



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

3/9/2009

CUSTOMER: _____
CUST. REF: _____ SHIP DATE: _____
PRODUCT: Magnesium Sulfate - Tech TRAILER NUMBER: _____
SHELF LIFE: 3 Years BILL OF LADING # : _____
LOT NUMBER: 0409 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 impurities. Giles Chemical manufactured under the guidelines of Good Manufacturing Practices (GMP)

EPSOM SALT, Magnesium Sulfate - Heptahydrate, Tech Grade

| METHOD | TEST | LOWER | UPPER | Test Results |
|--------|---------------------------------------|-------|--------|--------------|
| VISUAL | Appearance | ~~ | ~~ | Clear |
| | | | | |
| USP30 | Chloride as Cl (%) | ~~ | 0.014 | <.001% |
| | | | | |
| USP30 | Ignition Loss (%) | 40.00 | 52.00 | 51.14% |
| | | | | |
| USP30 | MgSO ₄ (Anhydrous wt. %) | 99.00 | 100.50 | 99.68% |
| USP30 | MgSO ₄ (As is basis, %) | 48.30 | 52.00 | 48.64% |
| USP30 | pH 5% Solution | 5.00 | 9.20 | 6.29 |
| | | | | |
| USP30 | Mg ²⁺ ID | | | Present |
| USP30 | SO ₄ ²⁻ ID | | | Present |

ATTN:

ANALYST:

SIGNATURE ON FILE