

3-Bromobenzoic acid, 2-chlorophenyl ester

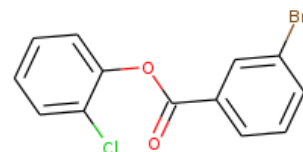
InChI: InChI=1S/C13H8BrClO2/c14-10-5-3-4-9(8-10)13(16)17-12-7-2-1-6-11(12)15/h1-8H

InChI Key: GLMMOSUCBIPMQS-UHFFFAOYSA-N

Formula: C13H8BrClO2

SMILES: O=C(Oc1cccc1Cl)c1cccc(Br)c1

Molecular Weight: 311.56



Physical Properties

| Property | Value | Unit | Source |
|---------------------------------|---------|------------------------|----------------|
| $\Delta_f G^\circ$ | 32.61 | kJ/mol | Joback Method |
| $\Delta_f H^\circ_{\text{gas}}$ | -95.74 | kJ/mol | Joback Method |
| $\Delta_{\text{fus}} H^\circ$ | 29.00 | kJ/mol | Joback Method |
| $\Delta_{\text{vap}} H^\circ$ | 70.38 | kJ/mol | Joback Method |
| $\log P_{\text{oct/wat}}$ | 4.322 | | Crippen Method |
| P_c | 3243.03 | kPa | Joback Method |
| T_{boil} | 740.04 | K | Joback Method |
| T_c | 1003.05 | K | Joback Method |
| T_{fus} | 476.03 | K | Joback Method |
| V_c | 0.682 | m ³ /kg-mol | Joback Method |

Temperature Dependent Properties

| Property | Value | Unit | Temperature (K) | Source |
|--------------------|-----------|---------|-----------------|---------------|
| $C_{p,\text{gas}}$ | 419.51 | J/mol×K | 740.04 | Joback Method |
| η | 0.0001388 | Paxs | 740.04 | Joback Method |

Sources

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

NIST Webbook: [http://webbook.nist.gov/cgi/inchi/InChI=1S/C13H8BrClO2/c14-10-5-3-4-9\(8-10\)13\(16\)17-12-7-2-1-6-11\(12\)15/h1-8H](http://webbook.nist.gov/cgi/inchi/InChI=1S/C13H8BrClO2/c14-10-5-3-4-9(8-10)13(16)17-12-7-2-1-6-11(12)15/h1-8H)

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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