

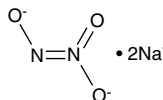
# Product Information



## Angeli's Salt

Item No. 82230

<b>CAS Registry No:</b>	13826-64-7
<b>Formal Name:</b>	disodium diazen-1-ium-1,2,2-triolate
<b>Synonyms:</b>	Sodium $\alpha$ -oxyhyponitrite
<b>MF:</b>	Na <sub>2</sub> (ONNO <sub>2</sub> )
<b>FW:</b>	122.0
<b>Purity:</b>	≥99%
<b>Stability:</b>	≥6 months at -20°C
<b>Supplied as:</b>	A crystalline solid
<b>Melting Point:</b>	284°C



### Laboratory Procedures

Angeli's Salt is a releaser of nitric oxide. For long term storage, we suggest that Angeli's Salt be stored as supplied at -20°C. It will be stable for at least six months. The crystals are air and moisture sensitive, and should be handled in an inert atmosphere.

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 ( $\epsilon = 6100$ ),<sup>1</sup> 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.

Angeli's Salt is regarded as a classical nitroxyl (NO<sup>-</sup>) 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.<sup>1,2</sup>

### 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, 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).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/82230](http://www.caymanchem.com/catalog/82230)

**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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