



7511 Eastgate Road, Henderson, NV 89011 USA Tel.702-749-5450

CERTIFICATE OF ANALYSIS

Product:	Manganese Gluconate 11%	Manu. Date:	Apr 09 2013
Batch No.:	09135504	Expiry Date:	Apr 08 2016
Country of Origin:	USA		

Item	Specification	Result
Appearance	Fine light white pink powder, no offensive odor	Fine light white pink powder, no offensive odor
Limit of Content	10.3 to 11.8%	11.1%
Loss of Drying at 105°C	Not more than 8%	< 8%
Ash	Not more than 17%	< 17%
pH	4 to 6	4.3
Arsenic	Not more than 3.0ppm	< 1.0ppm
Mercury	Not more than 1.0ppm	< 0.1ppm
Lead	Not more than 2.0ppm	< 1.0ppm
Cadmium	Not more than 0.5ppm	< 0.5ppm
Reducing Substances	Not more than 1.0%	< 1.0%
Total Plate Count	Not more than 5000cfu/g	< 300cfu/g
Yeast & Mold	Not more than 300cfu/g	< 100cfu/g
Coliform Count	Negative	Negative
E. Coli	Negative	Negative
Salmonella SPP.	Negative	Negative
Staphylococcus Aureus	Negative	Negative
Test Methods	EPA6010, EPA3050 (ICP/MS), EPA6020 and MPN/USP.	

*This Certificate of Analysis is reflective of our supplier and /or independent laboratory.