

1-chloro-3-fluoropropane

Inchi:	InChI=1S/C3H6ClF/c4-2-1-3-5/h1-3H2
InchiKey:	PFDZQZAOZNELDX-UHFFFAOYSA-N
Formula:	C3H6ClF
SMILES:	FCCCCI
Mol. weight [g/mol]:	96.53
CAS:	462-38-4

Physical Properties

Property code	Value	Unit	Source
af	0.3141		Cheméo Relay (1.0)
hf	-291.28	kJ/mol	Cheméo Relay (1.0)
hfus	10.80	kJ/mol	Joback Method
hvap	31.86	kJ/mol	Cheméo Relay (1.0)
ie	11.12	eV	Cheméo Relay (1.0)
log10ws	-0.97		Cheméo Relay (1.0)
logp	1.585		Crippen Method
mcvol	67.140	ml/mol	McGowan Method
pc	3965.51	kPa	Joback Method
tb	348.53	K	Cheméo Relay (1.0)
tc	536.27	K	Cheméo Relay (1.0)
tf	183.29	K	Cheméo Relay (1.0)
vc	0.256	m3/kmol	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	97.56	J/mol×K	304.74	Joback Method
cpg	103.14	J/mol×K	331.68	Joback Method
cpg	108.52	J/mol×K	358.62	Joback Method
cpg	113.71	J/mol×K	385.56	Joback Method
cpg	118.71	J/mol×K	412.49	Joback Method
cpg	123.52	J/mol×K	439.43	Joback Method
cpg	128.15	J/mol×K	466.37	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.66546e+01
Coeff. B	-3.65301e+03
Coeff. C	-3.93260e+01
Temperature range (K), min.	262.52
Temperature range (K), max.	374.96

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Cheméo Relay (1.0):	
Cheméo Relay (1.0, beta):	
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

Legend

af:	Acentric Factor
cpg:	Ideal gas heat capacity
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

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