

Method for producing high-purity magnesium oxide from bischofite involves precipitating magnesium hydroxide from bischofite solution by treating it with ammonia, separating resulting precipitate, rinsing it, and calcining it to obtain magnesium oxide. Prior to the precipitation of magnesium hydroxide from bischofite solution, sulfates are removed by precipitating them with barium chloride, followed by filtration of precipitate. The precipitation of magnesium hydroxide is carried out using ammonia solution at a temperature of 40-50 °C and a pH of 10.0-10.5. Resulting magnesium hydroxide precipitate is decanted, rinsed twice with distilled water, and filtered. Then, precipitate is washed on filter and dried at a temperature of 105-140 °C, followed by calcination at 500-600 °C. Resulting magnesium oxide powder is rinsed with water 3-4 times by decantation at a flow rate of 40 L of water per 1 kg of magnesium oxide. Then, magnesium oxide is dried and calcined again at 550-650 °C to yield production-grade magnesium oxide.