



Giles Chemical, a division of Premier Magnesia, LLC.

102 Commerce Street Waynesville, NC 28786

Phone: 828-452-4784 Fax: 828-452-4786

USP Certificate of Analysis

Release Date: 7/10/2018

CUSTOMER :

CUST. REF:

SHIP DATE:

PRODUCT: Magnesium Sulfate - USP

TRAILER NUMBER:

SHELF LIFE: 3 Years

BILL OF LADING #:

LOT NUMBER: 2818

PO NUMBER #:

CARRIER:

MANUFACTURED:

CUST. CONTACT:

EXPIRATION:

I certify that this material meets all the requirements of the Giles Chemical sales specifications and the United States Pharmacopeia. Periodic testing has shown the samples to be consistently free of volatile organic impurities. Giles Chemical magnesium sulfate is manufactured under the guidelines of Current Good Manufacturing Practices (cGMP).

EPSOM SALT, Magnesium Sulfate - Heptahydrate, USP

METHOD	TEST	LOWER	UPPER	Test Results
VISUAL	Appearance	~~	~~	Clear
USP 40 *	Limit of Chloride <221>	~~	20 ppm	< 20 ppm
USP 40	Arsenic <231>	~~	3 ppm	< 3 ppm
USP 40	Limit of Iron <241>	~~	20 ppm	< 20 ppm
USP 40	Selenium <291>	~~	30 ppm	< 30 ppm
USP 40	Heavy Metals (as Pb) <231>	~~	10 ppm	< 10 ppm
USP 40	pH (5% Solution) <791>	5.0	9.2	6.08
USP 40	Loss on Ignition <733>	40.0	52.0	50.69%
USP 40	Assay, % MgSO4 (Dry Basis)	99.0	100.5	99.52%
Calculated from Assay & LOI	% MgSO4 (As is Basis)	47.52	60.3	49.07%
USP 40	ID, Magnesium <191>	~~	~~	Present
USP 40	ID, Sulfate <191>	~~	~~	Present

* Determined using USP 40 method modified for the concentration limit of 20 ppm

CONTACT:

ANALYST:

Quality Assurance Laboratory

SIGNATURE ON FILE

Brent Lance - Chemist

828-452-4784 ext. 31

Southern Ionics Spec Number: MgSO4-01