

# Adipic acid, cis-hex-3-enyl isobutyl ester

**Inchi:** InChI=1S/C16H28O4/c1-4-5-6-9-12-19-15(17)10-7-8-11-16(18)20-13-14(2)3/h5-6,14H,4,  
**InchiKey:** IGRRHMWKAQAQFY-WAYWQWQTSA-N  
**Formula:** C16H28O4  
**SMILES:** CCC=CCCOC(=O)CCCCC(=O)OCC(C)C  
**Mol. weight [g/mol]:** 284.39

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | -306.22 | kJ/mol  | Joback Method  |
| hf            | -751.23 | kJ/mol  | Joback Method  |
| hfus          | 39.45   | kJ/mol  | Joback Method  |
| hvap          | 69.09   | kJ/mol  | Joback Method  |
| log10ws       | -3.86   |         | Crippen Method |
| logp          | 3.645   |         | Crippen Method |
| mcvol         | 246.880 | ml/mol  | McGowan Method |
| pc            | 1477.02 | kPa     | Joback Method  |
| rinpol        | 1909.00 |         | NIST Webbook   |
| tb            | 721.78  | K       | Joback Method  |
| tc            | 904.51  | K       | Joback Method  |
| tf            | 394.32  | K       | Joback Method  |
| vc            | 0.954   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 710.90    | J/mol×K | 721.78          | Joback Method |
| cpg           | 727.17    | J/mol×K | 752.23          | Joback Method |
| cpg           | 742.59    | J/mol×K | 782.69          | Joback Method |
| cpg           | 757.19    | J/mol×K | 813.14          | Joback Method |
| cpg           | 770.99    | J/mol×K | 843.60          | Joback Method |
| cpg           | 783.99    | J/mol×K | 874.05          | Joback Method |
| cpg           | 796.23    | J/mol×K | 904.51          | Joback Method |
| dvisc         | 0.0014186 | Pa×s    | 394.32          | Joback Method |
| dvisc         | 0.0006427 | Pa×s    | 448.90          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0003457 | Pa×s | 503.47 | Joback Method |
| dvisc | 0.0002100 | Pa×s | 558.05 | Joback Method |
| dvisc | 0.0001394 | Pa×s | 612.63 | Joback Method |
| dvisc | 0.0000989 | Pa×s | 667.20 | Joback Method |
| dvisc | 0.0000739 | Pa×s | 721.78 | 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=U353971&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U353971&amp;Units=SI</a> |
| <b>Crippen Method:</b> | <a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</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>dvisc:</b>   | Dynamic viscosity                               |
| <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>rinpol:</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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