



Technical Data Sheet (TDS) – Glycerin Food Grade

Product Identification

Property	Information
Product Name	Glycerin Food Grade
Chemical Name	Glycerol
Synonyms	Glycerine, Glycerol, 1,2,3-Propanetriol
CAS Number	56-81-5
EC Number	200-289-5
Chemical Formula	$C_3H_8O_3$
Molecular Weight	92.09 g/mol
Grade	Food Grade
Appearance	Clear, colorless, viscous liquid
Odor	Odorless to nearly odorless
Taste	Mildly sweet



Typical Technical Specifications

Test Parameter	Typical Specification	Test / Reference
Glycerol Content	≥ 99.5 wt.%	Typical food-grade specification
Water Content	≤ 0.5 wt.%	Karl Fischer / equivalent
Appearance	Clear and colorless	Visual
Color	≤ 10 APHA	ASTM D1209 / equivalent
Relative Density at 20°C	1.255 – 1.265	Typical
Specific Gravity at 20°C	Approx. 1.26	Typical
Refractive Index at 20°C	1.470 – 1.475	Typical
pH	5.0 – 7.5	Grade dependent
Ash	≤ 0.01 wt.%	Typical
Chloride	≤ 10 ppm	Typical
Sulfate	≤ 20 ppm	Typical
Heavy Metals	Within applicable food-grade limits	Applicable standard
Lead (Pb)	Typically $\leq 1-2$ ppm	Grade dependent
Arsenic (As)	Typically ≤ 1 ppm	Grade dependent
Reducing Substances	Passes specification	Food-grade test
Fatty Acids & Esters	Within food-grade specification	Grade dependent
Residue on Ignition	≤ 0.01 wt.%	Typical
Water Solubility	Completely miscible	Visual
Alcohol Solubility	Soluble	Typical



Typical Physical Properties

Property	Typical Value
Physical State	Liquid
Boiling Point	Approx. 290°C
Melting / Freezing Point	Approx. 18°C
Flash Point	Approx. 176–199°C, depending on test method
Auto-Ignition Temperature	Approx. 370°C
Vapor Pressure	Very low at ambient temperature
Viscosity at 20°C	Approx. 1,200–1,500 mPa·s
Density at 20°C	Approx. 1.26 g/cm ³
Hygroscopicity	High
Water Solubility	Completely miscible
Odor Threshold	Not significant
Volatility	Low