

Ferrocene, benzoyl-

Other names:

Benzoyl ferrocene
Benzoyldicyclopentadienyliron
Ferrecenophenone
Ferrocenyl phenyl ketone
Iron(II), (benzoylcyclopentadienyl)cyclopentadienyl-
Ketone, ferrocenyl phenyl
Methanone, ferrocenylphenyl-
Monobenzoylferrocene
NSC 54800
benzoylferrocene

Inchi:

InChI=1S/C12H9O.C5H5.Fe/c13-12(11-8-4-5-9-11)10-6-2-1-3-7-10;1-2-4-5-3-1;/h1-9H;1-

InchiKey:

JJHHJZCYDPLHIL-UHFFFAOYSA-N

Formula:

C₁₇H₁₄FeO

SMILES:

O=C(c1ccccc1)C12C3C4C5C1[Fe]45321678C2C1C6C7C28

Mol. weight [g/mol]:

290.14

CAS:

1272-44-2

Physical Properties

Property code	Value	Unit	Source
hfus	29.90	kJ/mol	Vapour pressures and enthalpies of vaporization of a series of the ferrocene derivatives
hfus	29.90	kJ/mol	The heat capacities and thermodynamic functions of some derivatives of ferrocene
hsub	116.00 ± 6.00	kJ/mol	NIST Webbook
hsub	119.90 ± 0.70	kJ/mol	NIST Webbook
hsub	116.30 ± 6.00	kJ/mol	NIST Webbook
hvap	98.20 ± 0.30	kJ/mol	NIST Webbook
pc	1590.00	kPa	Critical point measurement of ferrocene and some of its derivatives
tf	384.20	K	NIST Webbook

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cps	387.90	J/mol×K	298.00	NIST Webbook
hfust	29.90	kJ/mol	189.00	NIST Webbook

Sources

NIST Webbook:

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C1272442&Units=SI>

Critical point measurement of ferrocene and some of its derivatives: Vapour pressures and enthalpies of vaporization of a series of the ferrocene derivatives and thermodynamic functions of some derivatives of ferrocene:

<https://www.doi.org/10.1016/j.fluid.2012.03.021>

<https://www.doi.org/10.1016/j.jct.2006.09.001>

<https://www.doi.org/10.1016/j.jct.2007.12.003>

Legend

cps:	Solid phase heat capacity
hfus:	Enthalpy of fusion at standard conditions
hfust:	Enthalpy of fusion at a given temperature
hsub:	Enthalpy of sublimation at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
pc:	Critical Pressure
tf:	Normal melting (fusion) point

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