



Analytical Laboratory of Oleochemicals and Specialty Fats
 Jl. Oleo, Kawasan Industri Medan II Saentis
 Percut Sei Tuan, Deli Serdang - Medan 20371 - Indonesia



A member of Musim Mas Group

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CERTIFICATE OF ANALYSIS

REF NO. SC/23/GLY/0020(1)

DESCRIPTION OF GOODS : 5 X 20FT FCL : 100 MT = 400 DRUMS
 MASCEROL GLYCERINE 99.7% USP

LOT NO :

PRODUCTION DATE :

EXPIRY DATE :

(STORE UNDER COOL, DRY AND SHADED WAREHOUSE.
 AVOID DIRECT HEAT AND SUNLIGHT)

TEST PARAMETER	UNIT	TEST METHOD	RESULTS			SPECIFICATION
			LOT NO			
			000353BMD2C5L	000373BMD2C5L	000383BMD2C5L	
GLYCERINE CONTENT	%	AOCS Ea 7-95	99.9	99.9	99.9	99.7 MIN
SPECIFIC GRAVITY	25/25°C	USP43-NF38	1.2619	1.2619	1.2619	1.2612 MIN
COLOUR	APHA	AMT-FGQ-G10	<10	<10	<10	10 MAX
IDENTIFICATION TEST A* ¹		USP43-NF38	PASSED	PASSED	PASSED	PASSES
IDENTIFICATION TEST B*						
- DIETHYLENE GLYCOL	%	USP43-NF38	<0.01	<0.01	<0.01	0.10 MAX
- ETHYLENE GLYCOL	%	USP43-NF38	<0.01	<0.01	<0.01	0.10 MAX
IDENTIFICATION TEST C* ¹		USP43-NF38	PASSED	PASSED	PASSED	PASSES
RESIDUE ON IGNITION	%	USP43-NF38	<0.01	<0.01	<0.01	0.01 MAX
MOISTURE	%	USP43-NF38	0.04	0.04	0.05	0.3 MAX
CHLORIDE	ppm	USP43-NF38	<10	<10	<10	10 MAX
SULFATE	ppm	USP43-NF38	<20	<20	<20	20 MAX
HEAVY METALS* ¹	ppm	USP 39	<5	<5	<5	5 MAX
LIMIT OF CHLORINATED COMPOUNDS	ppm	USP43-NF38	<30	<30	<30	30 MAX
FATTY ACID & ESTERS	ml 0.5N NaOH	USP43-NF38	0.18	0.20	0.20	1.0 MAX
RELATED COMPOUNDS (INDIVIDUAL IMPURITY)* ¹	%	USP43-NF38	<0.1	<0.1	<0.1	0.1 MAX
RELATED COMPOUNDS (TOTAL IMPURITIES)* ¹	%	USP43-NF38	<1.0	<1.0	<1.0	1.0 MAX
ASSAY	%	USP43-NF38	99.9	99.9	99.9	99.0 - 101.0

Note : *not accredited under ISO/IEC 17025

¹Based on periodic testing results by External laboratory



LEONG/HOW WAN
 QUALITY MANAGER
 PT. MUSIM MAS
 (AS MANUFACTURER)
 (NGC)