

# 2-Ethylhexyl stearate

<b>Inchi:</b>	InChI=1S/C26H52O2/c1-4-7-9-10-11-12-13-14-15-16-17-18-19-20-21-23-26(27)28-24-25
<b>InchiKey:</b>	OPJWPPVYCOPTDCM-UHFFFAOYSA-N
<b>Formula:</b>	C26H52O2
<b>SMILES:</b>	CCCCCCCCCCCCCCCCCCCC(=O)OCC(CC)CCCC
<b>Mol. weight [g/mol]:</b>	396.69
<b>CAS:</b>	22047-49-0

## Physical Properties

Property code	Value	Unit	Source
gf	-68.32	kJ/mol	Joback Method
hf	-830.05	kJ/mol	Joback Method
hfus	62.36	kJ/mol	Joback Method
hvap	82.24	kJ/mol	Joback Method
log10ws	-9.33		Crippen Method
logp	9.008		Crippen Method
mvol	384.640	ml/mol	McGowan Method
pc	746.51	kPa	Joback Method
rinpol	2684.00		NIST Webbook
tb	870.13	K	Joback Method
tc	1066.30	K	Joback Method
tf	439.94	K	Joback Method
vc	1.510	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1403.60	J/molxK	1066.30	Joback Method
cpg	1308.62	J/molxK	902.82	Joback Method
cpg	1330.12	J/molxK	935.52	Joback Method
cpg	1350.31	J/molxK	968.21	Joback Method
cpg	1369.26	J/molxK	1000.91	Joback Method
cpg	1387.01	J/molxK	1033.60	Joback Method
cpg	1285.77	J/molxK	870.13	Joback Method
dvisc	0.0009974	Paxs	439.94	Joback Method

dvisc	0.0003640	Paxs	511.64	Joback Method
dvisc	0.0001702	Paxs	583.34	Joback Method
dvisc	0.0000940	Paxs	655.04	Joback Method
dvisc	0.0000583	Paxs	726.73	Joback Method
dvisc	0.0000395	Paxs	798.43	Joback Method
dvisc	0.0000285	Paxs	870.13	Joback Method
rhol	808.00	kg/m3	368.15	Measurement and correlation of the density, viscosity and vapor pressure of fatty acid 2-ethyhexyl esters
rhol	811.20	kg/m3	363.15	Measurement and correlation of the density, viscosity and vapor pressure of fatty acid 2-ethyhexyl esters
rhol	814.20	kg/m3	358.15	Measurement and correlation of the density, viscosity and vapor pressure of fatty acid 2-ethyhexyl esters
rhol	817.20	kg/m3	353.15	Measurement and correlation of the density, viscosity and vapor pressure of fatty acid 2-ethyhexyl esters
rhol	821.10	kg/m3	348.15	Measurement and correlation of the density, viscosity and vapor pressure of fatty acid 2-ethyhexyl esters
rhol	824.50	kg/m3	343.15	Measurement and correlation of the density, viscosity and vapor pressure of fatty acid 2-ethyhexyl esters

rho1	827.80	kg/m3	338.15	Measurement and correlation of the density, viscosity and vapor pressure of fatty acid 2-ethyhexyl esters
rho1	831.10	kg/m3	333.15	Measurement and correlation of the density, viscosity and vapor pressure of fatty acid 2-ethyhexyl esters
rho1	834.40	kg/m3	328.15	Measurement and correlation of the density, viscosity and vapor pressure of fatty acid 2-ethyhexyl esters
rho1	837.70	kg/m3	323.15	Measurement and correlation of the density, viscosity and vapor pressure of fatty acid 2-ethyhexyl esters
rho1	841.10	kg/m3	318.15	Measurement and correlation of the density, viscosity and vapor pressure of fatty acid 2-ethyhexyl esters
rho1	844.90	kg/m3	313.15	Measurement and correlation of the density, viscosity and vapor pressure of fatty acid 2-ethyhexyl esters
rho1	847.90	kg/m3	308.15	Measurement and correlation of the density, viscosity and vapor pressure of fatty acid 2-ethyhexyl esters

rho_l	851.40	kg/m <sup>3</sup>	303.15	Measurement and correlation of the density, viscosity and vapor pressure of fatty acid 2-ethyhexyl esters
rho_l	855.40	kg/m <sup>3</sup>	298.15	Measurement and correlation of the density, viscosity and vapor pressure of fatty acid 2-ethyhexyl esters

## Sources

<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>
<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=C22047490&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C22047490&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>Measurement and correlation of the density, viscosity and vapor pressure of fatty acid 2-ethyhexyl esters:</b>	<a href="https://www.doi.org/10.1016/j.jct.2018.10.012">https://www.doi.org/10.1016/j.jct.2018.10.012</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>rho_l:</b>	Liquid Density
<b>rinpola:</b>	Non-polar retention indices
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point

**vc:** Critical Volume

Latest version available from:

<https://www.chemeo.com/cid/41-657-7/2-Ethylhexyl-stearate.pdf>

Generated by Cheméo on 2024-04-28 04:25:22.440125729 +0000 UTC m=+16567571.360703044.

Cheméo (<https://www.chemeo.com>) is the biggest free database of chemical and physical data for the process industry.