

Certificate No. : 004/QFS/MKT/RG/BMRD/VII/26

CERTIFICATE OF ANALYSIS

Date : 13-Jul-26
Product Name : Refined Glycerine
Batch : CKR 26194 AB

Parameter	Result	Specification	Method
Appearance	Clear and Transparent	Clear and Transparent	USP 47
Glycerine Content, %	99.92	99.70 Min	Calculation
Identification A by IR *	Pass	Pass	USP 47
Identification C by GC *	Pass	Pass	USP 47
Specific Gravity (25/25 OC) *	1.2612	1.2490 Min	USP 47
Color (Pt-Co)	3.7	5.0 Max	ISO 6271-2015
Residue on Ignition, % *	<0.01	0.01 Max	USP 47
Chlorides, ppm *	<10	10 Max	USP 47
Sulfate, ppm *	<20	20 Max	USP 47
Chlorinated Compounds, ppm *	<30	30 Max	USP 47
Fatty Acid and Esters, mL NaOH 0.5N	0.25	1.0 Max	USP 47
Assay, %	99.85	99.0 - 101.0	USP 47
Diethylene Glycol, % *	<0.10	0.10 Max	USP 47
Ethylene Glycol, % *	<0.10	0.10 Max	USP 47
Water Content, %	0.08	0.30 Max	USP 47 Methode Ic
Individual Impurities, % *	<0.1	0.1 Max	USP 47
Total Impurities, % *	<1.0	1.0 Max	USP 47
Arsenic, ppm **	Not Detected	0.1 Max	ICP
Cadmium, ppm **	Not Detected	0.1 Max	ICP
Lead, ppm **	Not Detected	0.1 Max	ICP
Mercury, ppm **	Not Detected	0.1 Max	ICP

INFORMATION : -*: Non accredited parameters
!**: Based on test result from Accredited independent test laboratory

Prepared by,
Date : 31 July 2026



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Title : QC Officer Biodiesel

Approved by,
Date : 31 July 2026



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Certificate No. : 005/QFS/MKT/RG/BMRD/VII/26

CERTIFICATE OF ANALYSIS

Date : 14-Jul-26
Product Name : Refined Glycerine
Batch : CKR 26195 AA

Parameter	Result	Specification	Method
Appearance	Clear and Transparent	Clear and Transparent	USP 47
Glycerine Content, %	99.93	99.70 Min	Calculation
Identification A by IR *	Pass	Pass	USP 47
Identification C by GC *	Pass	Pass	USP 47
Specific Gravity (25/25 OC) *	1.2612	1.2490 Min	USP 47
Color (Pt-Co)	3.8	5.0 Max	ISO 6271-2015
Residue on Ignition, % *	<0.01	0.01 Max	USP 47
Chlorides, ppm *	<10	10 Max	USP 47
Sulfate, ppm *	<20	20 Max	USP 47
Chlorinated Compounds, ppm *	<30	30 Max	USP 47
Fatty Acid and Esters, mL NaOH 0.5N	0.25	1.0 Max	USP 47
Assay, %	99.98	99.0 - 101.0	USP 47
Diethylene Glycol, % *	<0.10	0.10 Max	USP 47
Ethylene Glycol, % *	<0.10	0.10 Max	USP 47
Water Content, %	0.07	0.30 Max	USP 47 Methode Ic
Individual Impurities, % *	<0.1	0.1 Max	USP 47
Total Impurities, % *	<1.0	1.0 Max	USP 47
Arsenic, ppm **	Not Detected	0.1 Max	ICP
Cadmium, ppm **	Not Detected	0.1 Max	ICP
Lead, ppm **	Not Detected	0.1 Max	ICP
Mercury, ppm **	Not Detected	0.1 Max	ICP

INFORMATION : -*: Non accredited parameters
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Prepared by,
Date : 31 July 2026



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Certificate No. : 006/QFS/MKT/RG/BMRD/VII/26

