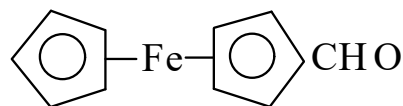




>>Entry Name: Formylferrocene, 9CI

Synonym(s): Ferrocenecarboxaldehyde. Ferrocenealdehyde



CAS Registry Number: 12093-10-6

Molecular Formula: $C_{11}H_{10}FeO$

Molecular Weight: 214.046

Accurate Mass: 214.008104

Percentage Composition: C 61.73%; H 4.71%; Fe 26.09%; O 7.47%

Source/Synthesis: Synth. from ferrocene, PhNMeCHO and $POCl_3$

Physical Description: Red plates (petrol)

Melting Point: Mp 123.5°

Boiling Point: Subl. 30-40° *in vacuo*

Other Data: Possesses plastic crystalline phase between 44° and Mp

Aldrich: 12245-9

Fluka: 46261

Sigma: F8252

>>Derivative: Oxime, α -form

CAS Registry Number: 12261-28-8

Molecular Formula: $C_{11}H_{11}FeNO$

Molecular Weight: 229.061

Accurate Mass: 229.019003

Percentage Composition: C 57.68%; H 4.84%; Fe 24.38%; N 6.11%; O 6.98%

Physical Description: Copper-coloured plates (petrol)

Melting Point: Mp 96-99°

>>Derivative: Oxime, β -form

Physical Description: Orange prisms (C_6H_6)

Melting Point: Mp 155-157°

>>Derivative: Semicarbazone

Physical Description: Orange flakes (EtOH)

Melting Point: Mp 217-219 dec.°

>>Derivative: Azine

Synonym(s): 1,1"-[Azinobis(methylene)]bisferrocene, 9CI. Ferrocenecarboxaldehyde azine, 8CI

CAS Registry Number: 42612-90-8

Molecular Formula: $C_{22}H_{20}Fe_2N_2$

Molecular Weight: 424.107

Accurate Mass: 424.032526

Percentage Composition: C 62.31%; H 4.75%; Fe 26.34%; N 6.61%

Source/Synthesis: Synth. from FcCHO + N_2H_4

Physical Description: Red-brown cryst. (DMF)

Melting Point: Mp 245°

>>Derivative: Dithiane

Synonym(s): 1,3-Dithian-2-ylferrocene, 9CI. 2-Ferrocenyl-1,3-dithiane

CAS Registry Number: 54762-67-3

Molecular Formula: $C_{14}H_{16}FeS_2$

Molecular Weight: 304.259

Accurate Mass: 304.004279

Percentage Composition: C 55.27%; H 5.30%; Fe 18.36%; S 21.08%

Source/Synthesis: Synth. from FcCHO + $HS(CH_2)_3SH/HCl$

Use/Importance: Used in ferrocenyl ketone syntheses

Physical Description: Brilliant orange needles (hexane)

Melting Point: Mp 110-110.5°

References: