



Giles Chemical, a division of Premier Magnesia, LLC.
200 Brown St. Greendale, IN 47025
Phone: (812) 537-4852
USP Certificate of Analysis

Release Date: 4/2/2024
CUSTOMER: TBD
CUST. REF: BB-040724-C SHIP DATE: 04/09/2024
PRODUCT: Magnesium Sulfate - USP TRAILER NUMBER: 548499
SHELF LIFE: 3 Years BILL OF LADING #: BB-040724-C
LOT NUMBER: 771224 PO NUMBER #: BB-040724-C
CARRIER: Averitt MANUFACTURED: 04/07/2024
CUST. CONTACT: Zach Sutton EXPIRATION: 04/07/2027
zsutton@premiermagnesia.com

I certify that this material meets all the requirements of the Giles Chemical sales specifications and the United States Pharmacopela. 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 43	Limit of Chloride <221>	---	140 ppm	< 140 ppm
USP 43	Limit of Iron <241>	---	20 ppm	< 20 ppm
USP 43	Selenium <291>	---	30 ppm	< 30 ppm
USP 43	Heavy Metals (as Pb) <231>	---	10 ppm	< 10 ppm
USP 43	pH (5% Solution) <791>	5.0	9.2	6.18
USP 43	Loss on Ignition <733>	40.0	52.0	50.8%
USP 43	Assay, % MgSO ₄ (Dry Basis)	99.0	100.5	99.5%
Calculated from Assay & LOI	% MgSO ₄ (As is Basis)	47.52	60.3	49.0%
USP 43	ID, Magnesium <191>	---	---	Present
USP 43	ID, Sulfate <191>	---	---	Present

CONTACT:

Quality Assurance Laboratory
Michelle Shank - Quality Manager

ANALYST:

SIGNATURE ON FILE