# Oxirane, (chloromethyl)-

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|---|---|
| **Other names:** | Propane, 1-chloro-2,3-epoxy- |
| | «alpha»-Epichlorohydrin |
| | «gamma»-Chloropropylene oxide |
| | (Chloromethyl)ethylene oxide |
| | (Chloromethyl)oxirane |
| | Chloropropylene oxide |
| | Epichlorohydrin |
| | Glycerol epichlorohydrin |
| | Glycidyl chloride |
| | SKEkhG |
| | 1-Chloro-2,3-Epoxypropane |
| | 1,2-Epoxy-3-chloropropane |
| | 2-(Chloromethyl)oxirane |
| | 2,3-Epoxypropyl chloride |
| | 3-Chloro-1,2-epoxypropane |
| | 3-Chloro-1,2-propylene oxide |
| | 3-Chloropropene-1,2-oxide |
| | 3-Chloropropylene oxide |
| | (DL)-«alpha»-Epichlorohydrin |
| | Epichlorhydrin |
| | Epichloorhydrine |
| | Epichlorhydrine |
| | Epichlorohydryna |
| | Epicloridrina |
| | Glycerol epichlorhydrin |
| | Oxirane, 2-(chloromethyl) |
| | 1-Chloor-2,3-epoxy-propaan |
| | 1-Chlor-2,3-epoxy-propan |
| | 1-Cloro-2,3-epossipropano |
| | Epichlorophydrin |
| | Rcra waste number U041 |
| | UN 2023 |
| | NSC 6747 |
| **Inchi:** | InChI=1S/C3H5ClO/c4-1-3-2-5-3/h3H,1-2H2 |
| **InchiKey:** | BRLQWZUYTZBJKN-UHFFFAOYSA-N |
| **Formula:** | C3H5ClO |
| **SMILES:** | ClCC1CO1 |
| **Mol. weight [g/mol]:** | 92.52 |
| **CAS:** | 13403-37-7 |

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -62.92 | kJ/mol | Joback Method |
| hf | -180.19 | kJ/mol | Joback Method |
| hfus | 13.84 | kJ/mol | Joback Method |
| hvap | 31.08 | kJ/mol | Joback Method |
| log10ws | -0.33 | | Crippen Method |
| logp | 0.624 | | Crippen Method |
| mcvol | 60.380 | ml/mol | McGowan Method |
| pc | 4945.39 | kPa | Joback Method |
| tb | 389.70 | K | NIST Webbook |
| tc | 530.37 | K | Joback Method |
| tf | 198.00 | K | Joback Method |
| vc | 0.231 | m3/kmol | Joback Method |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 93.28 | J/mol×K | 339.16 | Joback Method |
| cpg | 100.62 | J/mol×K | 371.03 | Joback Method |
| cpg | 107.50 | J/mol×K | 402.90 | Joback Method |
| cpg | 113.95 | J/mol×K | 434.76 | Joback Method |
| cpg | 119.98 | J/mol×K | 466.63 | Joback Method |
| cpg | 125.61 | J/mol×K | 498.50 | Joback Method |
| cpg | 130.88 | J/mol×K | 530.37 | Joback Method |
| dvisc | 0.0011282 | Pa×s | 198.00 | Joback Method |
| dvisc | 0.0008743 | Pa×s | 221.53 | Joback Method |
| dvisc | 0.0007115 | Pa×s | 245.05 | Joback Method |
| dvisc | 0.0006004 | Pa×s | 268.58 | Joback Method |
| dvisc | 0.0005206 | Pa×s | 292.11 | Joback Method |
| dvisc | 0.0004612 | Pa×s | 315.63 | Joback Method |
| dvisc | 0.0004154 | Pa×s | 339.16 | Joback Method |

# Sources

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|---|---|
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |
| **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=C13403377&Units=SI |

# Legend

| | |
|---|---|
| **cpg:** | Ideal gas heat capacity |
| **dvisc:** | Dynamic viscosity |
| **gf:** | Standard Gibbs free energy of formation |
| **hf:** | Enthalpy of formation at standard conditions |
| **hfus:** | Enthalpy of fusion at standard conditions |
| **hvap:** | Enthalpy of vaporization at standard conditions |
| **log10ws:** | Log10 of Water solubility in mol/l |
| **logp:** | Octanol/Water partition coefficient |
| **mcvol:** | McGowan's characteristic volume |
| **pc:** | Critical Pressure |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |