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(54) Title: SYNTHESIS OF BIS(THIO-HYDRAZIDE AMIDE) SALTS

(57) Abstract: A method of preparing a bis(thio-hydrazide amide) disalt includes the steps of combining a neutral bis(thio-hydrazide amide), an organic solvent and a base to form a bis(thio-hydrazide amide) solution; and combining the solution and methyl *tert*-butyl ether, thereby precipitating a disalt of the bis(thio-hydrazide amide). In some embodiments, a method of preparing a bis(thio-hydrazide amide) disalt includes the steps of combining a neutral bis(thio-hydrazide amide) and an organic solvent selected from methanol, ethanol, acetone, and methyl ethyl ketone to make a mixture; adding at least two equivalents of a base selected from sodium hydroxide, potassium hydroxide, sodium methoxide, potassium methoxide, sodium ethoxide and potassium ethoxide to the mixture, thereby forming a solution; and combining the solution and methyl *tert*-butyl ether to precipitate the disalt of the bis(thio-hydrazide amide). The disclosed methods do not require lyophilization and the solvents used in the process can be more readily removed to low levels consistent with pharmaceutically acceptable preparation.



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