Translation from Ukrainian into English

MINISTRY OF ECONOMY

STATE ENTERPRISE "IVANO-FRANKIVSK SCIENTIFIC AND PRODUCTION CENTER FOR STANDARDIZATION, METROLOGY AND CERTIFICATION"
The Testing Center is accredited for technical competence and independence,
Accreditation Certificate № 20098 of June 20, 2024

Address: 127 Vovchynetska Street,
76006 Ivano-Frankivsk, phone: 535640

"APPROVED"
by Head of the Testing Center
/signature/ Halyna HURYK
on September 29, 2025
Seal: Ivano-Frankivsk Scientific and Production Center for Standardization, Metrology and Certification

TEST REPORT No 3659

Sample: White crystal sugar of category I, made of sugar beets,
date of manufacture: September 11, 2025 to September 18, 2025, batch size – 10,000 tons

RD (Regulatory Document) for the product: DSTU 4623:2023 'Sugar. Technical Specifications', HN 6.6.1.1-130-2006, DSanPIN 8.8.1.2.3.4-000-2001, additional manufacturer's requirements

Customer: CAB SE "LVIVSTANDARTMETROLOGIA"

Manufacturer: RADEKHIVSKIY SUGAR LLC, 39 Yunosti Avenue, Village of Pavliv, Sheptytskyi District, Lviv Region

Sampling date: 22Sep2025

Sample receipt date: 22Sep2025

Sample description and identification: The sample is packed in zip-lock bags, identified based on appearance indicators.

Sample condition: Satisfactory for testing. **Sample quantity:** 2.0 kg

Test date(s): 22Sep 2025 - 29Sep 2025

Test temperature: 20.1-20.0°C

Test equipment: Spectrometer ICAP 7200 Duo, beta-radiation energy spectrometer СЕБ(SEB)-01-150, balance Radwag PS 510.R1, microplate photometer Multiscan FC, drying cabinet ШСС(ShSS)-80 p, electronic balance ТВЕ-0.21-0.001, pH meter AD 1030, dry air thermostat ТС-80, laboratory electronic balance КВ 360-3N, adjustable volume pipette Sartorius, polarimeter СУ(SU)-4, spectrophotometer ULAB 102, ion meter И-160 МИ (Y-160 MY), [chromatograph] ЦВЕТ (TSVET) 500.

Additional Information: Sampled by the representative of the Conformity Assessment Department Mykhailo Dzindzilevych in the presence of the Customer's representative Halyna Voloshyn. The Customer warrants that the sampling was carried out according to the RD for the product.

Note: - the test report applies to the tested sample only;
- the test report is not subject to full and partial reprint, or other forms of reproduction without permission of the Testing Center.

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Test Results Table:

Name of indicator, units of measurement	Indicator value		RD for test methods	Uncertainty of measure-ment*
	According to RD	In fact		
Organoleptic Indicators				
Appearance	White, clean, without stains and impurities. A yellow tint is allowed for semi-white sugar... Crystal sugar should be loose, without lumps.	Conforms	DSTU 4624:2006	-
Taste and smell	Sweet, without foreign smell and off-flavor, both in dry sugar and in its aqueous solution.	Conforms	DSTU 4624:2006	-
Purity of the solution	The sugar solution must be clear, without insoluble sediment or mechanical and other impurities.	Conforms	DSTU 4624:2006	-
Physical and Chemical Indicators				
Polarization, %, no less than	99.7	99.94	DSTU 3661-2023	-
Invert sugar, %, no more than: to the product amount	0.04	0.016	DSTU 3945-2023	-
Moisture (loss on drying), %, to the product amount, no more than	0.06	0.03	DSTU 3659-2023	-
Conductivity ash (in dry matter), no more than, %	0.027	0.007	DSTU 4872:2023	-
Chromaticity in solution, no more than, ICUMSA units	45.0	27	DSTU 4866:2007	-
Turbidity, no more than, ICUMSA units	20.0	4.2	DSTU 4866:2007	-
Iron impurities content, % to the product amount, no more than	0.0003	0.0002	DSTU 4244:2003	-
Starch content, mg/kg, no more than	15.0	less than 1.0	DSTU 4865:2007	-
pH of the sugar aqueous solution, units	4-8.2	7.0	Manual 'Laboratory Tutorial for Sugar Refineries Employees'	-
Toxic Elements				
Lead, mg/kg, no more than	0.1	less than 0.008	DSTU EN ISO 11885:2019 MG TC-56:2023 of 04Aug2023	-
Cadmium, mg/kg, no more than	0.05	0.011	DSTU EN ISO 11885:2019 MG TC-56:2023 of 04Aug2023	-
Arsenic, mg/kg, no more than	0.1	less than 0.001	DSTU EN ISO 11885:2019 MG TC-56:2023 of 04Aug2023	-
Mercury, mg/kg, no more than	0.01	less than 0.001	DSTU EN ISO 11885:2019 MG TC-56:2023 of 04Aug2023	-
Copper, mg/kg, no more than	1.0	less than 0.001	DSTU EN ISO 11885:2019 MG TC-56:2023 of 04Aug2023	-
Iron, mg/kg, no more than	1.0	0.861	DSTU EN ISO 11885:2019 MG TC-56:2023 of 04Aug2023	-
Sulphur dioxide content, mg/kg, no more than	6.0	less than 0.01	DSTU 4322:2004**	-

