



>>Entry Name: 3-Formyl-4-hydroxybenzoic acid, 9CI

Synonym(s): 4-Hydroxyisophthalaldehydic acid, 8CI. 5-Carboxysalicylaldehyde

CAS Registry Number: 584-87-2

Structure by analogy with 2-Formyl-3-hydroxybenzoic acid, [MNP50-Y](#)

Molecular Formula: $C_8H_6O_4$

Molecular Weight: 166.133

Accurate Mass: 166.02661

Percentage Composition: C 57.84%; H 3.64%; O 38.52%

Physical Description: Needles by subl.

Melting Point: Mp 244-245°

Solubility: Sol. hot H_2O

Other Data: Gives a yellow colour with sodium hydroxide, and a dark red colour with ferric chloride

>>Derivative: Phenylhydrazone

Physical Description: Yellow needles (EtOH)

Melting Point: Mp 257-258 dec.°

>>Derivative: Thiosemicarbazone

Physical Description: Solid

Melting Point: Mp 270°

>>Derivative: Me ester

CAS Registry Number: 24589-99-9

Molecular Formula: $C_9H_8O_4$

Molecular Weight: 180.16

Accurate Mass: 180.04226

Percentage Composition: C 60.00%; H 4.48%; O 35.52%

Use/Importance: Displays antimicrobial activity against Gram positive and negative bacteria, and antifungal activity

Physical Description: Needles (MeOH)

Melting Point: Mp 78-80°

>>Derivative: Et ester

CAS Registry Number: 82304-99-2

Molecular Formula: $C_{10}H_{10}O_4$

Molecular Weight: 194.187

Accurate Mass: 194.05791

Percentage Composition: C 61.85%; H 5.19%; O 32.96%

Physical Description: Solid

Melting Point: Mp 69-70°

>>Derivative: Nitrile

Synonym(s): 5-Cyano-2-hydroxybenzaldehyde. 5-Cyanosalicylaldehyde

CAS Registry Number: 74901-29-4

Molecular Formula: $C_8H_5NO_2$

Molecular Weight: 147.133

Accurate Mass: 147.032029

Percentage Composition: C 65.31%; H 3.43%; N 9.52%; O 21.75%

Physical Description: Solid (H_2O)

Melting Point: Mp 180-182° (148-149°)

>>Derivative: Me ether

Synonym(s): 3-Formyl-4-methoxybenzoic acid. 4-Methoxyisophthalaldehydic acid

CAS Registry Number: 91420-99-4

Molecular Formula: $C_9H_8O_4$

Molecular Weight: 180.16

Accurate Mass: 180.04226

Percentage Composition: C 60.00%; H 4.48%; O 35.52%

Physical Description: Small plates (EtOH)

Melting Point: Mp 244-245°