## **CERTIFICATE OF ANALYSIS**

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## L-MALIC ACID (E296)

**CAS No.:** 97-67-6 / **Batch No.:** CS12968 / **Inspection basis:** GB1886.40-2015

Packing: 25Kg×216 / Quantity: 5.4t / Manufacturing date: 09.11.2024 / Expiry date: 08.11.2027

Test Item	Specification	Result	Status
Sensory requirements			
Colour	White	White	$\checkmark$
Shape	Crystal or crystalline powder	Crystalline powder	<b>√</b>
Odor	Special sour taste	Special sour taste	$\checkmark$
Chemical analysis			
L-Malic acid (C <sub>4</sub> H <sub>6</sub> O <sub>5</sub> ) Assay	<i>i</i> ≥99.0%	99.2%	$\checkmark$
Specific rotation [α] <sub>D</sub> (20°C)	-1.6°~-2.6°	-2.0°	$\checkmark$
Residue on ignition	≤0.1%	0.03%	$\checkmark$
State of solution	Pass	Qualified	$\checkmark$
Sulfate [SO <sub>4</sub> ]	≤0.02%	<0.02%	$\checkmark$
Chloride [Cl]	≤0.004%	<0.004%	$\checkmark$
Fumaric acid	≤0.5%	0.05%	$\checkmark$
Maleic acid	≤0.05%	<0.01%	$\checkmark$
Heavy metals [as Pb]	≤10.0 mg/kg	<10.0 mg/kg	$\checkmark$
Arsenic [as As]	≤2.0 mg/kg	<2.0 mg/kg	$\checkmark$
Lead [Pb]	≤2.0 mg/kg	<2.0 mg/kg	$\checkmark$

**Conclusion:** QUALIFIED

This product is manufactured according to ISO9001 quality standards and complies with food grade specifications. The Certificate of Analysis is based on the documentation provided by the manufacturer.

**Issue Date:** 08.05.2025

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## **Quality Control Department Technical Director**

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