

**CERTIFICATE OF ANALYSIS**  
 分析证书

**PRODUCT NAME: Superol K Glycerin, USP/ FCC**  
**产品名称: Superol K 甘油, USP/ FCC**

For food additive (not directly edible) 食品添加剂 (不可直接食用)

 FC GCAS No./FC GCAS编号: **95897935.010**  
 Material Code/材料代码: **10275607**  
 IRMS No./IRMS 编号: **10045672**  
 Order No./订单号: **CN-A17-223**  
 Manufacturing Date/生产日期: **January 2, 2018**  
 Analysis Date/分析日期: **January 3, 2018**  
 Lot No./批号: **8002038811**

Shelf Life/有效期

**2 years for unopened package at ambient temperature conditions.\*未开封包装室温条件下 2 年。\***

Shelf life of this material in an unopened package is valid starting from the date of production. Shelf life of a material is dependent on various conditions including storage, handling, distribution and transportation. The shelf life of up to 2 years is expected for unopened packaged glycerin that is stored under secure and normal temperature without any tampering, or changes to the recommended storage condition.

本材料在未开封包装中的保质期自生产日期起生效。材料的使用寿命取决于多种条件，包括储存、搬运、销售和运输。在密封包装的条件下存放长达 2 年的保质期。保质期在安全的情况下可延长。保质期与运输和储存条件变化时可能会受到影响。

Glycerin is commonly used in foods &amp; beverages applications and serves as a humectant, solvent and sweetener. \*\*

\*USP monograph for excipient use. \*\* Based on technical suitability only. Appropriate use of product is the responsibility of the purchasers. 用量和方法由特定客户定义。

使用范围：甘油通常用于食品和饮料。用作保湿剂、溶剂和甜味剂。\*\*

\* USP 专著规定用作赋形剂 \*\* 仅以技术适用性为基础。产品的适当使用是购买者的责任。

**SHIPMENT QUALITY REPORT/发运质量报告**

PARAMETER/参数	METHODS/方法	VALUE/值	LIMITS/限值
Identification A by IR: Glycerin /标识A - 按IR: 甘油	60065177	<b>PASS</b>	PASS - as glycerin /通过 - 甘油
Identification B by GC: Limit of DEG & EG /标识B - 按GC: DEG & EG 限值	98955124	<b>PASS</b>	PASS - Not more than 0.10% each of DEG and EG / 通过 - DEG和EG均不超过0.10%
Identification C by GC: Glycerin /标识C -按GC:甘油	98955124	<b>PASS</b>	PASS - as glycerin /通过 - 甘油
Residual Solvent/ 残留溶剂	USP467	<b>PASS</b>	Meets Requirement /符合要求
Fatty Acids and Esters (USP) / 脂肪酸和脂肪酸酯 (USP)	60065134	<b>0.1</b>	USL: 0.3 ml of 0.5N NaOH
Fatty Acids and Esters (FCC) /脂肪酸和脂肪酸酯(FCC)	60065134	<b>5</b>	LSL: 4 ml of 0.5N HCl
Specific Gravity /比重	64012970	<b>1.2614</b>	LSL: 1.2613 @ 25 / 25°C
% Glycerin (calculated from Specific Gravity) / 甘油%(利用比重计算)	64012970	<b>99.7</b>	LSL: 99.7%
Odor /气味	60065271	<b>PASS</b>	PASS /通过
Flavor /味道	60065270	<b>PASS</b>	PASS /通过
APHA Color / APHA 颜色	60064681	<b>2</b>	USL: 10
Color USP FCC / 颜色USP FCC	97019504	<b>PASS</b>	PASS /通过
Residue On Ignition / 炽灼残渣	60064682	<b>0.003</b>	USL: 0.007 %
Water /水分	60065135	<b>0.1</b>	USL: 0.3 %
Appearance ( Visual Examination) /外观(目测)	60044625	<b>PASS</b>	PASS - Clear liquid, free of extraneous matter / 通过 - 澄清液体, 无异物
Chloride /氯化物	60065128	<b>PASS</b>	PASS (USL: 10ppm) /通过 (USL: 10ppm)
Sulfate /硫酸盐	60065131	<b>PASS</b>	PASS (USL: 20ppm) /通过 (USL: 20ppm)
Heavy Metals (Including Lead (Pb) (mg/kg)) / 重金属 (包括铅(Pb)(mg/kg))	60065174	<b>PASS</b>	PASS (USL: 1 ppm) /通过 (USL: 1 ppm)
Chlorinated Compounds /氯化化合物	60065420	<b>PASS</b>	PASS (USL: 30ppm USP, USL: 0.003% FCC) / 通过 (USL: 30ppm USP, USL: 0.003% FCC)



Assay, USP, Anhydrous /含量, 美国药典级, 干基	60065183	<b>99.8</b>	LSL: 99.0% - USL: 101.0%
Assay, %, (FCC) /含量%, (FCC)	60065183	<b>99.7</b>	LSL: 99.0% - USL: 101.0%
Related Compounds /相关化合物	95076103	<b>PASS</b>	PASS (USL: 0.1% individual impurity; USL: 1.0% for total impurities) /通过 (USL: 0.1% 个别杂质; USL: 1.0% 总杂质)
Readily Carbonizable Substances /易碳化物质	95119738	<b>PASS</b>	PASS /通过
Sulphated Ash, % /硫酸化灰分, %	95395280	<b>0.00</b>	USL: 0.01%
<b>ANALYZED BY/分析员:-</b>		<b>CERTIFIED BY COA APPROVER/认证员:-</b>	
NAME/姓名 : <b>NURELIYANA</b>  (Analytical Associate/助理分析员)		SIGNATURE/签名: <b>AZLIYANA ABD RAHMAN</b>	
		DATE/日期 : <b>January 8, 2018</b>	

This analysis is not to be construed as a warranty. Customer is responsible to verify the lot and code numbers of product received with the numbers contained on this report and perform any other analyses necessary to determine suitability of the product described above for the use intended by the customer. No representations as to FDA regulated use are made for this product unless it is expressly designated as meeting either USP, NF, Cosmetic grade or Food Grade Status. The foregoing analysis report is valid up to, but not beyond, the date of delivery to our primary customer referenced above. Any subsequent handling, repackaging, storage, processing, transporting etc. of the product render this these analysis report void, unsupported and unsubstantiated by Procter & Gamble Chemicals.

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USL = Upper Specification Limit/规格上限

PASS = Within/通过=规格限值以内

LSL = Lower Specification Limit/规格下限

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