

# Benzaldehyde, 2-methyl-, (2,4-dinitrophenyl)hydrazone

**Other names:** o-Tolualdehyde, (2,4-dinitrophenyl)hydrazone

o-Tolualdehyde-2,4-DNPH

N-[(2-methylphenyl)methylideneamino]-2,4-dinitro-aniline

**Inchi:** InChI=1S/C14H12N4O4/c1-10-4-2-3-5-11(10)9-15-16-13-7-6-12(17(19)20)8-14(13)18(21)

**InchiKey:** QUIFNJPMGQCNMH-UHFFFAOYSA-N

**Formula:** C14H12N4O4

**SMILES:** Cc1ccccc1C=NNc1ccc([N+](=O)[O-])cc1[N+](=O)[O-]

**Mol. weight [g/mol]:** 300.27

**CAS:** 1773-44-0

## Physical Properties

| Property code | Value   | Unit   | Source         |
|---------------|---------|--------|----------------|
| hf            | 220.53  | kJ/mol | Joback Method  |
| hvap          | 96.23   | kJ/mol | Joback Method  |
| log10ws       | -5.13   |        | Crippen Method |
| logp          | 3.257   |        | Crippen Method |
| mcvol         | 211.100 | ml/mol | McGowan Method |
| pc            | 2467.81 | kPa    | Joback Method  |
| tb            | 1018.55 | K      | Joback Method  |
| tc            | 1301.04 | K      | Joback Method  |

## Sources

**Crippen Method:** <http://pubs.acs.org/doi/abs/10.1021/ci9903071>

**Crippen Method:** [https://www.chemeo.com/doc/models/crippen\\_log10ws](https://www.chemeo.com/doc/models/crippen_log10ws)

**Joback Method:** [https://en.wikipedia.org/wiki/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=C1773440&Units=SI>

## Legend

|                                       |   |
|---------------------------------------|---|
| <b>hf:</b>                            | Enthalpy of formation at standard conditions    |
| <b>h<sub>vap</sub>:</b>               | Enthalpy of vaporization at standard conditions |
| <b>log<sub>10</sub>w<sub>s</sub>:</b> | Log <sub>10</sub> of Water solubility in mol/l  |
| <b>log<sub>p</sub>:</b>               | Octanol/Water partition coefficient             |
| <b>mc<sub>vol</sub>:</b>              | McGowan's characteristic volume                 |
| <b>pc:</b>                            | Critical Pressure                               |
| <b>tb:</b>                            | Normal Boiling Point Temperature                |
| <b>tc:</b>                            | Critical Temperature                            |

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