

# 2-OXABICYCLO[2.2.2]OCTAN-6-ONE, 1,3,3-TRIMETHYL-

Other names: 2-Oxocineole  
Inchi: InChI=1S/C10H16O2/c1-9(2)7-4-5-10(3,12-9)8(11)6-7/h7H,4-6H2,1-3H3  
InchiKey: CCBAAZXPXFYPBE-UHFFFAOYSA-N  
Formula: C10H16O2  
SMILES: CC12CCC(CC1=O)C(C)(C)O2  
Mol. weight [g/mol]: 168.24

## Physical Properties

| Property code | Value   | Unit   | Source             |
|---------------|---------|--------|--------------------|
| hf            | -386.84 | kJ/mol | Cheméo Relay (1.0) |
| hfus          | 9.69    | kJ/mol | Joback Method      |
| hvap          | 52.14   | kJ/mol | Cheméo Relay (1.0) |
| ie            | 8.76    | eV     | Cheméo Relay (1.0) |
| log10ws       | -1.26   |        | Cheméo Relay (1.0) |
| logp          | 1.923   |        | Crippen Method     |
| mcvol         | 137.480 | ml/mol | McGowan Method     |
| rinpol        | 1217.00 |        | NIST Webbook       |
| rinpol        | 1217.00 |        | NIST Webbook       |
| tb            | 478.24  | K      | Cheméo Relay (1.0) |
| tf            | 398.03  | K      | Cheméo Relay (1.0) |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 356.06 | J/mol×K | 540.80          | Joback Method |
| cpg           | 374.39 | J/mol×K | 580.67          | Joback Method |
| cpg           | 391.40 | J/mol×K | 620.54          | Joback Method |
| cpg           | 407.37 | J/mol×K | 660.41          | Joback Method |
| cpg           | 422.55 | J/mol×K | 700.27          | Joback Method |
| cpg           | 437.20 | J/mol×K | 740.14          | Joback Method |
| cpg           | 451.60 | J/mol×K | 780.01          | Joback Method |

# Sources

|                                  |                                                                                                                                                 |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Crippen Method:</b>           | <a href="http://pubs.acs.org/doi/abs/10.1021/ci990307I">http://pubs.acs.org/doi/abs/10.1021/ci990307I</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>Cheméo Relay (1.0):</b>       |                                                                                                                                                 |
| <b>Cheméo Relay (1.0, beta):</b> |                                                                                                                                                 |
| <b>NIST Webbook:</b>             | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C107598083&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C107598083&amp;Units=SI</a> |
| <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>                           |

# Legend

|                 |                                                 |
|-----------------|-------------------------------------------------|
| <b>cpg:</b>     | Ideal gas heat capacity                         |
| <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>ie:</b>      | Ionization energy                               |
| <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>rinpol:</b>  | Non-polar retention indices                     |
| <b>tb:</b>      | Normal Boiling Point Temperature                |
| <b>tf:</b>      | Normal melting (fusion) point                   |

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