

cadmium

Inchi:	InChI=1S/Cd
InchiKey:	BDOSMKKIYDKNTQ-UHFFFAOYSA-N
Formula:	Cd
SMILES:	[Cd]
Mol. weight [g/mol]:	112.41
CAS:	7440-43-9

Physical Properties

Property code	Value	Unit	Source
hf	111.80 ± 0.20	kJ/mol	NIST Webbook
ie	8.99	eV	NIST Webbook
ie	8.99 ± 0.00	eV	NIST Webbook
ie	8.99	eV	NIST Webbook
ie	8.99 ± 0.00	eV	NIST Webbook
ie	9.07 ± 0.07	eV	NIST Webbook
ie	8.99	eV	NIST Webbook
sgb	167.75 ± 0.00	J/mol×K	NIST Webbook
ss	51.80 ± 0.15	J/mol×K	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.56233e+01
Coeff. B	-1.09548e+04
Coeff. C	-4.47100e+01
Temperature range (K), min.	393.00
Temperature range (K), max.	1040.15

Sources

Enthalpy of mixing in the Ag-Cd-In ternary liquid phase: A calorimetric and thermodynamic investigation of zinc and cadmium thermal conductivities of solid and liquid phases in Pb Cd and Sn Zn binary eutectic alloys:	https://www.doi.org/10.1016/j.jct.2016.12.005
The Yaws Handbook of Vapor Pressure:	https://www.doi.org/10.1016/j.jct.2017.07.020
Thermal conductivity and interfacial energy of solid Bi solution in the Bi-Pb_2Zn_3 eutectic system	https://www.doi.org/10.1016/j.tca.2007.01.009
Binary eutectic alloys:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C7440439&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Thermal conductivity and interfacial energy of solid Bi solution in the Bi-Pb_2Zn_3 eutectic system	https://www.doi.org/10.1016/j.fluid.2010.02.029
Binary eutectic alloys:	https://www.doi.org/10.1016/j.jct.2013.07.001

Legend

hf:	Enthalpy of formation at standard conditions
ie:	Ionization energy
pvap:	Vapor pressure
s_gb:	Molar entropy at standard conditions (1 bar)
ss:	Solid phase molar entropy at standard conditions

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