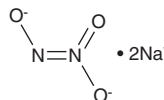


PRODUCT INFORMATION



Angeli's Salt Item No. 82230

CAS Registry No.: 13826-64-7
Formal Name: disodium diazen-1-ium-1,2,2-triolate
Synonym: Sodium α -oxyhyponitrite
MF: $\text{Na}_2(\text{ONNO}_2)$
FW: 122.0
Purity: $\geq 99\%$
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥ 4 years



Special Conditions: Crystals are air and moisture sensitive; handle in an inert atmosphere.

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

Laboratory Procedures

Angeli's Salt is a releaser of nitric oxide. Angeli's Salt is highly soluble in water. Alkaline solutions of Angeli's Salt (in 0.01 M NaOH) are stable and can be stored at 0°C for 24 hours. Angeli's Salt dissociates in a pH-dependent manner following first-order kinetics. The half-life of Angeli's Salt in 0.1 M phosphate buffer, pH 7.4, is 2.3 minutes at 37°C . The decomposition of Angeli's Salt is nearly instantaneous at pH 5. To initiate the release of nitric oxide, add the alkaline solution of Angeli's Salt to an excess of pH 7.0-7.4 buffer.

The intact Angeli's Salt has a characteristic UV absorbance at 237 nm ($\epsilon = 6100$),¹ permitting quantitation in aqueous solutions. The concentration of the basic stock solution of Angeli's Salt can be measured by UV if there is any uncertainty about the conditions under which it was prepared or stored.

Description

Angeli's Salt is regarded as a classical nitroxyl (NO^-) donor, but under certain conditions evolution of NO is also observed. It spontaneously dissociates in a pH-dependent, first-order process with a half-life of 2.3 minutes at 37°C (pH 7.4) to liberate 0.54 moles of NO per mole of parent compound.^{1,2}

References

1. Maragos, C.M., Morley, D., Wink, D.A., *et al.* Complexes of $\bullet\text{NO}$ with nucleophiles as agents for the controlled biological release of nitric oxide. Vasorelaxant effects. *J. Med. Chem.* 34, 3242-3247 (1991).
2. Fukuto, J.M., Hobbs, A.J., and Ignarro, L.J. Conversion of the nitroxyl (HNO) to nitric oxide in biological systems: The role of physiological oxidants and relevance to the biological activity of HNO. *Biochem. Biophys. Res. Commun.* 196, 707-713 (1993).

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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