

Certificate of Analysis (COA)



HAFEZ VARESH
CHEMICAL INDUSTRIES GROUP
مجمع تولیدی حافظ وارث (شماره ۱۳۸۵)

Product: Glyoxylic Acid
Chemical Name: Oxoacetic acid
CAS No.: 298-12-4
Molecular Formula: C₂H₂O₃
Molecular Weight: 74.04 g/mol
Grade: Laboratory Grade (High Purity)
Batch No.: GA-L2401
Date of Analysis: 03 Nov 2025
Analyst: QC Department – Hafez Varesht Co.

1. Physical & Chemical Properties

Parameter	Specification	Result	Method
Appearance	Colorless to pale yellow liquid	Complies	Visual
Odor	Slight, pungent odor	Complies	Sensory
Purity (Titration)	≥ 99.5 %	99.8 %	Titrimetric
Density (20°C)	1.26 – 1.28 g/cm ³	1.27 g/cm ³	ASTM D4052
pH (1% solution)	1.2 – 2.0	1.5	pH Meter
Moisture (Karl Fischer)	≤ 0.2 %	0.1 %	ASTM E203
Formic Acid	≤ 0.3 %	0.15 %	HPLC
Oxalic Acid	≤ 0.2 %	0.05 %	HPLC
Color (APHA)	≤ 50	20	ASTM D1209
Heavy Metals (as Pb)	≤ 10 ppm	< 5 ppm	ICP-OES
Residue on Evaporation	≤ 0.1 %	0.04 %	Gravimetric
Chloride Content	≤ 0.01 %	0.005 %	Titrimetric

2. Safety & Storage

Property	Specification
UN Number	3265 (Corrosive Liquid, Acidic, Organic, n.o.s.)
HS Code	29180010
Storage Conditions	Store tightly closed in a cool, dry, and well-ventilated area away from moisture and heat sources.
Shelf Life	24 months under recommended storage conditions.
Handling	Use with protective gloves, goggles, and in a fume hood.

3. Certification

This product has been analyzed and found to comply with the specifications stated above.
All analytical methods are traceable to international standards.

Authorized by:
QC Manager – Hafez Varesh Co.



For laboratory and R&D use only. Not for drug, household, or food applications.

دانش بنیان