

## Giles Chemical, a division of Premier Magnesia, LLC. 102 Commerce Street Waynesville, NC 28786 Phone: 828-452-4784 Fax: 828-452-4786 Tech Certificate of Analysis

| Release Date:  | 3/16/2018                     |                    |  |  |
|----------------|-------------------------------|--------------------|--|--|
| CUSTOMER:      |                               |                    |  |  |
| CUST. REF:     | Activated Charcoal & Hawaiian | SHIP DATE:         |  |  |
| PRODUCT:       |                               | TRAILER NUMBER:    |  |  |
| SHELF LIFE:    | 3 Years                       | BILL OF LADING #:_ |  |  |
| LOT NUMBER:    | 18074                         | PO NUMBER #:_      |  |  |
| CARRIER:       |                               | MANUFACTURED:      |  |  |
| CUST. CONTACT: |                               | EXPIRATION:        |  |  |

I certify that this material meets all the requirements of the Giles Chemical sales specifications. Periodic testing has shown the samples to be consistently free of volatile organic impurities. Giles Chemical magnesium sulfate is manufactured under the guidelines of Current Good Manufacturing Practices (cGMP).

## 73% EPSOM SALT, Magnesium Sulfate - Heptahydrate, Tech Grade, 25% Salt TFC (Contains ≤ 1% Fragrance and may contain trace amounts of proprietary additives)

| Epsom Salt                 |       |         | Salt, TFC (RI17220005)/RI17221002 |   |       |
|----------------------------|-------|---------|-----------------------------------|---|-------|
| TEST                       | LOWER | UPPER   | TEST<br>RESULT                    | PARAMETERS RESULTS                        |       |
| Appearance                 | ~~    | ~~      | Clear                             | Appearance Clear Crystal                  |       |
| Limit of Chloride          | ~~    | 140 ppm | Pass                              | Calcium&Magnesium (as<br>Calcium) 483 ppm |       |
| Limit of Iron              | ~~    | 20 ppm  | Pass                              | Calcium Sulfate 0.1479                    |       |
| Selenium                   | ~~    | 30 ppm  | Pass                              | Copper                                    | 0 ppm |
| Heavy Metals (as Pb)       | ~~    | 10 ppm  | Pass                              | Iron - Free 0.1 pp                        |       |
| pH (5% Solution)           | 5.0   | 9.2     | Pass                              | Arsenic < 1.0 ppm                         |       |
| Loss on Ignition           | 40.0  | 52.0    | Pass                              | Heavy Metals (as Pb) < 2.0 ppm            |       |
| Assay, % MgSO4 (Dry Basis) | 99.0  | 100.5   | Pass                              | Sodium Chloride 99.82                     |       |
| % MgSO4 (As is Basis)      | 47.52 | 60.3    | Pass                              | Bulk Density 79.0 lb/ft3                  |       |
| ID, Magnesium, Sulfate     | ~~    | ~~      | Present                           |   |       |

| CONTACT: | ANALYST: |
|----------|----------|
| CONTACT: | ANALYST  |

Quality Assurance Laboratory SIGNATURE ON FILE

Brent Lance - Chemist