

# 1-Naphthalenol, 2,4-dinitro-

<b>Other names:</b>	Martius Yellow 1-Naphthol, 2,4-dinitro- Martinsgelb 2,4-Dinitro-1-naphthol 2,4-Dinitronaphthol Golden Yellow Manchester Yellow Maritus Yellow Naphthylene Yellow Saffron Yellow 2-4 Dinitro-«alpha»-naphtol C.I. 10315 2,4-Dinitro-1-naftol Zlut marciova Zlut naftolova NSC 6148
<b>Inchi:</b>	InChI=1S/C10H6N2O5/c13-10-7-4-2-1-3-6(7)8(11(14)15)5-9(10)12(16)17/h1-5,13H
<b>InchiKey:</b>	FFRBMBIXVSCUFS-UHFFFAOYSA-N
<b>Formula:</b>	C10H6N2O5
<b>SMILES:</b>	O=[N+]([O-])c1cc([N+](=O)[O-])c2ccccc2c1O
<b>Mol. weight [g/mol]:</b>	234.16
<b>CAS:</b>	605-69-6

## Physical Properties

Property code	Value	Unit	Source
chs	-4611.20 ± 4.60	kJ/mol	NIST Webbook
gf	149.60	kJ/mol	Joback Method
hf	-43.90	kJ/mol	Joback Method
hfs	-172.00	kJ/mol	NIST Webbook
hfus	40.44	kJ/mol	Joback Method
hvap	89.29	kJ/mol	Joback Method
log10ws	-4.13		Crippen Method
logp	2.362		Crippen Method
mcvol	149.250	ml/mol	McGowan Method
pc	4697.74	kPa	Joback Method
tb	868.12	K	Joback Method
tc	1157.60	K	Joback Method

tf	685.56	K	Joback Method
vc	0.539	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	410.60	J/mol×K	868.12	Joback Method
cpg	419.54	J/mol×K	916.37	Joback Method
cpg	428.29	J/mol×K	964.61	Joback Method
cpg	437.09	J/mol×K	1012.86	Joback Method
cpg	446.16	J/mol×K	1061.11	Joback Method
cpg	455.72	J/mol×K	1109.35	Joback Method
cpg	466.00	J/mol×K	1157.60	Joback Method

## Sources

<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C605696&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C605696&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</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>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>chs:</b>	Standard solid enthalpy of combustion
<b>cpg:</b>	Ideal gas heat capacity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfs:</b>	Solid phase 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>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure

**tb:** Normal Boiling Point Temperature  
**tc:** Critical Temperature  
**tf:** Normal melting (fusion) point  
**vc:** Critical Volume

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