Paseo Cargill Energy LLC.

USP Grade Kosher Glycerin

Certificate of Analysis

Lot Number	KG23038365
Load Order	2012860364
Car/Truck	CRGX 006463
Date Manufactured	Tuesday, June 13, 2023

Product Code: 13181 PO # P248654

PARAMETER	Method	Specification	RESULT
APPEARANCE	VISUAL	Qualitative	PASS
GLYCERIN CONCENTRATION	USP	99.7-101.0%	100.8 %
SPECIFIC GRAVITY @ 25°C	USP	1.2610 MIN.	1.2611
MOISTURE	USP (METHOD 1)	0.30% MAX	0.05 %
COLOR (APHA)	APHA	10 MAX	8
FATTY ACID & ESTER (ml of 0.5 N NaOH)	USP	1.0ML MAX	0.2 ML
ODOR	ASTM	Qualitative	Pass
CHLORIDES (ppm)	USP	10ppm MAX	Pass
CHLORINATED COMPOUNDS (ppm)	USP	30ppm MAX	Pass
SULFATES (ppm)	USP	20ppm MAX	Pass
IDENTITY A by IR	USP	Qualitative	Pass
IDENTITY B by GC (a)	USP	0.1% MAX	Pass
(Diethylene Glycol)	USP	0.1% MAX	< 0.10 %
(Ethylene Glycol)	USP	0.1% MAX	< 0.10 %
IDENTITY C by GC	USP	Qualitative	Pass
RESIDUAL SOLVENTS	USP	<0.3% MAX	Pass
RESIDUE ON IGNITION	USP	0.01% MAX	0.002 % W/W
RELATED COMPOUNDS	USP	PASS*	Pass

ELEMENTAL IMPURITIES:

PARAMETER	Method	Specification		RESULT
ARSENIC	USP <233>	Report	<	0.500 PPM
CADMIUM	USP <233>	Report	<	0.500 PPM
LEAD	USP <233>	Report	<	0.500 PPM
MERCURY	USP <233>	Report	<	0.500 PPM

* A result of Pass for Related Compounds is equal to having <0.1% of any individual impurity and <1.0% for total impurities
***Elemental impurities is conducted on a quarterly basis.

Approval: Zachary D. Horn Date: _____

Quality Lab Technician

(a) A result of PASS for Identity B signifies compliance with USP specifications effective May 1, 2009 for Diethylene glycol and ethylene glycol impurities not to exceed 0.10% each.

This product is manufactured under the NSF/IPEC/ANSI 363-2016 Good Manufacturing Practices (GMP) for Pharmaceutical Excipients requirements in conjunction with FSSC 22000 and meets the compositional standards for glycerin set forth in the current United States Pharmacopeia/National Formulary and the Food Chemical Codex. This product is generally acceptable for the following uses: food, personal care products and industrial applications. It is not intended to be used in pet food.

Under proper storage conditions (Glycerin is a humectant and should consequently be stored under dry and arid conditions to prevent exposure to moisture) the USP Grade Glycerin provided by Cargill has a shelf life of 2 years past the date of manufacture.

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