

Certificate of Analysis

Product Name: MAGNESIUM SULFATE HEPTAHYDRATE
99.5-100.5 % calc. to the dried substance, meets analytical
specification of Ph. Eur., BP, USP, FCC

Product Number: 13142

Batch Number: BCCB0747

Brand: Sigma-Aldrich

CAS Number: 10034-99-8

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

Formula Weight: 246.47

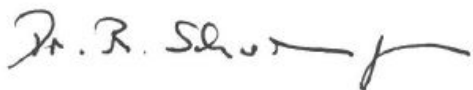
Quality Release Date: 26 FEB 2019

Recommended Retest Date: JUL 2022

TEST	SPECIFICATION	RESULT
APPEARANCE (COLOR)	WHITE TO OFF WHITE	OFF WHITE
APPEARANCE (FORM)	POWDER OR CRYSTALS	CRYSTALS
TITRATION (KT) EDTA 0.1M	99.5 - 100.5 % (CALCULATED TO THE DRIED SUBSTANCE)	99.9 %
SOLUBILITY (COLOR)	COMPLYING	COMPLYING
SOLUBILITY (TURBIDITY)	COMPLYING	COMPLYING
SOLUBILITY (METHOD)	ACC. TO PH.EUR.	ACC. TO PH.EUR.
PH-TEST	5.0 - 9.2	6.5
PH (METHOD)	5% IN WATER, 25C	5% IN WATER, 25C
LOSS ON DRYING	48.0 - 52.0 % (450C)	51.3 %
PHARMACOPOEA TESTS	CORRESPONDS TO REQUIREMENTS	CORRESPONDS TO PH.EUR.
Remarks on Pharmacopoea Test	IDENTITY COMPLYING FREE ACID (AS H_2SO_4) $\leq 0.01\%$ FREE ALKALI (AS MGO) $\leq 0.004\%$ ACIDITY OR ALKALINITY COMPLYING HEAVY METALS (AS PB) $\leq 10\text{MG/KG}$	IDENTITY COMPLYING FREE ACID (AS H_2SO_4) $\leq 0.01\%$ FREE ALKALI (AS MGO) $\leq 0.004\%$ ACIDITY OR ALKALINITY COMPLYING HEAVY METALS (AS PB) $\leq 10\text{MG/KG}$
IRON (ICP)	$\leq 20 \text{ MG/KG}$	$< 20 \text{ MG/KG}$
LEAD (ICP)	$\leq 4 \text{ MG/KG}$	$< 4 \text{ MG/KG}$
ARSENIC TRACES (MHS-AAS)	$\leq 2 \text{ MG/KG}$	$\leq 2 \text{ MG/KG}$

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SELENIUM TRACES (MHS-AAS)	≤ 30 MG/KG	< 30 MG/KG
CHLORIDE (CL)	≤ 100 MG/KG	100 MG/KG
RESIDUAL SOLVENTS (GLC-HS)	COMPLYING	COMPLIES



Dr. Reinhold Schwenninger
Quality Assurance
Buchs, Switzerland

Sigma-Aldrich warrants that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.