Radiological Indicators				
Cesium-137 specific activity, Bq/kg, no more than	50.0	8.9	MG MoH 446 of 11Aug2008 MP of RDPE 'AKP' of 15Jun1998	3.55
Strontium-90 specific activity, Bq/kg, no more than	30.0	7.7	MG MoH 446 of 11Aug2008 MP of RDPE 'AKP' of 15Jun1998	3.1
Conformity indicator B	-	0.43	HN 6.6.1.1.-130-2006 Par. 2.7	-
Absolute error UB	≤0.4	0.14	HN 6.6.1.1.-130-2006 Par. 2.8	-
Acceptance criterion, B+0.6UB	≤1.0	0.52	HN 6.6.1.1.-130-2006 Par. 2.9	-
Pesticides				
Residue of DDT, mg/kg, no more than	0.005	less than 0.001	DSTU EN 12393-1.2.3:2003	-
Residue of HCH, mg/kg, no more than	0.005	less than 0.001	DSTU EN 12393-1.2.3:2003	-
Mass fraction of hexachlorane, mg/kg, no more than	0.005	less than 0.001	DSTU EN 12393-1.2.3:2003	-
Microbiological Indicators				
QMAFAnM, CFU in 10 g, no more than	$2.0x10^2$	$4x10^1$	DSTU 8446:2015	-
Molds, CFU in 10 g, no more than	1.0x10	less than 10	DSTU 8447:2015	-
Yeast, CFU in 10 g, no more than	1.0x10	less than 10	DSTU 8447:2015	-
Bacteria of the E. coli group (coliforms) in 1g	Not permitted	Not detected	GOST 30518-97	-
Pathogenic microorganisms, including bacteria of the genus Salmonella, in 25 g	Not permitted	Not detected	DSTU EN 12824:2004	-
Listeria monocytogenes, CFU in 1 g	Not permitted	Not detected	DSTU ISO 11290-1:2003	-

End of the test results table.
*At the Customer's request,
**RD is not included in the accreditation scope.

Responsible executors:	Leading Engineer	*/signature/*	Halyna HURYK
	Leading Engineer	*/signature/*	Uliana STAMBULSKA
	I Category Engineer	*/signature/*	Khrystyna-Nadiia MAISTRYSHYN
	I Category Microbiologist	*/signature/*	Tetiana ZLYDEN
	II Category Engineer	*/signature/*	Silviia KHODAN
The Report was prepared by:	I Category Microbiologist	*/signature/*	Tetiana ZLYDEN

End of the test report.

This translation has been performed by me, a certified translator Lyudmyla Burtnyk
The translation corresponds to the original.
October 07, 2025

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Агентство іноземних мов
Галицький перекладач
Вірність перекладу засвідчується
Accuracy of the translation is certified
October 07, 2025
Підпис
Signature

БУРТНИК Людмила Василівна