



Giles Chemical, a division of Premier Chemicals, LLC. USP Certificate of Analysis

10/29/2007

CUSTOMER: _____	
CUST. REF: _____	SHIP DATE: _____
PRODUCT: Magnesium Sulfate - USP	TRAILER NUMBER: _____
SHELF LIFE: 3 Years	BILL OF LADING # : _____
LOT NUMBER: 1007	PO NUMBER # : _____
SHIPPER : _____	MANUFACTURED : _____
CUST. SERV. : _____	EXPIRES : _____

I, certify that this material meets all the requirements of the Giles Chemical sales specification and the United States Pharmacopeia 30. Periodic testing has shown the samples to be consistently free of volatile organic impurities. Giles Chemical manufactured under the guidelines of Good Manufacturing Practices (GMP)

EPSOM SALT, Magnesium Sulfate - Heptahydrate, USP

METHOD	TEST	LOWER	UPPER	Test Results
VISUAL	Appearance	~~	~~	Clear
USP24	Arsenic (PPM)	~~	3.00	< 3 ppm
ESAP	Boron (PPM)	~~	15.00	< 15.0 ppm
USP30	Chloride as Cl (%)	~~	0.014	.001%
USP30	Heavy Metals As Pb (%)	~~	0.001	<.001%
USP30	Ignition Loss (%)	40.00	52.00	50.23%
USP30	Iron	~~	20.00	.29 ppm
USP30	MgSO ₄ (Anhydrous wt. %)	99.00	100.50	99.65%
USP30	MgSO ₄ (As is basis, %)	48.30	52.00	48.63%
USP30	pH 5% Solution	5.00	9.20	6.25
USP30	Selenium (%)	~~	0.003	< .003%
USP30	Mg ²⁺ ID			Present
USP30	SO ₄ ²⁻ ID			Present

ATTN:

ANALYST:

SIGNATURE ON FILE