

# HCOONH<sub>2</sub>

**Inchi:** InChI=1S/CH3NO2/c3-1-2-4/h1,4H,(H,2,3)  
**InchiKey:** KDGKTJGPFIXIBEB-UHFFFAOYSA-N  
**Formula:** CH3NO2  
**SMILES:** O=CNO  
**Mol. weight [g/mol]:** 61.04  
**CAS:** 4312-87-2

## Physical Properties

Property code	Value	Unit	Source
affp	834.70	kJ/mol	NIST Webbook
basg	802.20	kJ/mol	NIST Webbook
gf	-189.41	kJ/mol	Joback Method
hf	-248.31	kJ/mol	Joback Method
hfus	9.82	kJ/mol	Joback Method
hvap	47.66	kJ/mol	Joback Method
log10ws	1.14		Crippen Method
logp	-0.878		Crippen Method
mcvol	42.370	ml/mol	McGowan Method
pc	7762.62	kPa	Joback Method
tb	413.29	K	Joback Method
tc	589.97	K	Joback Method
tf	256.51	K	Joback Method
vc	0.163	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	77.11	J/mol×K	413.29	Joback Method
cpg	80.23	J/mol×K	442.74	Joback Method
cpg	83.22	J/mol×K	472.18	Joback Method
cpg	86.08	J/mol×K	501.63	Joback Method
cpg	88.81	J/mol×K	531.08	Joback Method
cpg	91.41	J/mol×K	560.52	Joback Method
cpg	93.89	J/mol×K	589.97	Joback Method

# Sources

<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C4312872&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C4312872&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>

# Legend

<b>affp:</b>	Proton affinity
<b>basg:</b>	Gas basicity
<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>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
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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