

Magnesium Sulphate

CAS 10034-99-8 · $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$ · Heptahydrate, Epsom

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1. Product identity

Product name	Magnesium Sulphate
Synonyms	magnesium sulphate heptahydrate, Epsom salt, MgSO_4 , mag sulphate
C.A.S. number	10034-99-8 (magnesium sulphate HEPTAHYDRATE, Epsom salt). Anhydrous magnesium sulphate is CAS 7487-88-9 and the monohydrate (kieserite) is CAS 14168-73-1. EC number 231-298-2 covers magnesium sulphate.
Molecular formula	$\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$
Molecular weight	246.47 (producer data; 246.48 on a second sheet). Anhydrous MgSO_4 is 120.4.
Grade supplied against	Heptahydrate, Epsom
Appearance	Colourless to white, odourless crystals, granules or crystalline powder with a bitter saline taste
Product group	Industrial Salts & Inorganics
HSN code	2833 21 00
Country of origin	As stated on the producer's documents for the lot supplied; confirmed at offer stage
Packing	50 kg bag · 1 MT jumbo
Storage	Store in tightly closed bags or containers in a cool, dry, well-ventilated place away from direct sunlight, heat and strong oxidisers. The heptahydrate is hygroscopic and cakes if it takes up moisture from a humid store, and it also loses water of crystallisation in a hot, dry store - a moderate, stable temperature and intact packaging preserve both the assay and the free-flowing condition. Keep bags off damp floors and do not stack where condensation can run onto them. Keep away from foodstuffs unless the grade and store are food-approved.

2. Analytical specification

S. No.	Test parameter	Specification	Method
1	Description	Colourless to white, odourless crystals, granules or crystalline powder with a bitter saline taste	Visual
2	Identification	Conforms to the substance supplied	Instrumental or chemical test, per method agreed
3	Assay / grade	Heptahydrate, Epsom	Titrimetry or instrumental, per method agreed
4	Physical state	Solid	Visual
5	Solubility in water	Freely soluble - 34 g/100 mL at 20 C (producer data); ILO ICSC 1197 gives 30 g/100 mL at 20 C for the anhydrous salt. Solubility rises sharply with temperature.	Per the test method agreed

S. No.	Test parameter	Specification	Method
6	pH	Essentially neutral. Producer data: pH 7 in a 35% w/w solution at 20 C; other producer sheets specify a range of 5.0-9.0 in a 5% solution. State the concentration alongside the figure.	Potentiometry on an aqueous suspension
7	Relative density	About 1.7 g/cm ³ (heptahydrate, producer data). Anhydrous MgSO ₄ is 2.66 g/cm ³ (ILO ICSC 1197) - do not quote the anhydrous figure for Epsom salt.	Pyknometry or gas displacement
8	Melting / freezing point	About 48 C (producer data 48.1 C) - the crystals dissolve in their own water of crystallisation rather than melting cleanly, and progressively dehydrate on further heating. The anhydrous salt decomposes at about 1124 C (ILO ICSC 1197).	Thermal analysis
9	Boiling point	Not applicable	Distillation range
10	Flash point	Not flammable	Not applicable — the substance is not combustible
11	Additional parameters	To the specification agreed before order	As agreed

3. Transport classification

Not regulated for transport · Class Not applicable - not a dangerous good under ADR, IMDG, IATA or DOT · Packing group Not applicable

Proper shipping name: Not applicable - not regulated for transport

What this document is. This is a product specification sheet. It states the grade this material is supplied against, its packing and its identity. **It is not a certificate of analysis, it carries no test results, and it certifies no batch.** Tested values for the consignment actually loaded appear on the batch certificate of analysis issued against that batch, which travels with the despatch documents. Identity and physical data are drawn from PubChem, the ECHA CLP inventory and ILO safety cards; the producer's documents for the grade quoted govern. Velora Chemicals Private Limited is a bulk supplier and trader, not a manufacturer.