

## Giles Chemical, a division of Premier Chemicals, LLC. Repacking Facility 102 Commerce Street Waynesville, NC 28786 USP Certificate of Analysis

	1/30/2009		
CUSTOMER:			
CUST. REF:		SHIP DATE:	
PRODUCT:	Magnesium Sulfate - USP	TRAILER NUMBER:	
SHELF LIFE:	3 Years	BILL OF LADING #:	
LOT NUMBER:	0209	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 31. Periodic testing has shown the samples to be consistently free of volatile organic impuriities. Giles Chemical manufactured under the guidlines of Good Manufacturing Practices (GMP)

## EPSOM SALT, Magnesium Sulfate - Heptahydrate, USP

METHOD	TEST	LOWER	UPPER	Test Results
VISUAL	Appearance	~~	~~	Clear
USP30	Arsenic ( PPM )	~~	3.00	< 3 ppm
USP30	Chloride as CI (%)	~~	0.014	<.001%
USP30	Heavy Metals As Pb (%)	~~	0.001	<.001%
USP30	ignition Loss (%)	40.00	52.00	51.38%
USP30	Iron	~~	20.00	0.01 ppm
USP30	MgSO <sub>4</sub> ( Anhydrous wt. % )	99.00	100.50	99.71%
USP30	MgSO <sub>4</sub> ( As is basis, % )	48.30	52.00	48.65%
USP30	pH 5% Solution	5.00	9.20	6.44
USP30	Selenium (%)	~~	0.003	< .003%
USP30	Mg <sup>2+</sup> ID			Present
USP30	SO <sub>4</sub> <sup>2</sup> ·ID			Present

ATTN: ANALYST:

SIGNATURE ON FILE