

## SPECIFICATION

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|-------------------------------------------------------------------|
| <b>Product Name:</b> Magnesium Sulphate Monohydrate Feed Grade    |
| <b>Chemical Formula:</b> $\text{MgSO}_4 \cdot \text{H}_2\text{O}$ |
| <b>CAS Number:</b> 14168-73-1                                     |
| <b>Molecular Weight:</b> 138.38 g/mol                             |
| <b>Appearance:</b> White to off white crystalline powder          |
| <b>Odor:</b> Odorless                                             |

### Chemical Composition

| Parameter              | Unit | Typical Value | Specification (Min./Max.)           |
|------------------------|------|---------------|-------------------------------------|
| Identification         | -    | Complies      | Positive for magnesium and sulphate |
| Assay                  | %    | 99.5%         | NLT 99.0%                           |
| Magnesium              | %    | 17.4%         | Min. 17.0%                          |
| Sulphate               | %    | 69.8%         | Min. 69.0%                          |
| pH (5% Solution)       | -    | 6.3           | 5.0 – 8.0                           |
| Loss on Drying         | %    | 0.6%          | NMT 1.5%                            |
| Water Insoluble Matter | %    | 0.03%         | NMT 0.10%                           |
| Chloride               | %    | 0.02%         | MT 0.05%                            |
| Iron                   | PPM  | 30 PPM        | NMT 100 PPM                         |
| Arsenic                | PPM  | Complies      | NMT 5 PPM                           |
| Cadmium                | PPM  | Complies      | NMT 2 PPM                           |
| Mercury                | PPM  | Complies      | NMT 0.1 PPM                         |

### **Physical Properties**

- Solubility: Soluble in water. Insoluble in ethanol. Soluble in glycerol. Insoluble in acetone. Insoluble in ether.

### **Shelf Life & Storage**

- Shelf Life: 3 years from date of manufacture under recommended storage.  
- Storage Conditions: Store in a cool, dry, and well-ventilated place at 15–30°C. Protect from moisture, excessive humidity, direct sunlight, and contamination, as the product may absorb moisture and form lumps during storage. Keep the container tightly closed in the original, properly labeled packaging. Store away from strong acids, strong oxidizing agents, and incompatible materials. Proper storage helps maintain the product's purity, free-flowing properties, magnesium content, and stability for use in animal feed and mineral premixes.

### **Applications**

- Use: Widely used as a source of magnesium and sulfur in animal feed, mineral premixes, and livestock nutrition formulations. It helps support normal growth, bone development, muscle function, nerve transmission, enzyme activity, electrolyte balance, and overall animal health. It is commonly incorporated into compound feeds, mineral mixtures, feed concentrates, feed supplements, and total mixed rations (TMR) for poultry, cattle, dairy cows, sheep, goats, swine, horses, and aquaculture.  
- Dosage: Depends on the animal species, age, diet composition, magnesium requirement, and veterinary or nutritionist recommendations.

### **Packaging**

- Standard Packing: 50 Kgs woven pp bag with inner liner or as per customer requirement.  
- Labeling: Product name, batch number, net weight, manufacture date, expiry date, and manufacturer details.

\* Specifications are based on the manufacturer's provided specifications.