GFS Chemicals, Inc. Columbus, Ohio 43223

LOT ANALYSIS ITEM:A4746 MANGANESE ACETATE, TETRAHYDRATE, REAGENT

LOT#:C148508

| Test | PASS/FAIL | NUMERICAL RESULT |
|-----------------------------|-----------|------------------|
| Assay 98.0% min | PASS | 102.4% |
| Insoluble 0.01% | PASS | <0.01% |
| Chloride 0.005% | PASS | < 0.005% |
| Sulfate 0.005% | PASS | <0.005% |
| Iron 0.001% | PASS | <0.001% |
| Heavy metals (as Pb) 0.005% | PASS | <0.005% |
| Nickel 10 ppm | PASS | 4 ppm |
| Copper 5 ppm | PASS | 1 ppm |

TRACEABLE TO N.I.S.T. (Y/N)? Y

Comment:

Reported by: Karen Hirsch QC Supervisor: Charles Fontaine

Quality Assured to Retest Point: 60 months from shipment

C/A Print Date: 12/22/2015

Not for direct use in food, cosmetics, finished pharmaceuticals or drug products. Supplier is not responsible for compliance with FDA Current Good Manufacturing Practice (CGMP) requirements, including without limitation those for finished drug products in 21 C.F.R Parts 210 and 211. Consult warranty limitations at www.gfschemicals.com/statics/documents/aboutus/termsandconditions.html For resale by GFS authorized distributors only.