

Diglycolic acid, 2-acetylphenyl butyl ester

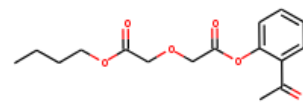
InChI: InChI=1S/C16H20O6/c1-3-4-9-21-15(18)10-20-11-16(19)22-14-8-6-5-7-13(14)12(2)17/h5-8H,3-4,9-11H2,1-2H3

InChI Key: CTNVLYZEVOPPNW-UHFFFAOYSA-N

Formula: C16H20O6

SMILES: CCCOC(=O)COCC(=O)Oc1ccccc1C(C)=O

Molecular Weight: 308.33



Physical Properties

| Property | Value | Unit | Source |
|---------------------------------|---------|------------------------|----------------|
| $\Delta_f G^\circ$ | -515.14 | kJ/mol | Joback Method |
| $\Delta_f H^\circ_{\text{gas}}$ | -882.91 | kJ/mol | Joback Method |
| $\Delta_{\text{fus}} H^\circ$ | 39.21 | kJ/mol | Joback Method |
| $\Delta_{\text{vap}} H^\circ$ | 81.62 | kJ/mol | Joback Method |
| $\log P_{\text{oct/wat}}$ | 2.15 | | Crippen Method |
| P_c | 1890.36 | kPa | Joback Method |
| T_{boil} | 826.01 | K | Joback Method |
| T_c | 1034.00 | K | Joback Method |
| T_{fus} | 525.50 | K | Joback Method |
| V_c | 0.90 | m ³ /kg-mol | Joback Method |

Temperature Dependent Properties

| Property | Value | Unit | Temperature (K) | Source |
|--------------------|--------|---------|-----------------|---------------|
| $C_{p,\text{gas}}$ | 691.41 | J/mol×K | 826.01 | Joback Method |
| η | 0.00 | Paxs | 826.01 | Joback Method |

Sources

Joback Method: https://en.wikipedia.org/wiki/Joback_method

NIST Webbook: [http://webbook.nist.gov/cgi/inchi/InChI=1S/C16H20O6/c1-3-4-9-21-15\(18\)10-20-11-16\(19\)22-14-8-6-5-7-13\(14\)12\(2\)17/h5-8H,3-4,9-11H2,1-2H3](http://webbook.nist.gov/cgi/inchi/InChI=1S/C16H20O6/c1-3-4-9-21-15(18)10-20-11-16(19)22-14-8-6-5-7-13(14)12(2)17/h5-8H,3-4,9-11H2,1-2H3)

Crippen Method: <http://pubs.acs.org/doi/abs/10.1021/ci9903071>

Legend

$C_{p, gas}$: Ideal gas heat capacity (J/molxK).

η : Dynamic viscosity (Pa \times s).

$\Delta_f G^\circ$: Standard Gibbs free energy of formation (kJ/mol).

$\Delta_f H^\circ_{gas}$: Enthalpy of formation at standard conditions (kJ/mol).

$\Delta_{fus} H^\circ$: Enthalpy of fusion at standard conditions (kJ/mol).

$\Delta_{vap} H^\circ$: Enthalpy of vaporization at standard conditions (kJ/mol).

$logP_{oct/wat}$: Octanol/Water partition coefficient .

P_c : Critical Pressure (kPa).

T_{boil} : Normal Boiling Point Temperature (K).

T_c : Critical Temperature (K).

T_{fus} : Normal melting (fusion) point (K).

V_c : Critical Volume (m³/kg-mol).

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