1-Butanamine, 3-methyl-N,N-bis(3-methylbutyl)-

Other names: Tri(3-methylbutyl)amine
Triisoamylamine
Triisopentylamine
Tris(3-methylbutyl)amine

Inchi: InChI=1S/C15H33N/c1-13(2)7-10-16(11-8-14(3)4)12-9-15(5)6/h13-15H,7-12H2,1-6H3

InchiKey: QKVUSSUOYHTOFQ-UHFFFAOYSA-N

Formula: C15H33N

SMILES: CC(C)CCN(CCC(C)C)CCC(C)C

Mol. weight [g/mol]: 227.43

CAS: 645-41-0

Physical Properties

Property code	Value	Unit	Source
chl	-10277.00	kJ/mol	NIST Webbook
gf	178.88	kJ/mol	Joback Method
hf	-301.24	kJ/mol	Joback Method
hfl	-342.00	kJ/mol	NIST Webbook
hfus	27.06	kJ/mol	Joback Method
hvap	49.86	kJ/mol	Joback Method
log10ws	-3.95		Crippen Method
logp	4.427		Crippen Method
mcvol	232.190	ml/mol	McGowan Method
pc	1439.16	kPa	Joback Method
tb	553.72	K	Joback Method
tc	719.95	K	Joback Method
tf	246.28	K	Joback Method
vc	0.875	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	597.28	J/mol×K	553.72	Joback Method
cpg	617.48	J/mol×K	581.43	Joback Method
cpg	636.81	J/mol×K	609.13	Joback Method

cpg	655.32	J/mol×K	636.84	Joback Method
cpg	673.01	J/mol×K	664.54	Joback Method
cpg	689.92	J/mol×K	692.25	Joback Method
cpg	706.08	J/mol×K	719.95	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.32383e+01
Coeff. B	-3.96426e+03
Coeff. C	-8.24160e+01
Temperature range (K), min.	388.52
Temperature range (K), max.	582.52

Sources

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=C645410&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
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

Legend

chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfl:	Liquid phase enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
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