

# 4-(Trifluoromethyl)benzoic acid, oct-3-en-2-yl ester

|                      |  |
|----------------------|--|
| Inchi:               | InChI=1S/C16H19F3O2/c1-3-4-5-6-7-12(2)21-15(20)13-8-10-14(11-9-13)16(17,18)19/h6 |
| InchiKey:            | LAJBFUMGBXUHPT-VOTSOKGWSA-N  |
| Formula:             | C16H19F3O2   |
| SMILES:              | CCCCC=CC(C)OC(=O)c1ccc(C(F)(F)F)cc1  |
| Mol. weight [g/mol]: | 300.32   |

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | -551.11 | kJ/mol  | Joback Method  |
| hf            | -878.45 | kJ/mol  | Joback Method  |
| hfus          | 32.14   | kJ/mol  | Joback Method  |
| hvap          | 59.13   | kJ/mol  | Joback Method  |
| log10ws       | -5.71   |         | Crippen Method |
| logp          | 4.997   |         | Crippen Method |
| mcvol         | 220.990 | ml/mol  | McGowan Method |
| pc            | 1668.70 | kPa     | Joback Method  |
| rinpol        | 1621.00 |         | NIST Webbook   |
| tb            | 671.73  | K       | Joback Method  |
| tc            | 864.38  | K       | Joback Method  |
| tf            | 365.29  | K       | Joback Method  |
| vc            | 0.865   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 604.56 | J/molxK | 671.73          | Joback Method |
| cpg           | 619.90 | J/molxK | 703.84          | Joback Method |
| cpg           | 634.30 | J/molxK | 735.95          | Joback Method |
| cpg           | 647.81 | J/molxK | 768.05          | Joback Method |
| cpg           | 660.47 | J/molxK | 800.16          | Joback Method |
| cpg           | 672.33 | J/molxK | 832.27          | Joback Method |
| cpg           | 683.46 | J/molxK | 864.38          | Joback Method |

# Sources

|                        |   |
|------------------------|---|
| <b>NIST Webbook:</b>   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U299442&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U299442&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>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>rinpola:</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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