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(54) Title: PROCESS FOR PREPARING N-ACYL AMINO ACID SALTS

(57) Abstract: Improved processes for making an N-acyl amino acid salt from a fatty alkyl ester or a polyol ester are disclosed. Each process uses a polyol selected from glycerin or propylene glycol in an amount effective to keep the reaction mixture fluid until conversion to the N-acyl amino acid salt reaches the desired level of completion. In one process, a fatty alkyl ester reacts with an amino acid salt in the presence of glycerin or propylene glycol to produce an N-acyl amino acid salt. In another process, a polyol ester reacts with the amino acid salt in the presence of added glycerin or propylene glycol to produce the N-acyl amino acid salt. We surprisingly found that an effective amount of glycerin or propylene glycol minimizes or eliminates reaction mixture solidification or foaming, reduces color, and minimizes the level of di- and tripeptide by-products. In a related process, water is added when conversion of the amino acid salt to the N-acyl amino acid salt is in the range of 50 to 90 mole %. Water addition improves processability, advances conversion without producing excessive soap, and helps to ensure that the N-acyl amino acid salt will have low color and a small proportion of by-products.

