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(12) United States Patent
Wagaman**(10) Patent No.: US 6,258,983 B1**
(45) Date of Patent: Jul. 10, 2001**(54) METHOD OF PREPARING SOLID
HYDROXYLAMINE NITRATE****(75) Inventor: Kerry L. Wagaman, Bryantown, MD
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represented by the Secretary of the
Navy, Washington, DC (US)****(*) Notice:** Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.**(21) Appl. No.: 09/686,894****(22) Filed: Oct. 12, 2000****(51) Int. Cl.⁷ C07C 293/08****(52) U.S. Cl. 564/300; 564/301****(58) Field of Search 564/300, 301****(56) References Cited****U.S. PATENT DOCUMENTS**

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5,041,661 8/1991 Wagaman et al. 564/227*Primary Examiner*—Johann Richter*Assistant Examiner*—Sikarl A. Witherspoon*(74) Attorney, Agent, or Firm*—Mark Homer**(57) ABSTRACT**

The present invention comprises a process of producing HAN by slowly adding nitric acid to an alcoholic solution of hydroxylamine. This forms a precipitate of solid HAN. However, if more nitric acid is added, the precipitate dissolves before the stoichiometric amount of acid has been added. Therefore, sufficient nitric acid is added to form a maximum amount of solid HAN precipitate. The solid HAN is then isolated by conventional means such as filtration or centrifugation, possibly preceded by chilling this solution. The excess alcoholic solution of unreacted hydroxylamine may be recycled and used as starting material in the process.

10 Claims, No Drawings