

Dimethyl selenide

Other names:	(CH ₃) ₂ Se Dimethylselenium Methane, selenobis- Methyl selenide Methyl selenium Selenide, dimethyl- Selenium dimethyl
Inchi:	InChI=1S/C2H6Se/c1-3-2/h1-2H3
InchiKey:	RVIXKDRPFPUUOO-UHFFFAOYSA-N
Formula:	C ₂ H ₆ Se
SMILES:	C[Se]C
Mol. weight [g/mol]:	109.03
CAS:	593-79-3

Physical Properties

Property code	Value	Unit	Source
ie	8.40	eV	NIST Webbook
ie	8.36	eV	NIST Webbook
ie	8.40	eV	NIST Webbook
ie	8.40 ± 0.01	eV	NIST Webbook
log10ws	1.80		Crippen Method
logp	0.787		Crippen Method
rinpol	582.00		NIST Webbook
rinpol	514.00		NIST Webbook
sl	210.80	J/mol×K	NIST Webbook
tb	331.00 ± 3.00	K	NIST Webbook
tt	185.14 ± 0.01	K	NIST Webbook

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpl	121.10	J/mol×K	298.15	NIST Webbook
hfust	8.50	kJ/mol	185.10	NIST Webbook
hfust	8.50	kJ/mol	185.14	NIST Webbook

hfust	8.50	kJ/mol	185.10	NIST Webbook
hvapt	31.90	kJ/mol	295.50	NIST Webbook
hvapt	30.30 ± 0.10	kJ/mol	299.00	NIST Webbook
sfust	45.90	J/mol×K	185.14	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.45777e+01
Coeff. B	-3.03016e+03
Coeff. C	-2.58990e+01
Temperature range (K), min.	237.94
Temperature range (K), max.	352.91

Sources

The Yaws Handbook of Vapor Pressure:
Crippen Method:

<https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure>
<http://pubs.acs.org/doi/abs/10.1021/ci9903071>

Crippen Method:

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

NIST Webbook:

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C593793&Units=SI>

Legend

cpl:	Liquid phase heat capacity
hfust:	Enthalpy of fusion at a given temperature
hvapt:	Enthalpy of vaporization at a given temperature
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
sfust:	Entropy of fusion at a given temperature
sl:	Liquid phase molar entropy at standard conditions

tb: Normal Boiling Point Temperature

tt: Triple Point Temperature

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