

silicon monoxide

Other names:	silicon monooxide
Inchi:	InChI=1S/OSi/c1-2
InchiKey:	LIVNPJMFVYWSIS-UHFFFAOYSA-N
Formula:	OSi
SMILES:	O=[Si]
Mol. weight [g/mol]:	44.08
CAS:	10097-28-6

Physical Properties

Property code	Value	Unit	Source
log10ws	-1.87		Crippen Method
logp	-0.500		Crippen Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
psub	3.00e-06	kPa	1211.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO
psub	1.60e-06	kPa	1229.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO

psub	8.00e-06	kPa	1249.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO
psub	1.30e-05	kPa	1267.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO
psub	2.20e-05	kPa	1281.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO
psub	4.00e-05	kPa	1300.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO
psub	6.00e-05	kPa	1314.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO

psub	9.00e-05	kPa	1329.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO
psub	1.30e-04	kPa	1343.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO
psub	2.00e-04	kPa	1356.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO
psub	2.80e-04	kPa	1370.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO
psub	4.00e-04	kPa	1384.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO

psub	5.00e-04	kPa	1397.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO
psub	7.00e-04	kPa	1409.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO
psub	1.00e-03	kPa	1421.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO
psub	1.30e-03	kPa	1432.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO
psub	1.70e-03	kPa	1443.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO

psub	2.30e-03	kPa	1454.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO
psub	2.90e-03	kPa	1463.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO
psub	3.60e-03	kPa	1474.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO
psub	5.00e-03	kPa	1484.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO
psub	6.00e-03	kPa	1494.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO

psub	7.00e-03	kPa	1503.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO
psub	9.00e-03	kPa	1512.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO
psub	0.01	kPa	1522.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO
psub	0.01	kPa	1530.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO
psub	0.01	kPa	1539.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO

psub	0.02	kPa	1547.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO
psub	0.02	kPa	1555.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO
psub	0.02	kPa	1565.00	Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO
pvap	5.00e-04	kPa	1325.00	Vapor Pressure of Silicon Monoxide
pvap	2.90e-04	kPa	1301.00	Vapor Pressure of Silicon Monoxide
pvap	1.60e-04	kPa	1301.00	Vapor Pressure of Silicon Monoxide
pvap	4.00e-04	kPa	1315.00	Vapor Pressure of Silicon Monoxide
pvap	4.00e-04	kPa	1315.00	Vapor Pressure of Silicon Monoxide
pvap	2.40e-04	kPa	1315.00	Vapor Pressure of Silicon Monoxide
pvap	2.90e-04	kPa	1301.00	Vapor Pressure of Silicon Monoxide
pvap	5.00e-04	kPa	1325.00	Vapor Pressure of Silicon Monoxide
pvap	3.20e-04	kPa	1325.00	Vapor Pressure of Silicon Monoxide

pvap	6.40e-04	kPa	1335.00	Vapor Pressure of Silicon Monoxide
pvap	6.40e-04	kPa	1335.00	Vapor Pressure of Silicon Monoxide
pvap	4.00e-04	kPa	1335.00	Vapor Pressure of Silicon Monoxide
pvap	8.80e-04	kPa	1350.00	Vapor Pressure of Silicon Monoxide
pvap	8.90e-04	kPa	1350.00	Vapor Pressure of Silicon Monoxide
pvap	5.70e-04	kPa	1350.00	Vapor Pressure of Silicon Monoxide
pvap	1.23e-03	kPa	1364.00	Vapor Pressure of Silicon Monoxide
pvap	1.23e-03	kPa	1364.00	Vapor Pressure of Silicon Monoxide
pvap	8.20e-04	kPa	1364.00	Vapor Pressure of Silicon Monoxide
pvap	1.55e-03	kPa	1374.00	Vapor Pressure of Silicon Monoxide
pvap	1.52e-03	kPa	1374.00	Vapor Pressure of Silicon Monoxide
pvap	1.03e-03	kPa	1374.00	Vapor Pressure of Silicon Monoxide
pvap	2.60e-03	kPa	1399.00	Vapor Pressure of Silicon Monoxide
pvap	2.60e-03	kPa	1399.00	Vapor Pressure of Silicon Monoxide
pvap	1.75e-03	kPa	1399.00	Vapor Pressure of Silicon Monoxide
pvap	4.20e-03	kPa	1421.00	Vapor Pressure of Silicon Monoxide
pvap	4.20e-03	kPa	1421.00	Vapor Pressure of Silicon Monoxide
pvap	2.87e-03	kPa	1421.00	Vapor Pressure of Silicon Monoxide
pvap	5.40e-03	kPa	1433.00	Vapor Pressure of Silicon Monoxide

pvap	5.40e-03	kPa	1433.00	Vapor Pressure of Silicon Monoxide
pvap	3.70e-03	kPa	1433.00	Vapor Pressure of Silicon Monoxide
pvap	7.10e-03	kPa	1446.00	Vapor Pressure of Silicon Monoxide
pvap	7.10e-03	kPa	1446.00	Vapor Pressure of Silicon Monoxide
pvap	4.80e-03	kPa	1446.00	Vapor Pressure of Silicon Monoxide
pvap	0.01	kPa	1470.00	Vapor Pressure of Silicon Monoxide
pvap	0.01	kPa	1470.00	Vapor Pressure of Silicon Monoxide
pvap	7.90e-03	kPa	1470.00	Vapor Pressure of Silicon Monoxide
pvap	0.02	kPa	1495.00	Vapor Pressure of Silicon Monoxide
pvap	0.02	kPa	1495.00	Vapor Pressure of Silicon Monoxide
pvap	0.01	kPa	1495.00	Vapor Pressure of Silicon Monoxide
pvap	0.03	kPa	1519.00	Vapor Pressure of Silicon Monoxide
pvap	0.03	kPa	1519.00	Vapor Pressure of Silicon Monoxide
pvap	0.02	kPa	1519.00	Vapor Pressure of Silicon Monoxide

Sources

Vapor Pressure and Evaporation Coefficient Measurements at Elevated Temperatures with a Knudsen Cell and a Quartz Crystal Microbalance: New Data for SiO₂.

Crippen Method:

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<https://www.doi.org/10.1021/je300199a>

<https://www.doi.org/10.1021/je800560b>

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C10097286&Units=SI>

<http://pubs.acs.org/doi/abs/10.1021/ci990307I>

https://www.chemeo.com/doc/models/crippen_log10ws

Legend

log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
psub:	Sublimation pressure
pvap:	Vapor pressure

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