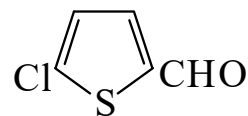




>>Entry Name: 5-Chloro-2-thiophenecarboxaldehyde, 9Cl

Synonym(s): 2-Chloro-5-formylthiophene



CAS Registry Number: 7283-96-7

Molecular Formula: C₅H₃ClOS

Molecular Weight: 146.597

Accurate Mass: 145.959312

Percentage Composition: C 40.97%; H 2.06%; Cl 24.18%; O 10.91%; S 21.87%

Physical Description: Liq.

Boiling Point: Bp₁₃ 91-92°. Bp_{0.5} 52-53°

Refractive Index: n_D²⁵ 1.6017

Aldrich: 44323-9

>>Derivative: Oxime

CAS Registry Number: 14345-95-0

Molecular Formula: C₅H₄ClNOS

Molecular Weight: 161.611

Accurate Mass: 160.970211

Percentage Composition: C 37.16%; H 2.49%; Cl 21.94%; N 8.67%; O 9.90%; S 19.84%

Physical Description: Solid (H₂O)

Melting Point: Mp 141°

>>Derivative: Phenylhydrazone

CAS Registry Number: 66715-50-2

Use/Importance: Displays herbicidal activity against *Botrytis cinera*, *Sphaerotheca fuliginea* and *Collectrichum lagenarium*

Physical Description: Cryst. (EtOH)

Melting Point: Mp 109-110°

>>Derivative: 2,4-Dinitrophenylhydrazone

CAS Registry Number: 66715-51-3

Use/Importance: Displays herbicidal activity against *B. cinera*, *S. fuliginea* and *C. lagenarium*

Physical Description: Cryst.

>>Derivative: Semicarbazone

Physical Description: Cryst.

Melting Point: Mp 218-219° (199-200°)

>>Derivative: Thiosemicarbazone

Physical Description: Prisms (EtOH)

Melting Point: Mp 163°

>>Derivative: 2-Benzothiazolyhydrazone

CAS Registry Number: 61293-48-9

Molecular Formula: C₁₂H₈ClN₃S₂

Molecular Weight: 293.8

Accurate Mass: 292.984814

Percentage Composition: C 49.06%; H 2.74%; Cl 12.07%; N 14.30%; S 21.83%

Use/Importance: Used as a 0.082% soln. in EtOH for extraction-photometric detn. of Co (C₆H₆, λ_{max} 423 nm, ε 75000), Cu (λ_{max} 433 nm, ε 45000), Ni (λ_{max} 420 nm)

Physical Description: Orange-red cryst. (EtOH)

Solubility: Sol. EtOH, dioxan, C₆H₆; insol. H₂O

pK_a Value: pK_a 11 (25°, dioxan)

References: