



## Certificate of Analysis

### Magnesium Sulfate Heptahydrate ACS

**Catalog Number:** MS1004  
**Lot Number:** 0326804  
**CAS Number:** 10034-99-8  
**Molecular Formula:**  $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$   
**Molecular Weight:** 246.47  
**Storage:** 15°C - 30°C  
**Date of Manufacture:** December 18, 2017  
**Retest Date:** December 17, 2022

Test	Specification	Result
Appearance	White to colorless efflorescent crystals	Conforms
Assay	98.0% - 102.0%	100.8%
Identification	To pass test	Conforms
Solubility (500mg/mL)	Clear and colorless	Conforms
pH (5%)	5.0 – 8.2	6.96
Insoluble Matter	$\leq 0.005\%$	0.003%
Ammonia	$\leq 0.002\%$	$< 0.002\%$
Chloride	$\leq 5\text{ppm}$	$< 5\text{ppm}$
Nitrate	$\leq 0.002\%$	$< 0.002\%$
Calcium	$\leq 0.02\%$	0.0185%
Manganese	$\leq 5\text{ppm}$	3ppm
Potassium	$\leq 0.005\%$	0.0018%
Sodium	$\leq 0.005\%$	0.0013%
Strontium	$\leq 0.005\%$	0.0005%
Heavy Metals (as Pb)	$\leq 5\text{ppm}$	$< 5\text{ppm}$
Iron (Fe)	$\leq 5\text{ppm}$	$< 5\text{ppm}$

Approved by:

Date: March 26, 2018

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