# Monocrotophos

**Other names:**

(E)-Dimethyl 1-methyl-3-(methylamino)-3-oxo-1-propenyl phosphate
3-(Dimethoxyphosphinyloxy)N-methyl-cis-crotonamide
3-Hydroxy-N-methyl-cis-crotonamide dimethyl phosphate
Apadrin
Azodrin
Azodrin 202R
Azodrin insecticide
Azodrin-71
Biloborn
Bilobran
C 1414
CIBA 1414
Corophos
Crisodin
Crisodrin
Croton 36
Crotonamide, 3-hydroxy-N-methyl-, dimethylphosphate, cis-
Des-N-Methyl dicrotophos
Dimethyl (E)-1-methyl-2-methylcarbamoylvinyl phosphate
Dimethyl 1-methyl-2-(methylcarbamoyl)vinyl phosphate, cis
Dimethyl phosphate ester of 3-hydroxy-N-methyl-cis-crotonamide
Dimethyl phosphate ester with (E)-3-hydroxy-N-methylcrotonamide
Dimethyl phosphate of 3-hydroxy-N-methyl-cis-crotonamide
E-Monocrotophos
ENT 27,129
Glore phos 36
Hazodrin
Monocil
Monocil 40
Monocron
Monodrin
Monokrotofosz
Monostar
Nuvacron
Nuvacron-20
O,O-Dimethyl-O-(1-methyl-2-N-methyl-carbamoyl)-vinyl-phosphat
O,O-Dimethyl-O-(2-N-methylcarbamoyl-1-methyl)-vinyl-phosphat
O,O-Dimethyl-O-(2-N-methylcarbamoyl-1-methyl-vinyl) phosphate
O,O-Dimethyl-O-(2-N-methylcarbamoyl-1-methyl-vinyl)-fosfaat
O,O-Dimetil-O-(2-N-metilcarbamoil-1-metil-vinil)-fosfato

OMS 834
Parryfos
Phosphate de dimethyle et de 2-methylcarbamoyl 1-methyl vinyle
Phosphoric acid, dimethyl (1E)-1-methyl-3-(methylamino)-3-oxo-1-propenyl ester
Phosphoric acid, dimethyl 1-methyl-3-(methylamino)-3-oxo-1-propenyl ester, (E)-
Phosphoric acid, dimethyl ester, ester with (E)-3-hydroxy-N-methylcrotonamide
Phosphoric acid, dimethyl ester, ester with 3-hydroxy-N-methylcrotonamide, (E)-
Phosphoric acid, dimethyl ester, ester with cis-3-hydroxy-N-methylcrotonamide
Pillardrin
Plantdrin
SD 9129
Shell sd 9129
Susvin
Ulvair

**Inchi:** InChI=1S/C7H14NO5P/c1-6(5-7(9)8-2)13-14(10,11-3)12-4/h5H,1-4H3,(H,8,9)/b6-5+
**InchiKey:** KRTSDMXIXPKRQR-AATRIKPKSA-N
**Formula:** C7H14NO5P
**SMILES:** CNC(=O)C=C(C)OP(=O)(OC)OC
**Mol. weight [g/mol]:** 223.16
**CAS:** 6923-22-4

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| log10ws | 0.65 | | Aqueous Solubility Prediction Method |
| log10ws | 0.65 | | Estimated Solubility Method |
| logp | 1.054 | | Crippen Method |
| mcvol | 160.680 | ml/mol | McGowan Method |
| tf | 328.12 ± 0.20 | K | NIST Webbook |
| tf | 328.50 ± 0.10 | K | NIST Webbook |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| hfust | 22.36 | kJ/mol | 326.90 | NIST Webbook |

# Sources

| | |
|---|---|
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=C6923224&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **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

| | |
|---|---|
| **hfust:** | Enthalpy of fusion at a given temperature |
| **log10ws:** | Log10 of Water solubility in mol/l |
| **logp:** | Octanol/Water partition coefficient |
| **mcvol:** | McGowan's characteristic volume |
| **tf:** | Normal melting (fusion) point |