Cobalt, tris(2,4-pentanedionato-o,o')-

Other names:	Cobalt acetylacetonate
	Cobalt triacetylacetonate
	Cobalt(3+) acetylacetonate
	Cobalt(III) 2,4-pentanedionate
	Cobalt(III) acetylacetonate
	Cobalt, tris(2,4-pentanedionato)-
	Cobalt, tris(2,4-pentanedionato-«kappa»O,«kappa»O')-, (OC-6-11)-
	Cobalt, tris(2,4-pentanedionato-«kappa»O2,«kappa»O4)-, (OC-6-11)-
	Cobaltic acetylacetonate
	Cobaltic trisacetylacetonate
	NSC 43621
	Tris(2,4-pentanedionato)cobalt
	Tris(acetylacetonato)cobalt
	Tris(acetylacetonato)cobalt(III)
	Tris(acetylacetone)cobalt
	cobalt triacetoacetate
	cobalt tris(acetylacetonate)
	cobalt, tris(2,4-pentanedionato-O,O')-, (oc-6-11)-
	tris(pentane-2,4-dionato-O,O')cobalt
Inchi:	InChI=1S/3C5H8O2.Co/c3*1-4(6)3-5(2)7;/h3*3,6H,1-2H3;/q;;;+3/p-3/b3*4-3-;
InchiKey:	RHCQEPWEBDOALW-LNTINUHCSA-K
Formula:	C15H21CoO6
SMILES:	CC1=CC(C)=[O]->[Co]23([O]1)([O]C(C)=CC(C)=[O]->2)[O]C(C)=CC(C)=[O]->3
Mol. weight [g/mol]:	356.26

Physical Properties

Property code	Value	Unit	Source
ea	2.04 ± 0.09	eV	NIST Webbook
hsub	134.60 ± 4.00	kJ/mol	NIST Webbook
ie	7.56 ± 0.05	eV	NIST Webbook
ie	7.10 ± 0.20	eV	NIST Webbook
ie	10.70 ± 0.30	eV	NIST Webbook
ie	7.80 ± 0.05	eV	NIST Webbook
ie	7.52	eV	NIST Webbook
ie	7.52 ± 0.07	eV	NIST Webbook

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
hfust	93.90	kJ/mol	478.00	NIST Webbook
hsubt	138.00	kJ/mol	448.00	NIST Webbook
hsubt	142.60 ± 6.90	kJ/mol	471.00	NIST Webbook
hsubt	107.10	kJ/mol	390.00	NIST Webbook

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C21679469&Units=SI
Cheméo Relay (1.0):	
Cheméo Relay (1.0, beta):	
Diffusion coefficients of metal acetylacetonates in supercritical carbon dioxide:	https://www.doi.org/10.1016/j.fluid.2010.02.036
Measurements of binary diffusion coefficients for metal complexes in organic solvents by the Taylor dispersion method:	https://www.doi.org/10.1016/j.fluid.2010.06.003
Solubilities of cobalt(III) and chromium(III) acetylacetonates in supercritical carbon dioxide at elevated temperatures:	https://www.doi.org/10.1016/j.fluid.2013.02.004

Legend

ea:	Electron affinity
hfust:	Enthalpy of fusion at a given temperature
hsub:	Enthalpy of sublimation at standard conditions
hsubt:	Enthalpy of sublimation at a given temperature
ie:	Ionization energy