

## Certificate of Analysis

### Protamine Sulfate Reference Standard

Product No.: NKC0592

Product Information	
<b>Cas No.:</b>	9009-65-8.
<b>Molecular Formula:</b>	$C_{166}H_{317}N_{95}O_{37}$ , $C_{170}H_{326}N_{98}O_{36}$ , $C_{167}H_{319}N_{95}O_{37}$ and $C_{160}H_{309}N_{93}O_{33}$ .
<b>Molecular Weight:</b>	372.42 g/mol.
<b>Grade:</b>	Reference Standard.
<b>Storage:</b>	2 to 8 °C (Refrigerate)
<b>MFG Date:</b>	Oct-2025.
<b>EXP Date:</b>	Oct-2030.
<b>Batch No.:</b>	NKSR2075027.

Test	Specification	Result
<b>Appearance (Colour)</b>	White to almost white	White
<b>Appearance (Form)</b>	Powder	Powder
<b>Solubility (Turbidity) 1% aq. solution</b>	Clear	Clear
<b>Solubility (Colour) 1% aq. solution</b>	Colourless	Colourless
<b>Assay (HPLC) (as is basis)</b>	90.0-110.0%	95.2%
<b>Absorbance (A) of 1% aq. solution in a 1cm cell v/s H<sub>2</sub>O</b>		
<b>@260nm</b>	max. 0.1	0.023
<b>@280nm</b>	max. 0.1	0.015
<b>Loss on drying at 105°C</b>	max. 5%	3.7%
<b>Iron (Fe)</b>	max. 0.001%	Passes
<b>DNase, RNase, Protease</b>	Not detected	Not detected

- The product complies with the prescribed standards of quality
- The product has been tested by the Quality Control Laboratory of N K Chem to the above specifications
- This is Electronic Generated Specification do not require signature
- Assay on as is basis (Assay on anhydrous basis X (100-water content))/100.