

Chem-Impex International, Inc.

Tel: (630) 766-2112

E-mail: sales@chemimpex.com

Shipping and Correspondence:

935 Dillon Drive

Wood Dale, IL 60191

Fax: (630) 766-2218

Web site: www.chemimpex.com

Manufacturing site:

825 Dillon Drive

Wood Dale, IL 60191

Certificate of Analysis

Catalogue Number	01520
Product	Protamine sulfate salt Salmon
Lot Number	001339-53051
	Salmine from Salmon
CAS Number	53597-25-4

Appearance	White to almost white powder, Hygroscopic!
Solubility	Passes test
Elemental Analysis (Found)	N = 24.3%
Heavy Metals	< 20 ppm
Anion	Sulfate : 18% (Dried substances)
Cation	Iron (Fe) : < 10 ppm Mecury (Hg) : < 10 ppm
Optical Rotation	$[\alpha]_D^{20} = -79^\circ$ (C=1 in 0.1 mol/L HCl)
Loss on Drying	2.8% (105 °C, 3h)
Residual Solvents	Ethanol: 2635 ppm
Bacterial Endotoxins	< 7.0 IU/mg
Assay	105 units of Heparin sodium/mg
Grade	USP, EP
Storage	Store at 0-8 °C
Additional Information	Abnormal toxicity: Within the limits UV Absorbance (260 to 280 nm): 260 nm = 0.022, 270 nm = 0.016, 280 nm = 0.016

Certificate of Analysis

Catalog Number: 01520

Lot Number: 001339-53051

Remarks

See material safety data sheet for additional information

For laboratory use only

The foregoing is a copy of the Certificate of Analysis as provided by our supplier

A handwritten signature in black ink, appearing to read 'Bala Kumar', with a stylized flourish at the end.

Bala Kumar
Quality Control Manager