

# Sebacic acid, 2,5-difluorobenzyl nonyl ester

|                             |  |
|-----------------------------|--|
| <b>Inchi:</b>               | InChI=1S/C26H40F2O4/c1-2-3-4-5-8-11-14-19-31-25(29)15-12-9-6-7-10-13-16-26(30)32 |
| <b>InchiKey:</b>            | OTQYJVULCAAGRC-UHFFFAOYSA-N  |
| <b>Formula:</b>             | C26H40F2O4   |
| <b>SMILES:</b>              | CCCCCCCCCOC(=O)CCCCCCCCC(=O)OCc1cc(F)ccc1F                                       |
| <b>Mol. weight [g/mol]:</b> | 454.59   |

## Physical Properties

| Property code | Value    | Unit                 | Source         |
|---------------|----------|----------------------|----------------|
| gf            | -596.27  | kJ/mol               | Joback Method  |
| hf            | -1248.20 | kJ/mol               | Joback Method  |
| hfus          | 68.09    | kJ/mol               | Joback Method  |
| hvap          | 93.75    | kJ/mol               | Joback Method  |
| log10ws       | -8.69    |                      | Crippen Method |
| logp          | 7.423    |                      | Crippen Method |
| mvol          | 371.860  | ml/mol               | McGowan Method |
| pc            | 859.48   | kPa                  | Joback Method  |
| rinpol        | 3023.00  |                      | NIST Webbook   |
| rinpol        | 3023.00  |                      | NIST Webbook   |
| tb            | 982.04   | K                    | Joback Method  |
| tc            | 1206.32  | K                    | Joback Method  |
| tf            | 579.74   | K                    | Joback Method  |
| vc            | 1.468    | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value   | Unit    | Temperature [K] | Source        |
|---------------|---------|---------|-----------------|---------------|
| cpg           | 1256.69 | J/mol×K | 982.04          | Joback Method |
| cpg           | 1274.12 | J/mol×K | 1019.42         | Joback Method |
| cpg           | 1289.93 | J/mol×K | 1056.80         | Joback Method |
| cpg           | 1304.17 | J/mol×K | 1094.18         | Joback Method |
| cpg           | 1316.89 | J/mol×K | 1131.56         | Joback Method |
| cpg           | 1328.14 | J/mol×K | 1168.94         | Joback Method |
| cpg           | 1337.96 | J/mol×K | 1206.32         | Joback Method |

# Sources

|                        |   |
|------------------------|---|
| <b>NIST Webbook:</b>   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U380767&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U380767&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>                         |
| <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>                     |

# 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>hvp:</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>rinp:</b>    | Non-polar retention indices                     |
| <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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