

magnesium oxide

Other names:	Magnesium monoxide magnesia (MgO) magnesium oxide (MgO) magnesium(II) oxide
Inchi:	InChI=1S/Mg.O
InchiKey:	CPLXHLVBOLITMK-UHFFFAOYSA-N
Formula:	MgO
SMILES:	O=[Mg]
Mol. weight [g/mol]:	40.30
CAS:	1309-48-4

Physical Properties

Property code	Value	Unit	Source
affp	988.00	kJ/mol	NIST Webbook
basg	959.40	kJ/mol	NIST Webbook
hfs	-601.60 ± 0.30	kJ/mol	NIST Webbook
ie	8.76 ± 0.22	eV	NIST Webbook
ie	9.70	eV	NIST Webbook
ss	26.95 ± 0.15	J/mol×K	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.39253e+01
Coeff. B	-3.19189e+04
Coeff. C	-4.43610e+02
Temperature range (K), min.	3105.00
Temperature range (K), max.	5950.00

Sources

Thermodynamic study of MgO-Sb₂O₃ system and the stability functions of MgO-Sb₂O₃ system
The Yaws Handbook of Vapor Pressure
2MgSO₄*MgO*3H₂O:
High-temperature phase equilibria of Cu-O-MgO system in air:
NIST Webbook:

<https://www.doi.org/10.1016/j.jct.2013.12.032>

<https://www.doi.org/10.1016/j.tca.2004.07.006>

<https://www.doi.org/10.1016/j.tca.2015.10.019>

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C1309484&Units=SI>

The Yaws Handbook of Vapor Pressure:

<https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure>

Legend

affp:	Proton affinity
basg:	Gas basicity
hfs:	Solid phase enthalpy of formation at standard conditions
ie:	Ionization energy
pvap:	Vapor pressure
ss:	Solid phase molar entropy at standard conditions

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