



Specification

1.04057.2511 Glycerol (vegetable origin) for analysis EMSURE® ACS, Reag. Ph Eur

	Specification	
Assay (GC, calc. on anhydr. substance)	≥ 99.5	%
Assay (alkalimetric, calculated on anhydrous substance)	98.0 - 101.0	%
Identity	passes test	
Color	≤ 10	APHA
Appearance of solution	passes test	
Acidity or alkalinity	passes test	
Free acid (CH ₃ COOH)	≤ 0.002	%
Neutrality	passes test	
Refractive index (n _{20/D})	1.470 - 1.475	
Chloride (Cl)	≤ 0.0010	%
Sulfate (SO ₄)	≤ 0.001	%
Halogenated compounds (as Cl)	≤ 0.0030	%
Heavy metals (as Pb)	≤ 0.00020	%
Al (Aluminium)	≤ 0.00005	%
B (Boron)	≤ 0.000002	%
Ba (Barium)	≤ 0.00001	%
Ca (Calcium)	≤ 0.0001	%
Cd (Cadmium)	≤ 0.000005	%
Co (Cobalt)	≤ 0.000005	%
Cr (Chromium)	≤ 0.000002	%
Cu (Copper)	≤ 0.000005	%
Fe (Iron)	≤ 0.00001	%
Mg (Magnesium)	≤ 0.0001	%
Mn (Manganese)	≤ 0.00001	%
Ni (Nickel)	≤ 0.000002	%
Pb (Lead)	≤ 0.00001	%
Sn (Tin)	≤ 0.00001	%
Zn (Zinc)	≤ 0.00001	%
Methanol	≤ 3000	ppm
Other residual solvents (ICH Q3C)	...excluded by production process	
Acrolein and glucose	passes test	
Aldehydes	≤ 10	ppm
Diethylene glycol and related Substances (impurity A)	≤ 0.1	%
Diethylene glycol and related Substances (any further impurity)	≤ 0.1	%
Diethylene glycol and related Substances (Sum of all impurities)	≤ 0.5	%
Fatty acids and esters (as Butyric acid)	≤ 0.05	%
Substances darkened by sulfuric acid	passes test	
Sugar	passes test	

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Sulfated ash	≤ 0.005	%
Water	≤ 0.5	%

Dr. Reiner Vogt

Responsible laboratory manager quality control

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