

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-methoxybenzamide

5-Chloro-N-[2-[4-[[[(cyclohexylamino)carbonyl]amino]sulfonyl]phenyl]ethyl]-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

Euglucon

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-(«beta»-(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
rinpola	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	m ³ /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/ci990307i>

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

h_{vap}:	Enthalpy of vaporization at standard conditions
log₁₀w_s:	Log10 of Water solubility in mol/l
log_p:	Octanol/Water partition coefficient
m_{cvol}:	McGowan's characteristic volume
p_c:	Critical Pressure
r_{inpol}:	Non-polar retention indices
t_b:	Normal Boiling Point Temperature
t_c:	Critical Temperature
t_f:	Normal melting (fusion) point
v_c:	Critical Volume

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