

CERTIFICATE OF ANALYSIS

PRODUCT NAME: HEPES
 N-(2-Hydroxyethyl)piperazine-N'-(2-ethanesulfonic acid)
 CAS NO. 7365-45-9
 FORMULA: $C_8H_{18}N_2O_4S$
 BATCH NO. 25/MFM/3221
 EXPIRY DATE: 25th July 2027
 STORAGE: Room Temperature

TESTS	SPECS	RESULTS
Appearance	White crystalline free-flowing powder	Complies
Assay (Titration, Dry basis)	$\geq 99.5\%$	99.6%
Loss on drying (105°C, 4hr)	$\leq 0.5\%$	0.48%
Water Content	$\leq 0.5\%$	0.32%
Infrared	Complies	Complies
pH 1% Di H ₂ O	4.8 – 5.6 (25°C)	5.2
Solubility 1M water	Clear, colourless solution	Complies
Residue on ignition	$\leq 0.1\%$	Complies
A ₂₆₀ , 1M water	≤ 0.045	0.042
A ₂₈₀ , 1M water	≤ 0.035	0.032
A ₄₂₀ , 1M water	≤ 0.020	0.018
Heavy metals (Pb)	≤ 5 ppm	Complies
pKa at 20°C	7.35 – 7.69	7.42

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17th November 2025