CERTIFICATE OF ANALYSIS

Date : 21-Jul-26
Product Name : Refined Glycerine
Batch : CKR 26202 AA

Parameter	Result	Specification	Method
Appearance	Clear and Transparent	Clear and Transparent	USP 47
Glycerine Content, %	99.91	99.70 Min	Calculation
Identification A by IR *	Pass	Pass	USP 47
Identification C by GC *	Pass	Pass	USP 47
Specific Gravity (25/25 OC) *	1.2610	1.2490 Min	USP 47
Color (Pt-Co)	3.7	5.0 Max	ISO 6271-2015
Residue on Ignition, % *	<0.01	0.01 Max	USP 47
Chlorides, ppm *	<10	10 Max	USP 47
Sulfate, ppm *	<20	20 Max	USP 47
Chlorinated Compounds, ppm *	<30	30 Max	USP 47
Fatty Acid and Esters, mL NaOH 0.5N	0.27	1.0 Max	USP 47
Assay, %	99.83	99.0 - 101.0	USP 47
Diethylene Glycol, % *	<0.10	0.10 Max	USP 47
Ethylene Glycol, % *	<0.10	0.10 Max	USP 47
Water Content, %	0.09	0.30 Max	USP 47 Methode Ic
Individual Impurities, % *	<0.1	0.1 Max	USP 47
Total Impurities, % *	<1.0	1.0 Max	USP 47
Arsenic, ppm **	Not Detected	0.1 Max	ICP
Cadmium, ppm **	Not Detected	0.1 Max	ICP
Lead, ppm **	Not Detected	0.1 Max	ICP
Mercury, ppm **	Not Detected	0.1 Max	ICP

INFORMATION

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!-**: Based on test result from Accredited independent test laboratory

Prepared by,
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Certificate No. : 007/QFS/MKT/RG/BMRD/VII/26

CERTIFICATE OF ANALYSIS

Date : 21-Jul-26
Product Name : Refined Glycerine
Batch : CKR 26202 AB

Parameter	Result	Specification	Method
Appearance	Clear and Transparent	Clear and Transparent	USP 47
Glycerine Content, %	99.91	99.70 Min	Calculation
Identification A by IR *	Pass	Pass	USP 47
Identification C by GC *	Pass	Pass	USP 47
Specific Gravity (25/25 OC) *	1.2610	1.2490 Min	USP 47
Color (Pt-Co)	3.7	5.0 Max	ISO 6271-2015
Residue on Ignition, % *	<0.01	0.01 Max	USP 47
Chlorides, ppm *	<10	10 Max	USP 47
Sulfate, ppm *	<20	20 Max	USP 47
Chlorinated Compounds, ppm *	<30	30 Max	USP 47
Fatty Acid and Esters, mL NaOH 0.5N	0.27	1.0 Max	USP 47
Assay, %	99.83	99.0 - 101.0	USP 47
Diethylene Glycol, % *	<0.10	0.10 Max	USP 47
Ethylene Glycol, % *	<0.10	0.10 Max	USP 47
Water Content, %	0.09	0.30 Max	USP 47 Methode Ic
Individual Impurities, % *	<0.1	0.1 Max	USP 47
Total Impurities, % *	<1.0	1.0 Max	USP 47
Arsenic, ppm **	Not Detected	0.1 Max	ICP
Cadmium, ppm **	Not Detected	0.1 Max	ICP
Lead, ppm **	Not Detected	0.1 Max	ICP
Mercury, ppm **	Not Detected	0.1 Max	ICP

INFORMATION

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Prepared by,

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Certificate No. : 008/QFS/MKT/RG/BMRD/VII/26

CERTIFICATE OF ANALYSIS

Date : 23-Jul-26
Product Name : Refined Glycerine
Batch : CKR 26204 AA

Parameter	Result	Specification	Method
Appearance	Clear and Transparent	Clear and Transparent	USP 47
Glycerine Content, %	99.91	99.70 Min	Calculation
Identification A by IR *	Pass	Pass	USP 47
Identification C by GC *	Pass	Pass	USP 47
Specific Gravity (25/25 OC) *	1.2596	1.2490 Min	USP 47
Color (Pt-Co)	3.8	5.0 Max	ISO 6271-2015
Residue on Ignition, % *	<0.01	0.01 Max	USP 47
Chlorides, ppm *	<10	10 Max	USP 47
Sulfate, ppm *	<20	20 Max	USP 47
Chlorinated Compounds, ppm *	<30	30 Max	USP 47
Fatty Acid and Esters, mL NaOH 0.5N	0.25	1.0 Max	USP 47
Assay, %	99.79	99.0 - 101.0	USP 47
Diethylene Glycol, % *	<0.10	0.10 Max	USP 47
Ethylene Glycol, % *	<0.10	0.10 Max	USP 47
Water Content, %	0.09	0.30 Max	USP 47 Methode Ic
Individual Impurities, % *	<0.1	0.1 Max	USP 47
Total Impurities, % *	<1.0	1.0 Max	USP 47
Arsenic, ppm **	Not Detected	0.1 Max	ICP
Cadmium, ppm **	Not Detected	0.1 Max	ICP
Lead, ppm **	Not Detected	0.1 Max	ICP
Mercury, ppm **	Not Detected	0.1 Max	ICP

