HO[CH2CH2O]5H

Other names: 2-[2-[2-[2-(2-Hydroxyethoxy)ethoxy]ethoxy]ethoxy]ethanol; 3,6,9,12-Tetraoxatetradecane-1,14-diol; HO[CH2CH2O]5H; Pentaglycol.

InChI: InChI=1S/C10H22O6/c11-1-3-13-5-7-15-9-10-16-8-6-14-4-2-12/h11-12H,1-10H2

InChI Key: JLFNLZLINWHATN-UHFFFAOYSA-N

Formula: C10H22O6

SMILES: OCCOCCOCCOCCOCCO

Molecular Weight: 238.28

CAS: 4792-15-8

Physical Properties

Property	Value	Unit	Source
$\Delta_f G°$	-660.32	kJ/mol	Joback Method
$\Delta_f H°_{gas}$	-1083.07	kJ/mol	Joback Method
$\Delta_{fus} H°$	34.58	kJ/mol	Joback Method
$\Delta_{vap} H°$	80.85	kJ/mol	Joback Method
$logP_{oct/wat}$	-0.96		Crippen Method
P_c	2351.92	kPa	Joback Method
T_{boil}	702.24	K	Joback Method
T_c	751.00 ± 20.00	K	NIST Webbook
T_{fus}	264.45 ± 0.70	K	NIST Webbook
V_c	0.71	m^3/kg-mol	Joback Method

Temperature Dependent Properties

Property	Value	Unit	Temperature (K)	Source
$C_{p,gas}$	547.05	J/mol×K	702.24	Joback Method
$C_{p,liquid}$	515.50	J/mol×K	298.0	NIST Webbook
η	0.00	Pa×s	702.24	Joback Method

Sources

Joback Method: https://en.wikipedia.org/wiki/Joback_method
NIST Webbook: http://webbook.nist.gov/cgi/inchi/InChI=1S/C10H22O6/c11-1-3-13-5-7-15-9-10-16-8-6-14-4-2-12/h11-12H,1-10H2
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

$\mathbf{C_{p,gas}}$: Ideal gas heat capacity (J/mol×K).
$\mathbf{C_{p,liquid}}$: Liquid phase heat capacity (J/mol×K).
η: Dynamic viscosity (Pa×s).
$\Delta_f\mathbf{G°}$: Standard Gibbs free energy of formation (kJ/mol).
$\Delta_f\mathbf{H°_{gas}}$: Enthalpy of formation at standard conditions (kJ/mol).
$\Delta_{fus}\mathbf{H°}$: Enthalpy of fusion at standard conditions (kJ/mol).
$\Delta_{vap}\mathbf{H°}$: Enthalpy of vaporization at standard conditions (kJ/mol).
$\boldsymbol{log}\mathbf{P_{oct/wat}}$: Octanol/Water partition coefficient .
$\mathbf{P_c}$: Critical Pressure (kPa).
$\mathbf{T_{boil}}$: Normal Boiling Point Temperature (K).
$\mathbf{T_c}$: Critical Temperature (K).
$\mathbf{T_{fus}}$: Normal melting (fusion) point (K).
$\mathbf{V_c}$: Critical Volume (m^3/kg-mol).