# Carbaril

**Other names:**

.alpha.-naphthalenyl methylcarbamate
.alpha.-naphthyl methylcarbamate
1-Naphthalenol, 1-(N-methylcarbamate)
1-Naphthalenol, methylcarbamate
1-Naphthol N-methylcarbamate
1-Naphthyl N-methylcarbamate
1-Naphthyl N-methylcarbamateacid O,O-diethyl ester
1-Naphthyl methylcarbamate
1-naphthalenyl methylcarbamate
Adios
Arilat
Arilate
Arylam
Atoxan
Bercema NMC50
Caprolin
Carbamic acid, N-methyl,1-naphthyl ester
Carbamic acid, N-methyl-1-naphthyl-
Carbamic acid, methyl-, 1-naphthyl ester
Carbamine
Carbarilo
Carbarilum
Carbaryl
Carbatox
Carbatox 75
Carbatox-60
Carbavur
Carbomate
Carpolin
Carylderm
Clinicide
Compound 7744
Crag sevin
Denapon
Derbac
Dicarbam
Dicarbament 23,969
Dyna-carbyl
ENT-23969
Experimental Insecticide 7744

Gamonil
Germain's
Hexavin
Karbaryl
Karbaspray
Karbatox
Karbatox 75
Karbosep
Laivin
Menaphtam
Methylcarbamate, 1-naphthalenol
Methylcarbamic acid, 1-naphthyl ester
Monsur
Mugan
Murvin
N-Methyl-1-naftyl-carbamaat
N-Methyl-1-naphthyl carbamate
N-Methyl-1-naphthyl-carbamat
N-Methyl-«alpha»-Naphthylcarbamate
N-Methyl-«alpha»-naphthylurethan
N-Methyl-Â«alphaÂ»-Naphthylcarbamate
N-Methyl-Â«alphaÂ»-naphthylurethan
N-Methylcarbamate de 1-naphtyle
N-Metil-1-naftil-carbammato
NAC
NMC 50
OMS-29
Oltitox
Panam
Pomex
Prosevor 85
Ravyon
SOK
Seffein
Septene
Sevimol
Sevin
Sevin 4
Sevin SL
Sewin
Suleo
Thinsec
Tornado

Tricarnam
UC 7744
Union Carbide 7744
Vetox
Vetox 85
Vioxan
naphthalen-1-yl N-methylcarbamate
«alpha»-Naftyl-N-methylkarbamat
«alpha»-Naphthalenyl methylcarbamate
«alpha»-Naphthyl N-methylcarbamate
«alpha»-Naphthyl methylcarbamate
Â«alphaÂ»-Naftyl-N-methylkarbamat
Â«alphaÂ»-Naphthalenyl methylcarbamate
Â«alphaÂ»-Naphthyl N-methylcarbamate
Â«alphaÂ»-Naphthyl methylcarbamate

**Inchi:** InChI=1S/C12H11NO2/c1-13-12(14)15-11-8-4-6-9-5-2-3-7-10(9)11/h2-8H,1H3,(H,13,14)
**InchiKey:** CVXBEEMKQHEXEN-UHFFFAOYSA-N
**Formula:** C12H11NO2
**SMILES:** CNC(=O)Oc1cccc2ccccc12
**Mol. weight [g/mol]:** 201.22
**CAS:** 63-25-2

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 115.06 | kJ/mol | Joback Method |
| hf | -66.21 | kJ/mol | Joback Method |
| hfus | 25.39 | kJ/mol | Joback Method |
| hvap | 62.48 | kJ/mol | Joback Method |
| log10ws | -2.94 | | Aqueous Solubility Prediction Method |
| log10ws | -3.22 | | Estimated Solubility Method |
| logp | 2.558 | | Crippen Method |
| mcvol | 154.140 | ml/mol | McGowan Method |
| pc | 3265.31 | kPa | Joback Method |
| rinpol | 1915.00 | | NIST Webbook |
| rinpol | 1903.00 | | NIST Webbook |
| rinpol | 1903.00 | | NIST Webbook |
| rinpol | 1912.00 | | NIST Webbook |
| rinpol | 1865.00 | | NIST Webbook |

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|---|---|---|---|
| rinpol | 1871.00 | | NIST Webbook |
| rinpol | 1910.00 | | NIST Webbook |
| ripol | 2826.00 | | NIST Webbook |
| tb | 651.06 | K | Joback Method |
| tc | 884.28 | K | Joback Method |
| tf | 415.50 ± 0.20 | K | NIST Webbook |
| tf | 415.90 ± 0.20 | K | NIST Webbook |
| tf | 416.89 ± 0.20 | K | NIST Webbook |
| tf | 415.90 | K | Aqueous Solubility Prediction Method |
| vc | 0.581 | m3/kmol | Joback Method |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 439.72 | J/mol×K | 845.41 | Joback Method |
| cpg | 384.13 | J/mol×K | 651.06 | Joback Method |
| cpg | 397.06 | J/mol×K | 689.93 | Joback Method |
| cpg | 409.02 | J/mol×K | 728.80 | Joback Method |
| cpg | 420.08 | J/mol×K | 767.67 | Joback Method |
| cpg | 430.30 | J/mol×K | 806.54 | Joback Method |
| cpg | 448.41 | J/mol×K | 884.28 | Joback Method |
| hfust | 24.51 | kJ/mol | 416.30 | NIST Webbook |

# Sources

**NIST Webbook:** http://webbook.nist.gov/cgi/cbook.cgi?ID=C63252&Units=SI

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

**Thermodynamics of dissolution for 1-naphtol N-methylcarbamate in pure, mineral and Mediterranean sea water by dynamic saturation method:** https://www.doi.org/10.1016/j.fluid.2007.11.012

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

**Aqueous Solubility Prediction Method:** http://onschallenge.wikispaces.com/file/view/AqueousDataset002.xlsx/351826032/AqueousDa

**Estimated Solubility Method:** http://pubs.acs.org/doi/suppl/10.1021/ci034243x/suppl_file/ci034243xsi20040112_053635.txt

**McGowan Method:** http://link.springer.com/article/10.1007/BF02311772

# 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 |
| **hfust:** | Enthalpy of fusion at a given temperature |
| **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 |
| **rinpol:** | Non-polar retention indices |
| **ripol:** | Polar retention indices |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |