

Glutaric acid, 2,4,6-trichlorophenyl 2-chloro-5-methylphenyl ester

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|-----------------------------|--|
| Inchi: | InChI=1S/C18H14Cl4O4/c1-10-5-6-12(20)15(7-10)25-16(23)3-2-4-17(24)26-18-13(21)8- |
| InchiKey: | FRBRISIKAGWYQE-UHFFFAOYSA-N |
| Formula: | C18H14Cl4O4 |
| SMILES: | <chem>Cc1ccc(Cl)c(OC(=O)CCCC(=O)Oc2c(Cl)cc(Cl)cc2Cl)c1</chem> |
| Mol. weight [g/mol]: | 436.11 |

Physical Properties

| Property code | Value | Unit | Source |
|---------------|---------|---------|----------------|
| gf | -238.21 | kJ/mol | Joback Method |
| hf | -551.70 | kJ/mol | Joback Method |
| hfus | 50.88 | kJ/mol | Joback Method |
| hvap | 99.38 | kJ/mol | Joback Method |
| log10ws | -7.38 | | Crippen Method |
| logp | 6.290 | | Crippen Method |
| mcvol | 280.800 | ml/mol | McGowan Method |
| pc | 1714.61 | kPa | Joback Method |
| rinpol | 3057.00 | | NIST Webbook |
| rinpol | 3057.00 | | NIST Webbook |
| tb | 991.80 | K | Joback Method |
| tc | 1235.66 | K | Joback Method |
| tf | 672.06 | K | Joback Method |
| vc | 1.071 | m3/kmol | Joback Method |

Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---------------|-----------|---------|-----------------|---------------|
| cpg | 742.11 | J/molxK | 991.80 | Joback Method |
| cpg | 769.63 | J/molxK | 1195.02 | Joback Method |
| cpg | 766.63 | J/molxK | 1154.38 | Joback Method |
| cpg | 762.39 | J/molxK | 1113.73 | Joback Method |
| cpg | 756.90 | J/molxK | 1073.09 | Joback Method |
| cpg | 750.14 | J/molxK | 1032.44 | Joback Method |
| cpg | 771.42 | J/molxK | 1235.66 | Joback Method |
| dvisc | 0.0000441 | Paxs | 991.80 | Joback Method |

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|-------|-----------|------|--------|---------------|
| dvisc | 0.0000531 | Paxs | 938.51 | Joback Method |
| dvisc | 0.0000653 | Paxs | 885.22 | Joback Method |
| dvisc | 0.0000825 | Paxs | 831.93 | Joback Method |
| dvisc | 0.0001077 | Paxs | 778.64 | Joback Method |
| dvisc | 0.0001462 | Paxs | 725.35 | Joback Method |
| dvisc | 0.0002083 | Paxs | 672.06 | Joback Method |

Sources

| | |
|------------------------|---|
| 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=U393431&Units=SI |
| Crippen Method: | http://pubs.acs.org/doi/abs/10.1021/ci990307l |

Legend

| | |
|----------------------------|---|
| cp_g: | 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: | Log ₁₀ of Water solubility in mol/l |
| logp: | Octanol/Water partition coefficient |
| m_{cvol}: | 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 |

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<https://www.chemeo.com/cid/119-983-9/Glutaric-acid-2-4-6-trichlorophenyl-2-chloro-5-methylphenyl-ester.pdf>

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