

March 3, 2018

Certificate of Analysis

BMS # 9120018100001

Product Description:

Glycerine 99.7% USP Kosher

Manufacturer.

P.T. Musim Mas 11/28/2017

Mfg Date: Expiration date:

5/27/2019

Vessel/Voyage:

"Stolt Selje" Voyage# HBR 51

Source:

Hudson Tank# 806

Lot Number: Customer Name: Glycerine 0303-18 T806 Brenntag Mid-South

Brenntag Mid-South PO#:

776903

Product#:

562101

Test	Result	Units	Method	Specification
Description	Passes		Visual	Clear liquid
Water Solubility	Passes		USP 40	To Pass
Color, Pt-Co	<10	Pt-Co	USP 40	10 max
Identification Test A - IR Test	Passes		USP 40	To Pass
Identification Test B - Limit of EG and DEG				
- Diethylene glycol	< 0.01	wt %	USP 40	0.1 max
- Ethylene glycol	< 0.01	wt %	USP 40	0.1 max
Identification Test C - GC Test	Passes		USP 40	To Pass
Related compounds	Passes		USP 40	To Pass
Specific gravity @ 25/25°C	1.2615		USP 40	1.2612 min
Residue On Ignition	<0.01	mg/50gm	USP 40	5.0 mg/50gm max
Water	0.01	wt %	USP 40	0.3 max
Chloride	Passes	ppm	USP 40	10 max
Sulfate	Passes	ppm	USP 40	20 max
Heavy Metals	Passes	ppm	USP 40	5 max
Chlorinated Compounds	Passes	ppm	USP 40	30 max
Assay (Anhydrous basis)	99.9	wt %	USP 40	99.0 - 101.0
Fatty Acid and Esters (mL of 0.5 N NaOH)	Passes	mL	USP 40	1.0 max
Residual Solvents	Compliant		USP 40	Compliant

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IMPORTANT: All information provided is believed to be accurate and complete. The data provided is representative of the product quality on the date of analysis for the lot number indicated. This certificate of analysis may not include all of the constituents of the product. Persons using this information should make their own determination regarding its suitability for their particular application. This certificate of analysis shall not in any way limit or preclude the operation and effect of the applicable terms and conditions of sale.