INFORMATION : -*: Non accredited parameters
!**: Based on test result from Accredited independent test laboratory

Prepared by,
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Certificate No. : 009/QFS/MKT/RG/BMRD/VII/26

CERTIFICATE OF ANALYSIS

Date : 23-Jul-26
Product Name : Refined Glycerine
Batch : CKR 26204 AB

Parameter	Result	Specification	Method
Appearance	Clear and Transparent	Clear and Transparent	USP 47
Glycerine Content, %	99.91	99.70 Min	Calculation
Identification A by IR *	Pass	Pass	USP 47
Identification C by GC *	Pass	Pass	USP 47
Specific Gravity (25/25 OC) *	1.2596	1.2490 Min	USP 47
Color (Pt-Co)	3.8	5.0 Max	ISO 6271-2015
Residue on Ignition, % *	<0.01	0.01 Max	USP 47
Chlorides, ppm *	<10	10 Max	USP 47
Sulfate, ppm *	<20	20 Max	USP 47
Chlorinated Compounds, ppm *	<30	30 Max	USP 47
Fatty Acid and Esters, mL NaOH 0.5N	0.25	1.0 Max	USP 47
Assay, %	99.79	99.0 - 101.0	USP 47
Diethylene Glycol, % *	<0.10	0.10 Max	USP 47
Ethylene Glycol, % *	<0.10	0.10 Max	USP 47
Water Content, %	0.09	0.30 Max	USP 47 Methode Ic
Individual Impurities, % *	<0.1	0.1 Max	USP 47
Total Impurities, % *	<1.0	1.0 Max	USP 47
Arsenic, ppm **	Not Detected	0.1 Max	ICP
Cadmium, ppm **	Not Detected	0.1 Max	ICP
Lead, ppm **	Not Detected	0.1 Max	ICP
Mercury, ppm **	Not Detected	0.1 Max	ICP

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Prepared by,
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Certificate No. : 010/QFS/MKT/RG/BMRD/VII/26

CERTIFICATE OF ANALYSIS

Date : 24-Jul-26
Product Name : Refined Glycerine
Batch : CKR 26205 AA

Parameter	Result	Specification	Method
Appearance	Clear and Transparent	Clear and Transparent	USP 47
Glycerine Content, %	99.93	99.70 Min	Calculation
Identification A by IR *	Pass	Pass	USP 47
Identification C by GC *	Pass	Pass	USP 47
Specific Gravity (25/25 OC) *	1.2611	1.2490 Min	USP 47
Color (Pt-Co)	3.7	5.0 Max	ISO 6271-2015
Residue on Ignition, % *	<0.01	0.01 Max	USP 47
Chlorides, ppm *	<10	10 Max	USP 47
Sulfate, ppm *	<20	20 Max	USP 47
Chlorinated Compounds, ppm *	<30	30 Max	USP 47
Fatty Acid and Esters, mL NaOH 0.5N	0.25	1.0 Max	USP 47
Assay, %	99.81	99.0 - 101.0	USP 47
Diethylene Glycol, % *	<0.10	0.10 Max	USP 47
Ethylene Glycol, % *	<0.10	0.10 Max	USP 47
Water Content, %	0.07	0.30 Max	USP 47 Methode Ic
Individual Impurities, % *	<0.1	0.1 Max	USP 47
Total Impurities, % *	<1.0	1.0 Max	USP 47
Arsenic, ppm **	Not Detected	0.1 Max	ICP
Cadmium, ppm **	Not Detected	0.1 Max	ICP
Lead, ppm **	Not Detected	0.1 Max	ICP
Mercury, ppm **	Not Detected	0.1 Max	ICP

INFORMATION

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Prepared by,

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Certificate No. : 011/QFS/MKT/RG/BMRD/VII/26

