



Giles Chemical, a division of Premier Magnesia , LLC.
102 Commerce Street Waynesville, NC 28786
Tech Certificate of Analysis

Release Date: 5/30/2013

CUSTOMER: _____

CUST. REF: _____ SHIP DATE: _____

PRODUCT: Magnesium Sulfate - Tech TRAILER NUMBER: _____

SHELF LIFE: 3 Years BILL OF LADING # : _____

LOT NUMBER: 1113 PO NUMBER # : _____

SHIPPER : _____ MANUFACTURED : _____

CUST. SERV. : _____ EXPIRATION: _____

I certify that this material meets all the requirements of the Giles Chemical sales specifications. Periodic testing has shown 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, Tech Grade

METHOD	TEST	LOWER	UPPER	Test Results
VISUAL	Appearance	~~	~~	Clear
L12-PR-100-004	Chloride as Cl (%)	~~	0.014	< 0.014%
L12-PR-100-006	Heavy Metals As Pb (%)	~~	0.001	< 0.001%
L12-PR-100-003	Ignition Loss (%)	40.00	52.00	50.85%
L12-PR-100-005	Iron (ppm)	~~	20.00	< 20.00 ppm
L12-PR-100-008	MgSO ₄ (Anhydrous wt. %)	99.00	100.50	99.08%
L12-PR-100-003	MgSO ₄ (As is basis, %)	48.30	52.00	48.35%
L12-PR-100-002	pH 5% Solution	5.00	9.20	6.61

ATTN:

ANALYST: STEPHEN BALLEW

Stephen Ballew