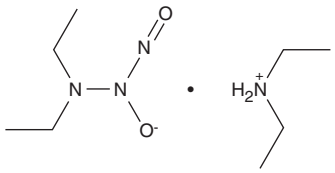
PRODUCT INFORMATION

DEA NONOate

Item No. 82100

CAS Registry No.:	372965-00-9
Formal Name:	Diethylammonium (Z)-1-(N,N-diethylamino)diazen-1-ium-1,2-diolate
Synonyms:	Diethylamine NONOate, DEA/NO
MF:	$C_4H_{11}N_3O_2 \bullet C_4H_{11}N$
FW:	206.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 250 nm
Supplied as:	A crystalline solid
Storage:	-80°C
Stability:	≥4 years



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

Laboratory Procedures

DEA NONOate is supplied as a crystalline solid. A stock solution may be made by dissolving the DEA NONOate in the solvent of choice, which should be purged with an inert gas. DEA NONOate is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of DEA NONOate in ethanol is approximately 25 mg/ml and approximately 2 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of DEA NONOate can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of DEA NONOate in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

DEA NONOate is a NO donor. It spontaneously dissociates in a pH-dependent, first-order process with a half-life of 2 minutes and 16 minutes at 37°C and 22-25°C, pH 7.4, respectively, to liberate 1.5 moles of NO per mole of parent compound.[1,2]

References

1. Maragos, C.M., Morley, D., Wink, D.A., *et al.* Complexes of ·NO with nucleophiles as agents for the controlled biological release of nitric oxide. Vasorelaxant effects. *J. Med. Chem.* **34(11)**, 3242-3247 (1991).
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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