«alpha»,«beta»-Dimethylstyrene

Other names:	Benzene, (1-methyl-1-propenyl)-
	(1-methylpropenyl)benzene
Inchi:	InChI=1S/C10H12/c1-3-9(2)10-7-5-4-6-8-10/h3-8H,1-2H3
InchiKey:	UGUYQBMBIJFNRM-UHFFFAOYSA-N
Formula:	C10H12
SMILES:	CC=C(C)c1ccccc1
Mol. weight [g/mol]:	132.20
CAS:	2082-61-3

Physical Properties

Property code	Value	Unit	Source
gf	217.40	kJ/mol	Joback Method
hf	94.23	kJ/mol	Joback Method
hfus	14.59	kJ/mol	Joback Method
hvap	40.17	kJ/mol	Joback Method
log10ws	-3.13		Crippen Method
logp	3.110		Crippen Method
mcvol	123.700	ml/mol	McGowan Method
pc	3121.00	kPa	Joback Method
rinpol	1090.70		NIST Webbook
rinpol	1090.70		NIST Webbook
rinpol	1090.70		NIST Webbook
tb	461.65 ± 6.00	K	NIST Webbook
tb	463.15 ± 5.00	K	NIST Webbook
tb	465.15 ± 5.00	K	NIST Webbook
tb	463.00 ± 5.00	K	NIST Webbook
tb	461.15 ± 6.00	K	NIST Webbook
tb	457.15 ± 5.00	K	NIST Webbook
tc	678.24	K	Joback Method
tf	209.84	K	Joback Method
vc	0.469	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	240.06	J/mol×K	458.92	Joback Method
cpg	255.09	J/mol×K	495.47	Joback Method
cpg	269.14	J/mol×K	532.03	Joback Method
cpg	282.26	J/mol×K	568.58	Joback Method
cpg	294.51	J/mol×K	605.14	Joback Method
cpg	305.95	J/mol×K	641.69	Joback Method
cpg	316.62	J/mol×K	678.24	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C2082613&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

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
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume

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