


Specification

Guanidine Hydrochloride *BioChemica*

A1499

Solubility:	2000 g/L (H ₂ O)
Physical Description:	Solid
Product Code:	A1499
Product Name:	Guanidine Hydrochloride <i>BioChemica</i>
Specifications:	<p>Assay (titr.): min. 99 %</p> <p>pH (5 %; H₂O; 25°C): 4.0 - 6.0</p> <p>Insoluble matter: passes test</p> <p>Water: max. 0.5 %</p> <p>Ammonium: max. 0.05 %</p> <p>Fe: max. 0.0005 %</p> <p>Pb: max. 0.0005 %</p> <p>A (1 cm/50 % in water HPLC grade)</p> <p>260 nm: max. 0.1</p> <p>280 nm: max. 0.05</p>
Hazard pictograms	
WGK:	1
Storage:	RT
Signal Word:	Attention
GHS Symbols:	GHS07
H Phrases:	<p>H302+H332</p> <p>H315</p> <p>H319</p>
P Phrases:	P261

AppliChem GmbH

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Specification

Guanidine Hydrochloride *BioChemica*

A1499

	P280 P302+P352 P304+P340 P305+P351+P338
Molecular Formula:	$\text{CH}_5\text{N}_3 \cdot \text{HCl}$
M:	95.53 g/mol
CAS:	50-01-1
EINECS:	200-002-3
CS:	29252900
Index Nr.:	607-148-00-0
Comment	<p>Guanidine hydrochloride denatures proteins and inhibits nucleases. It is applied at high concentrations for the isolation of non-degraded RNA (e. g. stock solution 7.5 M; ref. 1). β-Mercaptoethanol or DTT increase the denaturing activity of guanidine hydrochloride, since they break intramolecular disulfide bonds. Guanidine thiocyanate acts even stronger than guanidine hydrochloride as a denaturant and is used for 'valuable' samples/assays. Strongly hydrophobic proteins, like the membrane protein lipophilin will not be denatured by guanidine hydrochloride (2).</p>
Bibliography	<p>(1)MacDonald, R.J. <i>et al.</i> (1987) <i>Methods Enzymol.</i> 152, 219-227Isolation of RNA using guanidinium salts. (2)Cockle, S.A. <i>et al.</i> (1978) <i>J. Biol. Chem.</i> 253, 8019-8026Resistance of lipophilin, a hydrophobic myelin protein, to denaturation by urea and guanidinium salts.</p>

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