

**PRODUCT SPECIFICATION**  
**MAGNESIUM SULPHATE HEPTAHYDRATE**

Epsom salt pure, technical

Formula MgSo4 . 7H2O  
Nature White crystals  
Content More than 48% MgSO4  
Less than 35 ppm Cl  
Less than 70 ppm F  
Typical MgSO4 49% OR 16% MgO (9.9% Mg),  
33% SO3 (26% SO2, 13% S)  
respectively

H2O 51%

Molecular weight 246,47 g/mol

Bulk density Standard: abt.0.95 g/cm<sup>3</sup>  
Fine cryst: abt 0.92g/cm<sup>3</sup>

Angle of repose Standard : abt. 33°  
Fine cryst : abt 32°

Melting point Incongruent melting above 46.1° C with formation of a  
Saturated solution of MgSO4 by weight at 20° C

Solubility Readily soluble in water, practically no residues left

Saturation point 25.8% MgSO4 by weight at 20° C

Appearance Crystalline

Standard: Predominantly between 1and 3 mm  
Fine cryst: Mainly <0.8 mm

Packing 25 kg or 50 kg woven polypropylene bags, with p.e. liner

Special characteristics Epsom salt esp, when very pure and without any additives, is sensitive against variations of  
temperature and humidity. At 20° C and a relative atmospheric moisture of < 45% it gradually releases water by  
simultaneous weathering (growing opacity of crystals); at >90% it absorbs water and deliquesces. Epsom salt transforms into  
MgSO4 . 6H2O below a certain water vapour pressure according to temperature. It is not stable above 46.1° C. If shipped  
in closed containers. Epsom salt, after having been exposed to high temperatures, re-crystallizes as soon as the temperature  
decreases. This re-crystallization very often results in caking.  
Epsom salt normally contains less than 0.6 ppm vanadium, which is of essential importance in the manufacture of detergents.

Legal Tolerances as per E.U. regulations.