

# Linuron

**Other names:**

1-(3,4-Dichlorophenyl)3-methoxy-3-methyluree  
1-Methoxy-1-methyl-3-(3,4-dichlorophenyl)urea  
3-(3,4-Dichloro-fenyl)-1-methoxy-1-methylureum  
3-(3,4-Dichlor-phenyl)-1-methoxy-1-methyl-harnstoff  
3-(3,4-Dichloro-fenil)-1-metossi-1-metil-urea  
3-(3,4-Dichlorophenyl)-1-methoxy-1-methylurea  
3-(4,5-Dichlorphenyl)-1-methoxy-1-methylharnstoff  
Afalon  
Afalon inuron  
Alfalon  
Aphalon  
Atlas linuron  
Cephalon  
Du Pont 326  
DuPont Herbicide 326  
Garnitan  
HOE 2810  
Herbicide 326  
Laroks  
Linex 4L  
Linorox  
Linurex  
Lorex  
Lorox  
Lorox linuron weed killer  
Methoxydiuron  
N'-(3,4-Dichlorophenyl)-N-methoxy-N-methylurea  
N'-(3,4-dichlorophenyl)-N-methoxy-N-methylurea (linuron)  
N-(3,4-Dichlorophenyl)-N'-methyl-N'-methoxyurea  
N-(3,4-Dwuchlorofenylo)N'-metoksy-N'-metylomocznik  
Norunil  
Rotalin  
Sarclex  
Scarclex  
Sinuron  
Urea, 3-(3,4-dichlorophenyl)-1-methoxy-1-methyl-  
Urea, N'-(3,4-dichlorophenyl)-N-methoxy-N-methyl-

**Inchi:**

InChI=1S/C9H10Cl2N2O2/c1-13(15-2)9(14)12-6-3-4-7(10)8(11)5-6/h3-5H,1-2H3,(H,12,1

**InchiKey:**

XKJMBINCVNINCA-UHFFFAOYSA-N

**Formula:**

C9H10Cl2N2O2

**SMILES:** CON(C)C(=O)Nc1ccc(Cl)c(Cl)c1  
**Mol. weight [g/mol]:** 249.09  
**CAS:** 330-55-2

## Physical Properties

Property code	Value	Unit	Source
gf	60.44	kJ/mol	Joback Method
hf	-170.78	kJ/mol	Joback Method
hfus	31.63	kJ/mol	Joback Method
hvap	65.63	kJ/mol	Joback Method
log10ws	-3.56		Aqueous Solubility Prediction Method
log10ws	-3.59		Estimated Solubility Method
logp	3.018		Crippen Method
mcvol	165.790	ml/mol	McGowan Method
pc	3093.29	kPa	Joback Method
rinpol	1952.00		NIST Webbook
rinpol	1960.00		NIST Webbook
rinpol	1952.00		NIST Webbook
rinpol	1952.00		NIST Webbook
rinpol	1927.00		NIST Webbook
rinpol	1884.00		NIST Webbook
tb	655.72	K	Joback Method
tc	878.05	K	Joback Method
tf	366.76 ± 0.20	K	NIST Webbook
tf	365.90 ± 0.20	K	NIST Webbook
tf	366.40	K	Aqueous Solubility Prediction Method
vc	0.607	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	383.49	J/mol×K	655.72	Joback Method
cpg	394.50	J/mol×K	692.77	Joback Method
cpg	404.73	J/mol×K	729.83	Joback Method
cpg	414.21	J/mol×K	766.88	Joback Method

cpg	422.96	J/mol×K	803.94	Joback Method
cpg	431.00	J/mol×K	840.99	Joback Method
cpg	438.36	J/mol×K	878.05	Joback Method
hfust	26.56	kJ/mol	365.80	NIST Webbook
hfust	26.56	kJ/mol	365.80	NIST Webbook
hfust	24.53	kJ/mol	315.00	NIST Webbook

## Sources

<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C330552&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C330552&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>
<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>
<b>Aqueous Solubility Prediction Method:</b>	<a href="http://onschallenge.wikispaces.com/file/view/AqueousDataset002.xlsx/351826032/AqueousDa">http://onschallenge.wikispaces.com/file/view/AqueousDataset002.xlsx/351826032/AqueousDa</a>
<b>Estimated Solubility Method:</b>	<a href="http://pubs.acs.org/doi/suppl/10.1021/ci034243x/suppl_file/ci034243xsi20040112_053635.txt">http://pubs.acs.org/doi/suppl/10.1021/ci034243x/suppl_file/ci034243xsi20040112_053635.txt</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>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>hfust:</b>	Enthalpy of fusion at a given temperature
<b>hvp:</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>rinpol:</b>	Non-polar retention indices
<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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