

Sulfur chloride

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|-----------------------------|-----------------------------|
| Inchi: | InChI=1S/CIS2/c1-3-2 |
| InchiKey: | ASGYIKBYZKQKJC-UHFFFAOYSA-N |
| Formula: | CIS2 |
| SMILES: | [S]SCI |
| Mol. weight [g/mol]: | 99.58 |
| CAS: | 39594-91-7 |

Physical Properties

| Property code | Value | Unit | Source |
|---------------|---------|----------------------|----------------|
| gf | 55.81 | kJ/mol | Joback Method |
| hf | 80.48 | kJ/mol | Joback Method |
| hfus | 9.89 | kJ/mol | Joback Method |
| hvap | 33.47 | kJ/mol | Joback Method |
| log10ws | -2.17 | | Crippen Method |
| logp | 1.986 | | Crippen Method |
| mvol | 53.650 | ml/mol | McGowan Method |
| pc | 7218.50 | kPa | Joback Method |
| tb | 373.69 | K | Joback Method |
| tc | 606.72 | K | Joback Method |
| tf | 204.85 | K | Joback Method |
| vc | 0.183 | m ³ /kmol | Joback Method |

Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---------------|-------|---------|-----------------|---------------|
| cpg | 58.28 | J/mol×K | 373.69 | Joback Method |
| cpg | 59.41 | J/mol×K | 412.53 | Joback Method |
| cpg | 60.35 | J/mol×K | 451.37 | Joback Method |
| cpg | 61.14 | J/mol×K | 490.20 | Joback Method |
| cpg | 61.77 | J/mol×K | 529.04 | Joback Method |
| cpg | 62.28 | J/mol×K | 567.88 | Joback Method |
| cpg | 62.68 | J/mol×K | 606.72 | Joback Method |

Sources

| | |
|------------------------|---|
| NIST Webbook: | http://webbook.nist.gov/cgi/cbook.cgi?ID=C39594917&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 |
| mccvol: | McGowan's characteristic volume |
| pc: | Critical Pressure |
| tb: | Normal Boiling Point Temperature |
| tc: | Critical Temperature |
| tf: | Normal melting (fusion) point |
| vc: | Critical Volume |

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