

**CERTIFICATE OF ANALYSIS**

PRODUCT NAME: HEPES  
N-(2-Hydroxyethyl)piperazine-N'-(2-ethanesulfonic acid )

CAS NO. 7365-45-9

FORMULA: C<sub>8</sub>H<sub>18</sub>N<sub>2</sub>O<sub>4</sub>S

BATCH NO. 22/MFM/2884

EXPIRY DATE: 12 Feb 2025

STORAGE: Room Temperature

TESTS	SPECS	RESULTS
Appearance	White crystalline free-flowing powder	Complies
Assay (Titration, Dry basis)	>= 99.5%	99.6%
Loss on drying (105°C, 4hr)	<= 0.5%	0.47%
Water Content	<= 0.5%	0.31%
Infrared	Complies	Complies
pH 1% Di H <sub>2</sub> O	4.8 – 5.6 (25°C)	5.0
Solubility 1M water	Clear, colourless solution	Complies
Residue on ignition	<= 0.1%	Complies
A <sub>260</sub> , 1M water	≤0.045	0.041
A <sub>280</sub> , 1M water	≤0.035	0.020
A <sub>420</sub> , 1M water	≤0.020	0.018
Heavy metals (Pb)	≤ 5 ppm	Complies
pKa 12 20°C	7.35 – 7.69	7.55

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05<sup>th</sup> May 2022