3-Hexen-1-ol, formate, (Z)-

Other names: (3Z)-3-Hexenyl formate

(Z)-3-Hexenyl format (Z)-3-Hexenyl formate (Z)-Hex-3-enyl formate cis-3-Hexen-1-ol formate cis-3-Hexenyl formate

cis-«beta»-Hexenyl formate cis-«beta»-Hexenyl formate

«beta», «gamma»-Hexenyl methanoate

«beta»,«gamma»-Hexenyl methanoate

InChl=1S/C7H12O2/c1-2-3-4-5-6-9-7-8/h3-4,7H,2,5-6H2,1H3/b4-3-

InchiKey: XJHQVZQZUGLZLS-ARJAWSKDSA-N

Formula: C7H12O2

SMILES: CCC=CCCOC=O

Mol. weight [g/mol]: 128.17 **CAS:** 33467-73-1

Physical Properties

Property code	Value	Unit	Source
gf	-116.24	kJ/mol	Joback Method
hf	-288.39	kJ/mol	Joback Method
hfus	17.57	kJ/mol	Joback Method
hvap	40.26	kJ/mol	Joback Method
log10ws	-1.47		Crippen Method
logp	1.516		Crippen Method
mcvol	112.630	ml/mol	McGowan Method
рс	3152.62	kPa	Joback Method
rinpol	903.00		NIST Webbook
rinpol	912.00		NIST Webbook
rinpol	902.00		NIST Webbook
rinpol	904.00		NIST Webbook
rinpol	904.00		NIST Webbook
rinpol	902.40		NIST Webbook
rinpol	920.00		NIST Webbook
rinpol	912.00		NIST Webbook
rinpol	903.00		NIST Webbook
rinpol	920.00		NIST Webbook

ripol	1252.00		NIST Webbook
ripol	1260.00		NIST Webbook
ripol	1252.00		NIST Webbook
ripol	1258.00		NIST Webbook
ripol	1254.00		NIST Webbook
ripol	1261.00		NIST Webbook
tb	434.80	K	Joback Method
tc	614.89	K	Joback Method
tf	227.80	K	Joback Method
VC	0.443	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	224.30	J/mol×K	434.80	Joback Method
cpg	234.73	J/mol×K	464.82	Joback Method
cpg	244.75	J/mol×K	494.83	Joback Method
cpg	254.34	J/mol×K	524.85	Joback Method
cpg	263.54	J/mol×K	554.86	Joback Method
cpg	272.34	J/mol×K	584.88	Joback Method
cpg	280.76	J/mol×K	614.89	Joback Method
dvisc	0.0004960	Paxs	308.15	Density and Viscosity Correlation for Several Common Fragrance and Flavor Esters
dvisc	0.0005610	Paxs	298.15	Density and Viscosity Correlation for Several Common Fragrance and Flavor Esters
dvisc	0.0005270	Paxs	303.15	Density and Viscosity Correlation for Several Common Fragrance and Flavor Esters
dvisc	0.0005990	Paxs	293.15	Density and Viscosity Correlation for Several Common Fragrance and Flavor Esters

dvisc	0.0004690	Paxs	313.15	Density and Viscosity Correlation for Several Common Fragrance and Flavor Esters	
dvisc	0.0004430	Paxs	318.15	Density and Viscosity Correlation for Several Common Fragrance and Flavor Esters	
dvisc	0.0004210	Paxs	323.15	Density and Viscosity Correlation for Several Common Fragrance and Flavor Esters	
dvisc	0.0004000	Paxs	328.15	Density and Viscosity Correlation for Several Common Fragrance and Flavor Esters	
dvisc	0.0003800	Paxs	333.15	Density and Viscosity Correlation for Several Common Fragrance and Flavor Esters	
dvisc	0.0003630	Paxs	338.15	Density and Viscosity Correlation for Several Common Fragrance and Flavor Esters	
dvisc	0.0003460	Paxs	343.15	Density and Viscosity Correlation for Several Common Fragrance and Flavor Esters	
dvisc	0.0005990	Paxs	293.15	Density and Viscosity for a Binary Mixture of cis-3-Hexenyl Formate, Butyl Acetate, trans-2-Hexenyl Acetate, and cis-3-Hexenyl Acetate with Ethanol at Several Temperatures	

dvisc	0.0005270	Paxs	303.15	Density and Viscosity for a Binary Mixture of cis-3-Hexenyl Formate, Butyl Acetate, trans-2-Hexenyl Acetate, and cis-3-Hexenyl Acetate with Ethanol at Several Temperatures	
dvisc	0.0004690	Paxs	313.15	Density and Viscosity for a Binary Mixture of cis-3-Hexenyl Formate, Butyl Acetate, trans-2-Hexenyl Acetate, and cis-3-Hexenyl Acetate with Ethanol at Several Temperatures	

Correlations

Information Value

Property code	pvap		
Equation	In(Pvp) = A + B/(T + C)		
Coeff. A	1.89075e+01		
Coeff. B	-5.07474e+03		
Coeff. C	-6.56080e+01		
Temperature range (K), min.	338.15		
Temperature range (K), max.	438.86		

Sources

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

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C33467731&Units=SI

The Yaws Handbook of Vapor

https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

Pressure: Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws **Density and Viscosity Correlation for** Several Common Fragrance and Flavor Penergy and Viscosity for a Binary Mixture of cis-3-Hexenyl Formate, Butyl Acetate, trans-2-Hexenyl Acetate, and cis-3-Hexenyl Acetate with Ethanol at **Several Temperatures:**

https://www.doi.org/10.1021/je050001c https://www.doi.org/10.1021/je0500025

∟egend

hfus:

Ideal gas heat capacity cpg:

dvisc: Dynamic viscosity

gf: Standard Gibbs free energy of formation

hf: Enthalpy of formation at standard conditions

hvap: Enthalpy of vaporization at standard conditions

Enthalpy of fusion at standard conditions

log10ws: Log10 of Water solubility in mol/l Octanol/Water partition coefficient logp: McGowan's characteristic volume mcvol:

Critical Pressure pc: Vapor pressure pvap:

rinpol: Non-polar retention indices

Polar retention indices ripol:

tb: Normal Boiling Point Temperature

tc: Critical Temperature

tf: Normal melting (fusion) point

Critical Volume vc:

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