

# Glutaric acid, 2,2-dichloroethyl 2,2,3,4,4,4-hexafluorobutyl ester

|                             |                                                                                  |
|-----------------------------|----------------------------------------------------------------------------------|
| <b>Inchi:</b>               | InChI=1S/C11H12Cl2F6O4/c12-6(13)4-22-7(20)2-1-3-8(21)23-5-10(15,16)9(14)11(17,18 |
| <b>InchiKey:</b>            | CWFRGEDIFVXCLX-UHFFFAOYSA-N                                                      |
| <b>Formula:</b>             | C11H12Cl2F6O4                                                                    |
| <b>SMILES:</b>              | O=C(CCCC(=O)OCC(F)(F)C(F)C(F)(F)F)OCC(Cl)Cl                                      |
| <b>Mol. weight [g/mol]:</b> | 393.11                                                                           |

## Physical Properties

| Property code | Value    | Unit    | Source         |
|---------------|----------|---------|----------------|
| gf            | -1618.02 | kJ/mol  | Joback Method  |
| hf            | -1996.17 | kJ/mol  | Joback Method  |
| hfus          | 34.82    | kJ/mol  | Joback Method  |
| hvap          | 58.89    | kJ/mol  | Joback Method  |
| log10ws       | -4.01    |         | Crippen Method |
| logp          | 3.583    |         | Crippen Method |
| mvol          | 215.830  | ml/mol  | McGowan Method |
| pc            | 1636.45  | kPa     | Joback Method  |
| tb            | 666.80   | K       | Joback Method  |
| tc            | 837.80   | K       | Joback Method  |
| tf            | 396.27   | K       | Joback Method  |
| vc            | 0.872    | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 575.87 | J/molxK | 666.80          | Joback Method |
| cpg           | 586.64 | J/molxK | 695.30          | Joback Method |
| cpg           | 596.74 | J/molxK | 723.80          | Joback Method |
| cpg           | 606.18 | J/molxK | 752.30          | Joback Method |
| cpg           | 615.01 | J/molxK | 780.80          | Joback Method |
| cpg           | 623.24 | J/molxK | 809.30          | Joback Method |
| cpg           | 630.89 | J/molxK | 837.80          | Joback Method |

# Sources

|                        |                                                                                                                                           |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| <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=U393686&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U393686&amp;Units=SI</a> |
| <b>Crippen Method:</b> | <a href="http://pubs.acs.org/doi/abs/10.1021/ci990307I">http://pubs.acs.org/doi/abs/10.1021/ci990307I</a>                                 |
| <b>Crippen Method:</b> | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>                         |
| <b>Joback Method:</b>  | <a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</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>h vap:</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>m cvol:</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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