

**Identification**MnSO<sub>4</sub>·H<sub>2</sub>O

M = 169,02 g/mol

CAS [10034-96-5]

EC number: 232-089-9

Taric code: 2833 29 90

**Applications**

analytical chemistry, in porcelain industry, in pharma industry.

**Specifications**

assay (complex, on ignited sample).....	99,0 - 101,0 %	appearance of solution.....	passes test
assay (complexometric).....	98,0 - 102,0 %	chlorides (Cl).....	max. 100 ppm
Identification sulfates.....	passes test	iron (Fe).....	max. 10 ppm
Identification manganese.....	passes test	zinc (Zn).....	max. 50 ppm
Identification B (EP).....	passes test	non precipitable with (NH <sub>4</sub> ) <sub>2</sub> S.....	max. 0,5 %
		loss on ignition (450 °C).....	10,0 - 12,0 %

**Physical data**

- Appearance: powder, pink
- Spec. Density: 2,95 g/cm<sup>3</sup>
- Bulk density: ~ 1000 - 1200 kg/m<sup>3</sup>
- Solub. in water: (20 °C): 762 g/l
- Melting point: 117 °C (decomposes)
- pH(50 g/l H<sub>2</sub>O, 20°C) 3,0 - 3,5

**Safety - GHS**

Signal Word: Warning

**Hazard Statements:**

- H373: May cause damage to organs through prolonged or repeated exposure.  
H411: Toxic to aquatic life with long lasting effects.

**Precautionary Statements:**

- P260: Do not breathe dust / fume / gas / mist / vapours / spray.  
P273: Avoid release to the environment.  
P314: Get medical advice / attention if you feel unwell.  
P391: Collect spillage.  
P501a: Dispose of contents / container in accordance with local / regional / national / international regulations.

**Transport/storage**

- ADR: 9 M7 III • UN 3077 • ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(Manganese(II) sulfate monohydrate)
- IMDG: 9 III • UN 3077 • ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(Manganese(II) sulfate monohydrate)
- IATA/ICAO: 9 III • UN 3077 • ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(Manganese(II) sulfate monohydrate)
- PAX: 911
- CAO: 911
- 10°C - 30°C