# Tolnaftate

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|---|---|
| **Other names:** | Carbamothioic acid, methyl(3-methylphenyl)-, O-2-naphthalenyl ester |
| | Aftate |
| | Carbanilic acid, m,N-dimethylthio-, O-2-naphthyl ester |
| | Carbanilic acid, N,m-dimethylthio-, O-2-naphthyl ester |
| | Dermoxin |
| | Focusan |
| | Naphthiomate T |
| | O-2-Naphthyl m,N-dimethylthiocarbanilate |
| | Pitrex |
| | Sch 10144 |
| | Sporiline |
| | Tinactin |
| | Tinaderm |
| | Tinavet |
| | Tolsanil |
| | Tonoftal |
| | m,N-Dimethylthiocarbanilic acid O-2-naphthyl ester |
| | Hi-Alazin |
| | Methyl (3-methylphenyl)carbamothioic acid O-2-naphthalenyl ester |
| | 2-Naphthyl N-methyl-N-(3-tolyl)thionocarbamate |
| | Tolnaphthate |
| | Chinofungin |
| | Dr. Scholl's athlete's foot spray |
| | Dungistop |
| | Hi-Alarzin |
| | O-2-Naphthyl N,N-dimethylthiocarbanilate |
| | Timoped |
| | Tniaderm |
| | Tritin |
| | Carbamothioic acid, N-methyl-N-(3-methylphenyl)-, O-2-naphthalenyl ester |
| | NSC 233648 |
| | Phytoderm |
| **Inchi:** | InChI=1S/C19H17NOS/c1-14-6-5-9-17(12-14)20(2)19(22)21-18-11-10-15-7-3-4-8-16(15) |
| **InchiKey:** | FUSNMLFNXJSCDI-UHFFFAOYSA-N |
| **Formula:** | C19H17NOS |
| **SMILES:** | Cc1cccc(N(C)C(=S)Oc2ccc3ccccc3c2)c1 |
| **Mol. weight [g/mol]:** | 307.41 |
| **CAS:** | 2398-96-1 |

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 544.15 | kJ/mol | Joback Method |
| hf | 287.51 | kJ/mol | Joback Method |
| hfus | 38.10 | kJ/mol | Joback Method |
| hvap | 76.59 | kJ/mol | Joback Method |
| log10ws | -6.36 | | Crippen Method |
| logp | 4.948 | | Crippen Method |
| mcvol | 239.490 | ml/mol | McGowan Method |
| pc | 2284.95 | kPa | Joback Method |
| tb | 821.32 | K | Joback Method |
| tc | 1078.64 | K | Joback Method |
| tf | 384.00 ± 1.00 | K | NIST Webbook |
| vc | 0.877 | m3/kmol | Joback Method |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 660.78 | J/mol×K | 821.32 | Joback Method |
| cpg | 675.75 | J/mol×K | 864.21 | Joback Method |
| cpg | 689.67 | J/mol×K | 907.09 | Joback Method |
| cpg | 702.71 | J/mol×K | 949.98 | Joback Method |
| cpg | 715.07 | J/mol×K | 992.87 | Joback Method |
| cpg | 726.92 | J/mol×K | 1035.75 | Joback Method |
| cpg | 738.45 | J/mol×K | 1078.64 | Joback Method |

# 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=C2398961&Units=SI

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

**Crippen Method:** https://www.chemeo.com/doc/models/crippen_log10ws

# Legend

| | |
|---|---|
| **cpg:** | Ideal gas heat capacity |
| **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 |