# C33-25-Norhopane, 17aH, 21bH, 22R

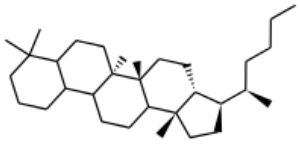
**InChI**: InChI=1S/C32H56/c1-8-9-11-22(2)23-15-19-30(5)26(23)17-21-32(7)28(30)14-13-27-24-12-10-18-29(3,4)25(24)16-20-31(27,32)6/h22-28H,8-21H2,1-7H3/t22-,23-,24?,25?,26-,27?,28?,30+,31-,32-/m0/s1

**InChI Key**: XCRHOWRYNNGKCR-XDDOIUQPSA-N

**Formula**: C32H56

**SMILES**: CCCCC(C)C1CCC2(C)C1CCC1(C)C2CCC2C3CCCC(C)(C)C3CCC21C

**Molecular Weight**: 440.79



## Physical Properties

| Property | Value | Unit | Source |
|---|---|---|---|
| $\Delta_f G°$ | 386.76 | kJ/mol | Joback Method |
| $\Delta_f H°_{gas}$ | -422.79 | kJ/mol | Joback Method |
| $\Delta_{fus} H°$ | 33.35 | kJ/mol | Joback Method |
| $\Delta_{vap} H°$ | 80.89 | kJ/mol | Joback Method |
| $log P_{oct/wat}$ | 9.91 | | Crippen Method |
| $P_c$ | 831.94 | kPa | Joback Method |
| $T_{boil}$ | 968.05 | K | Joback Method |
| $T_c$ | 1203.22 | K | Joback Method |
| $T_{fus}$ | 578.38 | K | Joback Method |
| $V_c$ | 1.55 | $m^3$/kg-mol | Joback Method |

## Temperature Dependent Properties

| Property | Value | Unit | Temperature (K) | Source |
|---|---|---|---|---|
| $C_{p,gas}$ | 1605.16 | J/mol×K | 968.05 | Joback Method |

## Sources

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

**NIST Webbook**: http://webbook.nist.gov/cgi/inchi/InChI=1S/C32H56/c1-8-9-11-22(2)23-15-19-30(5)26(23)17-21-32(7)28(30)14-13-27-24-12-10-18-29(3,4)25(24)16-20-31(27,32)6/h22-28H,8-21H2,1-7H3/t22-,23-,24?,25?,26-,27?,28?,30+,31-,32-/m0/s1

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

## Legend

**$C_{p,gas}$**: Ideal gas heat capacity (J/mol×K).
**$\Delta_f G°$**: Standard Gibbs free energy of formation (kJ/mol).
**$\Delta_f H°_{gas}$**: Enthalpy of formation at standard conditions (kJ/mol).
**$\Delta_{fus} H°$**: Enthalpy of fusion at standard conditions (kJ/mol).
**$\Delta_{vap} H°$**: Enthalpy of vaporization at standard conditions (kJ/mol).
***log*$P_{oct/wat}$**: 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 ($m^3$/kg-mol).