Chem-Impex International, Inc.

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E-mail: sales@chemimpex.com Web site: www.chemimpex.com

825 Dillon Drive

Shipping and Correspondence: Manufacturing site:

Wood Dale, IL 60191 Wood Dale, IL 60191

Certificate of Analysis

Catalogue Number 21983

935 Dillon Drive

Product Putrescine dihydrochloride

Lot Number 002427-150211

1,4-Butanediamine dihydrochloride

1,4-Butanediammonium dichloride

CAS Number 333-93-7

Molecular Formula C₄H₁₂N₂•2HCl

Molecular Weight 161.08

Appearance White crystalline powder

Heavy Metals < 20 ppm

Anion Sulfate (SO_4^{2-}) : < 0.02%

Cation Iron (Fe): < 0.002%

Yeast and Mold < 100 cfu/g

Loss on Drying 0.19%
E. Coli Negative
Salmonella Negative
Residue On Ignition 0.11%
Assay 99.26%

Application Polyamine growth regulator

Storage Store at 0-8 °C

Additional Information Total plate count: < 1000 cfu/g

Certificate of Analysis

Catalog Number: 21983 Lot Number: 002427-150211

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

Bala Kumar

Quality Control Manager