

Effective: 08/05/23

PRODUCT SPECIFICATIONS

Product Name: Refined Glycerin Vegetable Grade, Kosher,

Coconut Oil Derived

Product Code: TRG100KCNO

Chemical Name: Glycerol

Meets USP-NF (US Pharmacopeia-National Formulary) and FCC (Food Chemical Codex) specifications

<u>Properties</u>	Specifications	<u>Methods</u>
Color, Ferric Chloride	Passes	USP/NF*
Identification A, IR Identification B, <i>Limit of DEG</i> & Identification C, GC	Passes as glycerin Passes ($\leq 0.1\%$ of each DEG & EG) Passes glycerin	USP #197F USP/NF* USP/NF*
Specific Gravity (SG)	1.249 min @25/25°C	USP #841
Residue on Ignition (ROI)	0.01% max	USP #281
Water	0.3% max	USP #921
Chloride	Passes (10ppm or 0.001% max)	USP #221
Sulfate	Passes (20ppm or 0.002% max)	USP #221
Elemental Impurities	Meets Oral PDE Limits	USP #232 & 233
Limit of Chlorinated Compds.	Passes (30ppm or 0.003% max)	USP/NF*
Fatty Acids & Esters (FA & E)	1 ml. max of 0.5N NaOH consumed	USP/NF*
Related Compounds	≤ 0.1% any other individual impurity and ≤ 1.0% for total impurities	USP/NF*
Assay, anhydrous	99.0 - 101.0%	USP/NF*
Residual Class 1 & 2 Solvents	Passes	USP* <467>

^{*} In compliance with the latest USP/NF supplement

CAS# 56-81-5

All data, including the formulations and procedures discussed herein are believed to be correct. However, this should not be accepted as a guarantee of their accuracy, and confirming tests should be run in your own plant or laboratory. No statement shall be construed as a recommendation for any use which would violate patent rights. Sales of all products are pursuant to terms and conditions included in Twin Rivers Technologies' sales documents. Nothing contained herein shall constitute a guarantee or warranty with respect to the products described or their use. Safety information regarding this product is contained in its Safety Data Sheet (SDS). Consumers of this product are urged to study and use the information contained on the SDS.