Ethene, iodo-

Other names:	Vinyl iodide
	iodoethylene
Inchi:	InChI=1S/C2H3I/c1-2-3/h2H,1H2
InchiKey:	GHXZPUGJZVBLGC-UHFFFAOYSA-N
Formula:	C2H3I
SMILES:	C=CI
Mol. weight [g/mol]:	153.95
CAS:	593-66-8

Physical Properties

Property code	Value	Unit	Source
gf	111.92	kJ/mol	Joback Method
hf	117.69	kJ/mol	Joback Method
hfus	4.06	kJ/mol	Joback Method
hvap	28.75	kJ/mol	Joback Method
ie	9.32	eV	NIST Webbook
ie	9.35	eV	NIST Webbook
ie	9.30	eV	NIST Webbook
ie	9.33	eV	NIST Webbook
ie	9.32	eV	NIST Webbook
log10ws	-1.96		Crippen Method
logp	1.565		Crippen Method
mcvol	60.560	ml/mol	McGowan Method
pc	5175.72	kPa	Joback Method
tb	329.20	K	NIST Webbook
tb	330.15 ± 2.00	K	NIST Webbook
tc	546.50	K	Joback Method
tf	168.60	K	Joback Method
vc	0.216	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	62.44	J/mol×K	334.98	Joback Method

cpg	66.16	J/mol×K	370.23	Joback Method
cpg	69.59	J/mol×K	405.49	Joback Method
cpg	72.77	J/mol×K	440.74	Joback Method
cpg	75.71	J/mol×K	475.99	Joback Method
cpg	78.43	J/mol×K	511.25	Joback Method
cpg	80.94	J/mol×K	546.50	Joback Method
dvisc	0.0041256	Pa×s	168.60	Joback Method
dvisc	0.0021302	Pa×s	196.33	Joback Method
dvisc	0.0012954	Pa×s	224.06	Joback Method
dvisc	0.0008790	Pa×s	251.79	Joback Method
dvisc	0.0006441	Pa×s	279.52	Joback Method
dvisc	0.0004993	Pa×s	307.25	Joback Method
dvisc	0.0004037	Pa×s	334.98	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.41879e+01
Coeff. B	-2.85314e+03
Coeff. C	-3.10530e+01
Temperature range (K), min.	236.31
Temperature range (K), max.	352.48

Sources

Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C593668&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

Latest version available from:

https://www.chemeo.com/cid/65-063-0/Ethene-iodo.pdf

Generated by Cheméo on 2024-10-12 05:37:41.236695326 +0000 UTC m=+3292323.873664575.

Cheméo (https://www.chemeo.com) is the biggest free database of chemical and physical data for the process industry.