

## A Refining Method of 2,6-Diamino-3,5-dinitropyridine-1-oxide

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**Abstract:** A new refining process of 2,6-diamino-3,5-dinitropyridine-1-oxide (ANPyO) was investigated including acylation, recrystallization and deprotection procedures. The influence of different processing conditions on product purity, particle size distribution, impact sensitivity, friction sensitivity and micro-structure were studied and compared with that of refining method with CF<sub>3</sub>COOH. Results show that the optimal conditions of new refining method are as following: DMF as solvent for the recrystallization of the intermediate (2,6-diacetamino-3,5-dinitropyridine-1-oxide) and ammonia as the amination agent and amination temperature 50 °C. Under the conditions, ANPyO was prepared with yield of 90.5%, and the purity of 99.5%. Its properties were characterized with pH of 6.3, melting point of 355 °C, vacuum stability of 0.01 mL · g<sup>-1</sup>, impact sensitivity of 257 cm, friction sensitivity of 2%.

**Key words:** organic chemistry; 2,6-diamino-3,5-dinitropyridine-1-oxide; refining; property; acidity; particle size distribution; melt point; vacuum stability; impact sensitivity; friction sensitivity

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## 更 正

因本人疏忽,发表在贵刊 2012 年 20 卷第 6 期《一种应对偏二甲肼泄露到水体中的生物降解技术》一文中,用到“泄露”一词,此多指气体,本文涉及的是液体,因此用“泄漏”更为准确、严谨,现将题目及文中“泄露”全部更正为“泄漏”,相应的英文翻译中“leaking”改为“spilling”。特此声明。

范春华