4-(TRIFLUOROMETHYL)BENZYL ALCOHOL

Other names: p-Trifluoromethylbenzyl alcohol
Benzenemethanol, 4-(trifluoromethyl)-
4-(Trifluoromethyl)benzylic alcohol
Inchi: InChI=1S/C8H7F3O/c9-8(10,11)7-3-1-6(5-12)2-4-7/h1-4,12H,5H2
InchiKey: MOOUWXDQAUXZRG-UHFFFAOYSA-N
Formula: C8H7F3O
SMILES: OCc1ccc(C(F)(F)F)cc1
Mol. weight [g/mol]: 176.14

Physical Properties

Property code	Value	Unit	Source
hf	-775.29	kJ/mol	Cheméo Relay (1.0)
hfus	16.04	kJ/mol	Joback Method
hvap	67.08	kJ/mol	Cheméo Relay (1.0)
ie	9.50	eV	Cheméo Relay (1.0)
log10ws	-1.46		Cheméo Relay (1.0)
logp	2.198		Crippen Method
mcvol	111.000	ml/mol	McGowan Method
pc	3484.76	kPa	Joback Method
tb	456.52	K	Cheméo Relay (1.0)
tc	673.71	K	Cheméo Relay (1.0)
tf	328.59	K	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	251.83	J/mol×K	500.86	Joback Method
cpg	261.52	J/mol×K	531.14	Joback Method
cpg	270.59	J/mol×K	561.42	Joback Method
cpg	279.08	J/mol×K	591.71	Joback Method
cpg	287.01	J/mol×K	621.99	Joback Method
cpg	294.42	J/mol×K	652.27	Joback Method
cpg	301.34	J/mol×K	682.55	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	352.50 ± 0.50	K	0.50	NIST Webbook

Sources

Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Cheméo Relay (1.0):	
Cheméo Relay (1.0, beta):	
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C349951&Units=SI
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

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
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point

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