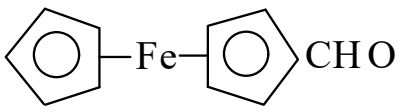
>>**Entry Name: Formylferrocene,** 9CI
Synonym(s): Ferrocenecarboxaldehyde. Ferrocenealdehyde



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: