

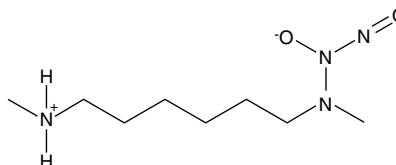
Product Information



MAHMA NONOate

Item No. 82130

CAS Registry No.: 146724-86-9
Formal Name: (Z)-1-[N-Methyl-N-[6-(N-methylammoniohexyl)amino]]diazen-1-ium-1,2-diolate
Synonym: Methylamine hexamethylene methylamine NONOate
MF: $C_8H_{20}N_4O_2$
FW: 204.3
Purity: ≥98%
Stability: ≥1 year at -80°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max} : 250 nm



Laboratory Procedures

For long term storage, keep MAHMA NONOate sealed under nitrogen at -80°C. It should be stable for at least one year. The crystals are sensitive to moisture and become discolored on exposure to air. Keep the vial sealed until use unless your laboratory is equipped with a glove box with an inert atmosphere for the handling of air sensitive compounds.

MAHMA NONOate dissociates to the free amine and nitric oxide in a pH-dependent manner following first order kinetics. Alkaline solutions of NONOates (in 0.01 M NaOH) are very stable and can be stored at 0°C for 24 hours. MAHMA NONOate is highly soluble in water and relatively concentrated solutions can be prepared for further dilution. To initiate the release of nitric oxide, add a portion of the stock alkaline solution of MAHMA NONOate to excess buffer of pH 7.0-7.4. The half-life of MAHMA NONOate is 2.7 minutes at 22°C in 0.1 M phosphate buffer (pH 7.4).¹ The decomposition of NONOates is nearly instantaneous at pH 5.

The intact MAHMA NONOate has a characteristic UV absorbance at 250 nm ($\epsilon = 7,250 \text{ M}^{-1} \text{ cm}^{-1}$), permitting quantitation in aqueous solutions.¹ The concentration of the basic stock solution of MAHMA NONOate can be measured by UV if there is any uncertainty about the condition under which it was prepared or stored.

Reference

1. Hrabie, J.A., Klose, J.R., Wink, D.A., *et al.* New nitric oxide-releasing zwitterions derived from polyamines. *J. Org. Chem.* **58**, 1472-1476 (1993).

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent *via* email to your institution.

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