

2,3-Butanedione, dioxime

Other names:	Diacetyldioxime Dimethylglyoxime 2,3-Diisonitrosobutane 2,3-Butadione dioxime Biacetyl, dioxime Glyoxime, dimethyl- Chugaev's reagent Named reagents and solutions, chugaev's Butane-2,3-dione dioxime 2,3-Butanedione, 2,3-dioxime NSC 9 Reagents, Chugaev's butanedione dioxime
Inchi:	InChI=1S/C4H8N2O2/c1-3(5-7)4(2)6-8/h7-8H,1-2H3
InchiKey:	JGUQDUKBUKFFRO-UHFFFAOYSA-N
Formula:	C4H8N2O2
SMILES:	CC(=NO)C(C)=NO
Mol. weight [g/mol]:	116.12
CAS:	95-45-4

Physical Properties

Property code	Value	Unit	Source
chs	-2555.60	kJ/mol	NIST Webbook
chs	-2543.00	kJ/mol	NIST Webbook
hf	-285.49	kJ/mol	Joback Method
hvap	64.64	kJ/mol	Joback Method
log10ws	0.87		Crippen Method
logp	0.687		Crippen Method
mcvol	90.320	ml/mol	McGowan Method
pc	3819.82	kPa	Joback Method
tb	628.40	K	Joback Method
tc	823.46	K	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
hsubt	96.80	kJ/mol	341.50	NIST Webbook

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
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=C95454&Units=SI

Legend

chs:	Standard solid enthalpy of combustion
hf:	Enthalpy of formation at standard conditions
hsubt:	Enthalpy of sublimation at a given temperature
hvp:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature

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