Glyburide

Other names:

1-((p-(2-(5-Chloro-o-anisamido)ethyl)phenyl)sulfonyl)-3-cyclohexyl urea
1-(p-(2-(5-Chloro-2-methoxybenzamido)ethyl)benzenesulfonyl)-3-cyclohexylurea
5-Chloro-N-(2-(4-((((cyclohexylamino)carbonyl)amino)sulfonyl)phenyl)ethyl)-2-methoxybe
5-Chloro-N-[2-[4-[[[(cyclohexylamino)carbonyl]amino]sulfonyl]phenyl]ethyl]-2-methoxyben
5-chloro-N-(4-(N-(cyclohexylcarbamoyl)sulfamoyl)phenethyl)-2-methoxybenzamide (glyburide)
5-chloro-N-[2-[4-(cyclohexylcarbamoylsulfamoyl)phenyl]ethyl]-2-methoxybenzamide
Abbenclamide
Adiab
Apo-Glibenclamide
Azuglucon
Bastiverit
Benclamin
Benzamide, 5-chloro-N-[2-[4-[[[(cyclohexylamino)carbonyl]amino]sulfonyl]phenyl]ethyl]-2-methoxy-
Betanase
Daonil
Diabeta
Diabiphage
Dibelet
Duraglucon
Euglucan
Euglucon
Euglucon 5
Euglykon
Gilemal
Glibadone
Glibenclamide
Glibenil
Glibens
Glibil
Glimel
Glimide
Glucolon
Glybenzcyclamide
Glynase
HB 419
HD 419
Humedia
Libanil
Maninil
Med-Glionil

Melix
Micronase
N-(4-(2-(5-Chloro-2-methoxybenzamido)ethyl)phenylsulfonyl)-N'-cyclohexylurea
N-(4-(«beta»-(2-Methoxy-5-chlorbenzamido)-aethyl)-benzolsulfonyl)-N'-cyclohexyl-harnst
N-(4-(Â«betaÂ»-(2-Methoxy-5-chlorbenzamido)-aethyl)-benzolsulfonyl)-N'-cyclohexyl-har
Orabetic
Pira
Prodiabet
Renabetic
Semi-Daonil
Suraben
Tiabet
U 26452
UR 606
Urea, 1-((p-(2-(chloro-o-anisamido)ethyl)phenyl)sulfonyl)-3-cyclohexyl-
Urea, 1-(p-(2-(5-chloro-2-methoxybenzamido)ethyl)benzenesulfonyl)-3-cyclohexyl-
Yuglucon

Inchi: InChI=1S/C23H28ClN3O5S/c1-32-21-12-9-17(24)15-20(21)22(28)25-14-13-16-7-10-19(1
InchiKey: ZNNLBTZKUZBEKO-UHFFFAOYSA-N
Formula: C23H28ClN3O5S
SMILES: COc1ccc(Cl)cc1C(=O)NCCc1ccc(S(=O)(=O)NC(=O)NC2CCCCC2)cc1
Mol. weight [g/mol]: 494.00
CAS: 10238-21-8

Physical Properties

Property code	Value	Unit	Source
gf	-211.98	kJ/mol	Joback Method
hf	-691.14	kJ/mol	Joback Method
hfus	69.33	kJ/mol	Joback Method
hvap	131.99	kJ/mol	Joback Method
log10ws	-5.09		Aqueous Solubility Prediction Method
logp	3.642		Crippen Method
mcvol	355.830	ml/mol	McGowan Method
pc	1829.41	kPa	Joback Method
rinpol	3531.00		NIST Webbook
tb	1179.37	K	Joback Method
tc	1443.97	K	Joback Method
tf	443.27	K	Aqueous Solubility Prediction Method

tf	446.98	K	Solubility Determination and Correlation of Glibenclamide in 11 Monosolvents and (Acetone + Acetonitrile) Binary Solvents from 283.15 K to 323.15 K
vc	1.351	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1169.90	J/mol×K	1179.37	Joback Method
cpg	1173.89	J/mol×K	1223.47	Joback Method
cpg	1175.70	J/mol×K	1267.57	Joback Method
cpg	1175.41	J/mol×K	1311.67	Joback Method
cpg	1173.09	J/mol×K	1355.77	Joback Method
cpg	1168.82	J/mol×K	1399.87	Joback Method
cpg	1162.69	J/mol×K	1443.97	Joback Method
hfust	46.30	kJ/mol	446.80	NIST Webbook
hfust	53.35	kJ/mol	450.20	NIST Webbook

Sources

Joback Method:	https://en.wikipedia.org/wiki/Joback_method
Aqueous Solubility Prediction Method:	http://onschallenge.wikispaces.com/file/view/AqueousDataset002.xlsx/351826032/AqueousDa
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C10238218&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Solubility Determination and Correlation of Glibenclamide in 11 Monosolvents and (Acetone + Acetonitrile) Binary Solvents from 283.15 K to 323.15 K:	https://www.doi.org/10.1021/acs.jced.8b00717

Legend

cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hfust:	Enthalpy of fusion at a given temperature

hvap:	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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume