metals	ppm	-	5	<5
Water	%	-	0,5	0,02
Refractive index		1,470	1,475	1,4732
Sulphated ash content	%	-	0,01	<0,01
Diethylene glycol content	%	-	0,1	<0,1
Content of any other impurity with retention Times greater than the retention time of glycerol	%	-	0,1	<0,1
Content of impurities with a retention Times greater than the retention time of glicerol	%	-	0,5	<0,5



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Colour in Pt-Co		-	10	4
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We certify that the results are consistent with the manufacturer's certificate.

The certificate was created electronically and is valid without signature.