

Decanedioyl dichloride

Other names:	Sebacoyl chloride Decanedioyl chloride Sebacic acid dichloride Sebacoyl dichloride Sebacyl chloride
Inchi:	InChI=1S/C10H16Cl2O2/c11-9(13)7-5-3-1-2-4-6-8-10(12)14/h1-8H2
InchiKey:	WMPOZLHMGVKUEJ-UHFFFAOYSA-N
Formula:	C10H16Cl2O2
SMILES:	O=C(Cl)CCCCCCCC(=O)Cl
Mol. weight [g/mol]:	239.14
CAS:	111-19-3

Physical Properties

Property code	Value	Unit	Source
gf	-248.38	kJ/mol	Joback Method
hf	-506.37	kJ/mol	Joback Method
hfus	33.25	kJ/mol	Joback Method
hvap	60.12	kJ/mol	Joback Method
log10ws	-3.87		Crippen Method
logp	3.638		Crippen Method
mcvol	179.380	ml/mol	McGowan Method
pc	2212.45	kPa	Joback Method
tb	610.80	K	Joback Method
tc	801.67	K	Joback Method
tf	362.16	K	Joback Method
vc	0.706	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	420.18	J/molxK	610.80	Joback Method
cpg	432.34	J/molxK	642.61	Joback Method
cpg	443.85	J/molxK	674.42	Joback Method
cpg	454.75	J/molxK	706.23	Joback Method

cpg	465.05	J/molxK	738.05	Joback Method
cpg	474.77	J/molxK	769.86	Joback Method
cpg	483.93	J/molxK	801.67	Joback Method
dvisc	0.0027888	Paxs	362.16	Joback Method
dvisc	0.0015433	Paxs	403.60	Joback Method
dvisc	0.0009535	Paxs	445.04	Joback Method
dvisc	0.0006395	Paxs	486.48	Joback Method
dvisc	0.0004567	Paxs	527.92	Joback Method
dvisc	0.0003425	Paxs	569.36	Joback Method
dvisc	0.0002671	Paxs	610.80	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	493.20	K	10.00	NIST Webbook

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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=C111193&Units=SI

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
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
vc:	Critical Volume

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