

Specification

HEPES for buffer solutions

A1069

Physical Description:	Solid
Product Code:	A1069
Product Name:	HEPES for buffer solutions
Specifications:	<p>Assay (titr.): min. 99.5 %</p> <p>pH (1 %; H₂O): 4.7 - 6.0</p> <p>Heavy metals (as Pb): max. 0.001 %</p> <p>Water: max. 0.5 %</p> <p>Chloride: max. 0.05 %</p> <p>Sulfate: max. 0.05 %</p>
WGK:	1
Storage:	RT
Molecular Formula:	C ₈ H ₁₈ N ₂ O ₄ S
M:	238.31 g/mol
CAS:	7365-45-9
EINECS:	230-907-9
CS:	29335995
Comment	<p>Hepes is a widely used buffer in biological studies. There is only one restriction in the use of this buffer, because it interferes with the Folin protein assay. In cell culture media, it is employed as a substitute for the bicarbonate buffer at a concentration of 25 mM or as a supplement to the bicarbonate buffer (concentration 10 - 15 mM). The addition of 20 mM HEPES to TBE buffer improves the migration behaviour of certain samples in the SSCP analysis (single-strand conformation polymorphism), with a higher resolution especially if small differences in the sequences between certain bands are wanted (5).</p>

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Bibliography

(1)Good, N.E. *et al.* (1966) *Biochemistry* **5**, 467-477Hydrogen ion buffers for biological research. (2)Shipman, C. (1969) *Proc. Soc. Exp. Biol. Med.* **130**, 305-310Evaluation of Hepes as a tissue culture buffer. (3)Good, N.E. & Izawa, S. (1972) *Methods Enzymol.* **24**, 53-68Hydrogen ion buffers. (4)Ferguson, W.J. *et al.* (1980) *Anal. Biochem.* **104**, 300-310Hydrogen ion buffers for biological research. (5)Liu, Q. & Sommer, S.S. (1998) *Biotechniques* **25**, 50-56The SSCP-Phenomenon\; Addition of HEPES influences the electrophoretical mobility.