



PT. MUSIM MAS

Head Office: Jl. K. L. Yos Sudarso Km. 7,8
Tanjung Mulia - Medan 20241
Sumatera Utara - Indonesia
Tel: (62-61) 6615511- 6619866
Fax: (62-61) 6613060 - 6617386

Analytical Laboratory of Oleochemicals and Specialty Fats

Jl. Oleo, Kawasan Industri Medan II
Saentis - Percut Sei Tuan, Deli Serdang
Medan 20371 - Indonesia
Tel: (62-61) 6871123
Fax: (62-61) 6871152 - 6871153
Email: olco@musimmas.com



ORIGINAL

MEDAN, 18 MARCH 2015

CERTIFICATE OF ANALYSIS

DESCRIPTION OF GOODS : 1 X 20'FCL: 18 MT = 72 DRUMS
MASCEROL GLYCERINE 99.7% USP KOSHER FOR PASSOVER
PACKING: STANDARD MUSIM MAS 250KG NEW STEEL LINED
DRUMS PALLETIZED (STANDARD 4-WAY WOODEN PALLET);
SHRINKWRAPPED
CUSTOMER PURCHASE NUMBER : BPC-422728

VESSEL NAME : UNI-AHEAD V.0076-435B T/S EVER ENVOY V.0390-112E
T/S EVER SAFETY V.0764-052E

SHIPMENT FROM : BELAWAN, INDONESIA.

SHIPMENT TO : LONG BEACH, CA, UNITED STATES

SHIPMENT DATE : 18 MARCH 2015

LOT NO. : 0735CME3L

PRODUCTION DATE : 06 MARCH 2015

EXPIRY DATE : 06 SEPTEMBER 2016
(STORE UNDER COOL, DRY AND SHADED WAREHOUSE.
AVOID DIRECT HEAT AND SUNLIGHT)

TEST PARAMETER	UNIT	TEST METHOD	RESULT	SPECIFICATION
GLYCERINE CONTENT	%	AOCS Ea 7-95	99.9	99.7 MIN
SPECIFIC GRAVITY	25/25°C	USP 37	1.2618	1.2612 MIN
COLOUR	APHA	AMT-FGQ-G10	<10	10 MAX
IDENTIFICATION TEST A* ¹		USP 37	PASSED	PASSES USP 37
IDENTIFICATION TEST B* ¹				
- DIETHYLENE GLYCOL	%	USP 37	<0.01	0.10 MAX
- ETHYLENE GLYCOL	%	USP 37	<0.01	0.10 MAX
IDENTIFICATION TEST C* ¹		USP 37	PASSED	PASSES USP 37
RESIDUE ON IGNITION	%	USP 37	<0.01	0.01 MAX
WATER	%	USP 37	0.08	0.3 MAX
CHLORIDE	ppm	USP 37	<10	10 MAX
SULFATE	ppm	USP 37	<20	20 MAX
HEAVY METALS* ¹	ppm	USP 37	<5	5 MAX
LIMIT OF CHLORINATED COMPOUNDS	ppm	USP 37	<30	30 MAX
FATTY ACID & ESTERS	ml 0.5N NaOH	USP 37	0.26	1.0 MAX
RELATED COMPOUNDS (INDIVIDUAL IMPURITY)* ¹	%	USP 37	<0.1	0.1 MAX
RELATED COMPOUNDS (TOTAL IMPURITIES)* ¹	%	USP 37	<1.0	1.0 MAX
ASSAY	%	USP 37	99.9	99.0 - 101.0

Note : *not accredited under ISO/IEC 17025

¹Based on periodic testing results



LEONG HOW WAN
QA MANAGER
REF NO. SC/15/GLY/0068(1)
PT. MUSIM MAS
AS MANUFACTURER
(BT)

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.