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(54) Title: PROCESS FOR PRODUCING AMMONIUM POLYTHIOMOLYBDATE OF THE FORMULA $(\text{NH}_4)_2\text{MO}_3\text{S}_{13}\cdot n\text{H}_2\text{O}$

(57) Abstract: There is disclosed a process for producing an ammonium polythiomolybdate of the formula $(\text{NH}_4)_2\text{MO}_3\text{S}_{13}\cdot n\text{H}_2\text{O}$ where n is 0, 1 or 2 comprising reacting an aqueous ammoniacal molybdate solution with hydrogen sulfide gas at superatmospheric pressure until the H_2S is no longer absorbed by the solution, said solution and said gas being in a closed system and the flow of said gas being regulated at an elevated pressure, to form a slurry consisting essentially of a solid essentially all of which is ammonium tetrathiomolybdate, and thereafter heat soaking the reaction product at elevated temperature in the presence of elemental sulfur to form the desired product.



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