Tetrasulfide, dimethyl

Other names:	Dimethyl tetrasulphide
	Dimethyl tetrasulfide
	1,4-Dimethyltetrasulfide
Inchi:	InChI=1S/C2H6S4/c1-3-5-6-4-2/h1-2H3
InchiKey:	NPNIZCVKXVRCHF-UHFFFAOYSA-N
Formula:	C2H6S4
SMILES:	CSSSSC
Mol. weight [g/mol]:	158.33
CAS:	5756-24-1

Physical Properties

Property code	Value	Unit	Source
gf	98.44	kJ/mol	Joback Method
hf	82.87	kJ/mol	Joback Method
hfus	17.46	kJ/mol	Joback Method
hvap	47.31	kJ/mol	Joback Method
log10ws	-3.17		Crippen Method
logp	2.924		Crippen Method
mcvol	104.440	ml/mol	McGowan Method
pc	5552.58	kPa	Joback Method
rinpol	1234.00		NIST Webbook
rinpol	1247.00		NIST Webbook
rinpol	1240.00		NIST Webbook
rinpol	1240.00		NIST Webbook
rinpol	1200.00		NIST Webbook
rinpol	1252.00		NIST Webbook
rinpol	1223.00		NIST Webbook
rinpol	1220.00		NIST Webbook
rinpol	1204.00		NIST Webbook
rinpol	1241.00		NIST Webbook
rinpol	1250.00		NIST Webbook
rinpol	1251.00		NIST Webbook
rinpol	1260.00		NIST Webbook
rinpol	1235.00		NIST Webbook
rinpol	1203.00		NIST Webbook
rinpol	1188.00		NIST Webbook
rinpol	1186.00		NIST Webbook

rinpol	1186.00	NIST Webbook
rinpol	1192.00	NIST Webbook
rinpol	1194.00	NIST Webbook
rinpol	1215.00	NIST Webbook
rinpol	1234.00	NIST Webbook
rinpol	1233.00	NIST Webbook
rinpol	1251.00	NIST Webbook
rinpol	1209.00	NIST Webbook
rinpol	1236.00	NIST Webbook
rinpol	1252.00	NIST Webbook
rinpol	1192.00	NIST Webbook
rinpol	1202.00	NIST Webbook
rinpol	1215.00	NIST Webbook
rinpol	1206.00	NIST Webbook
rinpol	1181.00	NIST Webbook
rinpol	1190.00	NIST Webbook
rinpol	1168.00	NIST Webbook
rinpol	1190.00	NIST Webbook
rinpol	1235.00	NIST Webbook
rinpol	1241.00	NIST Webbook
rinpol	1224.00	NIST Webbook
rinpol	1187.00	NIST Webbook
rinpol	1210.00	NIST Webbook
rinpol	1260.00	NIST Webbook
rinpol	1207.00	NIST Webbook
rinpol	1212.00	NIST Webbook
rinpol	1205.00	NIST Webbook
rinpol	1232.00	NIST Webbook
rinpol	1206.00	NIST Webbook
rinpol	1202.00	NIST Webbook
rinpol	1188.00	NIST Webbook
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rinpol	1188.00	NIST Webbook
rinpol	1203.00	NIST Webbook
rinpol	1173.00	NIST Webbook
rinpol	1192.00	NIST Webbook
rinpol	1237.00	NIST Webbook
rinpol	1234.00	NIST Webbook
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rinpol	1234.00		NIST Webbook
rinpol	1240.00		NIST Webbook
rinpol	1220.00		NIST Webbook
rinpol	1218.00		NIST Webbook
rinpol	1186.00		NIST Webbook
rinpol	1200.00		NIST Webbook
ripol	1750.00		NIST Webbook
ripol	1735.00		NIST Webbook
ripol	1721.00		NIST Webbook
ripol	1763.00		NIST Webbook
ripol	1750.00		NIST Webbook
ripol	1742.00		NIST Webbook
ripol	1735.00		NIST Webbook
ripol	1750.00		NIST Webbook
tb	520.28	K	Joback Method
tc	798.71	K	Joback Method
tf	249.90	K	Joback Method
vc	0.363	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	175.39	J/mol×K	520.28	Joback Method
cpg	183.14	J/mol×K	566.68	Joback Method
cpg	190.51	J/mol×K	613.09	Joback Method
cpg	197.42	J/mol×K	659.49	Joback Method
cpg	203.83	J/mol×K	705.90	Joback Method
cpg	209.67	J/mol×K	752.30	Joback Method
cpg	214.89	J/mol×K	798.71	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C5756241&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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

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
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
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume