

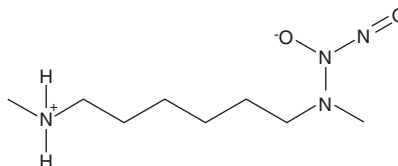
# PRODUCT INFORMATION



## 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  
**UV/Vis.:**  $\lambda_{max}$ : 250 nm  
**Supplied as:** A crystalline solid  
**Storage:** -80°C  
**Stability:**  $\geq 1$  year



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

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). The decomposition of NONOates is nearly instantaneous at pH 5.

### Description

MAHMA NONOate is a NO donor. It spontaneously dissociates in a pH-dependent, first-order process with a half-life of 1 minute and 3 minutes at 37°C and 22-25°C, respectively, (pH 7.4) to liberate 2 moles of NO per mole of parent compound.<sup>1,2</sup>

### References

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).
2. Keefer, L.K., Nims, R.W., Davies, K.M., *et al.* 'NONOates' (1-substituted diazen-1-ium-1,2-diolates) as nitric oxide donors: Convenient nitric oxide dosage forms. *Methods Enzymol.* **268**, 281-293 (1996).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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