

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

	11/19/2009		
CUSTOMER:			
CUST. REF:		SHIP DATE:	_
PRODUCT:	Magnesium Sulfate - Tech	TRAILER NUMBER:	
SHELF LIFE:	3 Years	BILL OF LADING #:	
LOT NUMBER:	1409	PO NUMBER #:	
SHIPPER :		MANUFACTURED :	
CUST. SERV. :			

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, Tech Grade

METHOD	TEST	LOWER	UPPER	Test Results
VISUAL	Appearance	~~	~~	Clear
USP31	Chloride as CI (%)	~~	0.014	0.001%
USP31	ignition Loss (%)	40.00	52.00	51.13%
USP31	MgSO <sub>4</sub> ( Anhydrous wt. % )	99.00	100.50	99.50%
USP31	MgSO <sub>4</sub> ( As is basis, % )	48.30	52.00	48.56%
USP31	pH 5% Solution	5.00	9.20	6.57
USP31	Mg <sup>2+</sup> ID			Present
USP31	SO <sub>4</sub> <sup>2-</sup> ID			Present

SIGNATURE ON FILE