

# Benzenesulfonyl fluoride

<b>Other names:</b>	Phenylsulfonyl fluoride Benzenesulphonyl fluoride
<b>Inchi:</b>	InChI=1S/C6H5FO2S/c7-10(8,9)6-4-2-1-3-5-6/h1-5H
<b>InchiKey:</b>	IDIPWEYIBKUDNY-UHFFFAOYSA-N
<b>Formula:</b>	C6H5FO2S
<b>SMILES:</b>	O=S(=O)(F)c1ccccc1
<b>Mol. weight [g/mol]:</b>	160.17
<b>CAS:</b>	368-43-4

## Physical Properties

Property code	Value	Unit	Source
gf	-551.30	kJ/mol	Joback Method
hf	-580.10	kJ/mol	Joback Method
hfus	19.80	kJ/mol	Joback Method
hvap	49.04	kJ/mol	Joback Method
log10ws	-1.59		Crippen Method
logp	1.345		Crippen Method
mcvol	101.500	ml/mol	McGowan Method
pc	5462.66	kPa	Joback Method
tb	476.50 ± 0.50	K	NIST Webbook
tb	480.00	K	NIST Webbook
tc	607.36	K	Joback Method
tf	222.95	K	Joback Method
vc	0.407	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	178.61	J/molxK	410.41	Joback Method
cpg	188.87	J/molxK	443.23	Joback Method
cpg	198.60	J/molxK	476.06	Joback Method
cpg	207.81	J/molxK	508.88	Joback Method
cpg	216.49	J/molxK	541.71	Joback Method
cpg	224.66	J/molxK	574.53	Joback Method

## Sources

<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>
<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C368434&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C368434&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>
<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>

## Legend

<b>cpg:</b>	Ideal gas heat capacity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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