

2-Methylbenzene-1,4-diamine, tris(heptafluorobutyl)-, isomer 1

Inchi:	InChI=1S/C19H7F21N2O3/c1-5-4-6(41-8(43)11(20,21)14(26,27)17(32,33)34)2-3-7(5)42
InchiKey:	FIFSZKSDWJKWPP-UHFFFAOYSA-N
Formula:	C19H7F21N2O3
SMILES:	Cc1cc(NC(=O)C(F)(F)C(F)(F)C(F)(F)F)ccc1N(C(=O)C(F)(F)C(F)(F)C(F)(F)F)C(=O)C(F)(F)C(F)(F)C(F)(F)F
Mol. weight [g/mol]:	710.24

Physical Properties

Property code	Value	Unit	Source
gf	-4049.79	kJ/mol	Joback Method
hf	-4635.70	kJ/mol	Joback Method
hfus	49.10	kJ/mol	Joback Method
hvap	61.38	kJ/mol	Joback Method
log10ws	-8.83		Crippen Method
logp	7.292		Crippen Method
mvol	316.650	ml/mol	McGowan Method
pc	909.98	kPa	Joback Method
rinpol	1435.00		NIST Webbook
rinpol	1435.00		NIST Webbook
tb	850.58	K	Joback Method
tc	1044.93	K	Joback Method
tf	624.44	K	Joback Method
vc	1.341	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1041.57	J/molxK	850.58	Joback Method
cpg	1050.49	J/molxK	882.97	Joback Method
cpg	1058.74	J/molxK	915.36	Joback Method
cpg	1066.53	J/molxK	947.75	Joback Method
cpg	1074.06	J/molxK	980.15	Joback Method
cpg	1081.51	J/molxK	1012.54	Joback Method
cpg	1089.09	J/molxK	1044.93	Joback Method

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=U378209&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvp:	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
rinp:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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