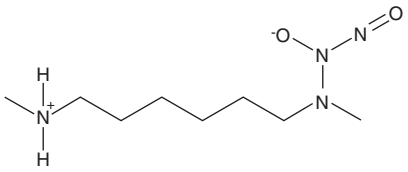
PRODUCT INFORMATION

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.: λ_{max}: 250 nm
Supplied as: A crystalline solid
Storage: -80°C
Stability: ≥2 years



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.[1,2]

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).

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