CERTIFICATE OF ANALYSIS

Date : 27-Jul-26
Product Name : Refined Glycerine
Batch : CKR 26208 AA

Parameter	Result	Specification	Method
Appearance	Clear and Transparent	Clear and Transparent	USP 47
Glycerine Content, %	99.92	99.70 Min	Calculation
Identification A by IR *	Pass	Pass	USP 47
Identification C by GC *	Pass	Pass	USP 47
Specific Gravity (25/25 OC) *	1.2610	1.2490 Min	USP 47
Color (Pt-Co)	3.8	5.0 Max	ISO 6271-2015
Residue on Ignition, % *	<0.01	0.01 Max	USP 47
Chlorides, ppm *	<10	10 Max	USP 47
Sulfate, ppm *	<20	20 Max	USP 47
Chlorinated Compounds, ppm *	<30	30 Max	USP 47
Fatty Acid and Esters, mL NaOH 0.5N	0.23	1.0 Max	USP 47
Assay, %	99.83	99.0 - 101.0	USP 47
Diethylene Glycol, % *	<0.10	0.10 Max	USP 47
Ethylene Glycol, % *	<0.10	0.10 Max	USP 47
Water Content, %	0.08	0.30 Max	USP 47 Methode Ic
Individual Impurities, % *	<0.1	0.1 Max	USP 47
Total Impurities, % *	<1.0	1.0 Max	USP 47
Arsenic, ppm **	Not Detected	0.1 Max	ICP
Cadmium, ppm **	Not Detected	0.1 Max	ICP
Lead, ppm **	Not Detected	0.1 Max	ICP
Mercury, ppm **	Not Detected	0.1 Max	ICP

INFORMATION

: -*: Non accredited parameters
: -**: Based on test result from Accredited independent test laboratory

Prepared by,

Date : 31 July 2026



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Certificate No. : 012/QFS/MKT/RG/BMRD/VII/26

CERTIFICATE OF ANALYSIS

Date : 28-Jul-26
Product Name : Refined Glycerine
Batch : CKR 26209 AA

Parameter	Result	Specification	Method
Appearance	Clear and Transparent	Clear and Transparent	USP 47
Glycerine Content, %	99.92	99.70 Min	Calculation
Identification A by IR *	Pass	Pass	USP 47
Identification C by GC *	Pass	Pass	USP 47
Specific Gravity (25/25 OC) *	1.2604	1.2490 Min	USP 47
Color (Pt-Co)	3.7	5.0 Max	ISO 6271-2015
Residue on Ignition, % *	<0.01	0.01 Max	USP 47
Chlorides, ppm *	<10	10 Max	USP 47
Sulfate, ppm *	<20	20 Max	USP 47
Chlorinated Compounds, ppm *	<30	30 Max	USP 47
Fatty Acid and Esters, mL NaOH 0.5N	0.30	1.0 Max	USP 47
Assay, %	99.92	99.0 - 101.0	USP 47
Diethylene Glycol, % *	<0.10	0.10 Max	USP 47
Ethylene Glycol, % *	<0.10	0.10 Max	USP 47
Water Content, %	0.08	0.30 Max	USP 47 Methode Ic
Individual Impurities, % *	<0.1	0.1 Max	USP 47
Total Impurities, % *	<1.0	1.0 Max	USP 47
Arsenic, ppm **	Not Detected	0.1 Max	ICP
Cadmium, ppm **	Not Detected	0.1 Max	ICP
Lead, ppm **	Not Detected	0.1 Max	ICP
Mercury, ppm **	Not Detected	0.1 Max	ICP

INFORMATION : -*: Non accredited parameters
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Prepared by,
Date : 31 July 2026



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Certificate No. : 013/QFS/MKT/RG/BMRD/VII/26

CERTIFICATE OF ANALYSIS

Date : 30-Jul-26
Product Name : Refined Glycerine
Batch : CKR 26210 AB

Parameter	Result	Specification	Method
Appearance	Clear and Transparent	Clear and Transparent	USP 47
Glycerine Content, %	99.92	99.70 Min	Calculation
Identification A by IR *	Pass	Pass	USP 47
Identification C by GC *	Pass	Pass	USP 47
Specific Gravity (25/25 OC) *	1.2613	1.2490 Min	USP 47
Color (Pt-Co)	3.9	5.0 Max	ISO 6271-2015
Residue on Ignition, % *	<0.01	0.01 Max	USP 47
Chlorides, ppm *	<10	10 Max	USP 47
Sulfate, ppm *	<20	20 Max	USP 47
Chlorinated Compounds, ppm *	<30	30 Max	USP 47
Fatty Acid and Esters, mL NaOH 0.5N	0.26	1.0 Max	USP 47
Assay, %	99.78	99.0 - 101.0	USP 47
Diethylene Glycol, % *	<0.10	0.10 Max	USP 47
Ethylene Glycol, % *	<0.10	0.10 Max	USP 47
Water Content, %	0.08	0.30 Max	USP 47 Methode Ic
Individual Impurities, % *	<0.1	0.1 Max	USP 47
Total Impurities, % *	<1.0	1.0 Max	USP 47
Arsenic, ppm **	Not Detected	0.1 Max	ICP
Cadmium, ppm **	Not Detected	0.1 Max	ICP
Lead, ppm **	Not Detected	0.1 Max	ICP
Mercury, ppm **	Not Detected	0.1 Max	ICP

INFORMATION

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