



>>Entry Name: Glyoxylic acid, 8Cl

Synonym(s): Oxoacetic acid, 9Cl. Glyoxalic acid. Aldehydoformic acid. Formylformic acid. Oxalaldehydic acid

CAS Registry Number: 298-12-4

Related CAS Registry Numbers(s): 563-96-2 2706-75-4

Extra CAS Registry Numbers(s): 6000-59-5

OHCCOOH

Molecular Formula: C<sub>2</sub>H<sub>2</sub>O<sub>3</sub>

Molecular Weight: 74.036

Accurate Mass: 74.000395

Percentage Composition: C 32.45%; H 2.72%; O 64.83%

Biological Source: Found in plant and animal tissues. Prod. by *Aspergillus niger* and other microorganisms

Use/Importance: Can replace HCHO in Mannich reactions and ozonolyses. The acetal polymer Na salt is used as a detergent builder

Physical Description: V. deliquescent prisms giving yellow aq. soln.

Melting Point: Mp 104-107° (sinters from 94°)

Solubility: V. sol. H<sub>2</sub>O; spar. sol. EtOH, Et<sub>2</sub>O

pKa Value: pK<sub>a</sub> 2.32

Other Data: Slowly reduces NH<sub>3</sub>.AgNO<sub>3</sub>. Forms a monohydrate, Mp 50°, and a hemihydrate, Mp 70-75°. Available coml. as an aq. soln.

Hazard & Toxicity: Eye, skin and mucous membrane irritant

Aldrich: 26015-0

Fluka: 50711

Sigma: G1134

>>Derivative: Oxime

>>Derivative: Semicarbazone

CAS Registry Number: 928-73-4

Melting Point: Mp 240 dec.°

>>Derivative: Thiosemicarbazone

Synonym(s): [(Aminothioxomethyl)hydrazono]acetic acid, 9Cl

CAS Registry Number: 928-74-5

Molecular Formula: C<sub>3</sub>H<sub>5</sub>N<sub>3</sub>O<sub>2</sub>S

Molecular Weight: 147.157

Accurate Mass: 147.010247

Percentage Composition: C 24.49%; H 3.42%; N 28.55%; O 21.74%; S 21.79%

Use/Importance: Used as 0.5mM aq. soln. for catalytic detn. of Rh(III)

Physical Description: Cryst.

Solubility: Sol. H<sub>2</sub>O, EtOH

>>Derivative: Me ester

Synonym(s): Methyl glyoxylate

CAS Registry Number: 922-68-9

Molecular Formula: C<sub>3</sub>H<sub>4</sub>O<sub>3</sub>

Molecular Weight: 88.063

Accurate Mass: 88.016045

Percentage Composition: C 40.92%; H 4.58%; O 54.50%

Boiling Point: Bp<sub>201</sub> 45-50°

Other Data: Has been polym. to give an acetal polymer

>>Derivative: Me ester, 2,4-dinitrophenylhydrazone

CAS Registry Number: 28833-53-6

Melting Point: Mp 148-149°