



>>Entry Name: Magnesium sulfate heptahydrate

ENTRY UNDER REVIEW

Synonym(s): Sulfuric acid, magnesium salt, heptahydrate, 8Cl. Bitter salts. Magnesium sulfate, JAN, USAN

CAS Registry Number: 10034-99-8

$\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$

Molecular Formula: $\text{H}_{14}\text{MgO}_{11}\text{S}$

Molecular Weight: 246.475

Accurate Mass: 246.010727

Percentage Composition: H 5.72%; Mg 9.86%; O 71.40%; S 13.01%

Source/Synthesis: Cryst. from aq. MgSO_4

Use/Importance: Commercially available. Anticonvulsant, laxative

Physical Description: Colourless orthorhombic cryst. Dec. on heating $\rightarrow$ monohydrate and then anhyd. MgSO_4

Solubility: V. sol. H_2O (71 g per 100 cm^3 at 20°); spar. sol. EtOH

Other Data: Piezoelectric. $\Delta H_f -3389 \text{ kJ mol}^{-1}$; $\Delta G_f -2872 \text{ kJ mol}^{-1}$; $S^\circ 372 \text{ J K}^{-1} \text{ mol}^{-1}$

Aldrich: 23039-1

Fluka: 63138

Sigma: M7774

>>Variant: Mineral-form

Synonym(s): Epsomite. Epsom salts

CAS Registry Number: 14457-55-7

Molecular Formula: $\text{H}_{14}\text{MgO}_{11}\text{S}$

Molecular Weight: 246.475

Accurate Mass: 246.010727

Percentage Composition: H 5.72%; Mg 9.86%; O 71.40%; S 13.01%

Source/Synthesis: Widespread as an efflorescence on walls of mines and limestone caves

Physical Description: Colourless transparent cryst.

References:

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