

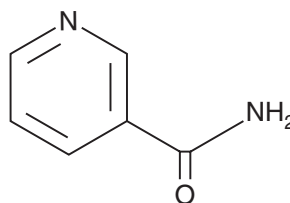
# PRODUCT INFORMATION



## Nicotinamide

Item No. 11127

**CAS Registry No.:** 98-92-0  
**Formal Name:** 3-pyridinecarboxamide  
**Synonyms:** Niacinamide, Nicotinic Acid Amide, NSC 13128, NSC 27452  
**MF:** C<sub>6</sub>H<sub>6</sub>N<sub>2</sub>O  
**FW:** 122.1  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 214, 262 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years  
**Item Origin:** Synthetic



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

### Laboratory Procedures

Nicotinamide is supplied as a crystalline solid. A stock solution may be made by dissolving the nicotinamide in the solvent of choice, which should be purged with an inert gas. Nicotinamide is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of nicotinamide in ethanol is approximately 2.5 mg/ml and approximately 15 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 nicotinamide can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of nicotinamide in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Nicotinamide is an amide form of vitamin B<sub>3</sub> (niacin). It is a precursor of nicotinamide adenosine dinucleotide (NAD<sup>+</sup>), which is involved in energy metabolism.<sup>1</sup> Nicotinamide is obtained through biosynthesis in the body or from a dietary source. It has cytoprotectant effects that are relevant to immune system dysfunction, diabetes, cancer, and aging.<sup>1</sup>

### Reference

1. Maiese, K., Chong, Z.Z., Hou, J., *et al.* The vitamin nicotinamide: Translating nutrition into clinical care. *Molecules* **14**(9), 3446-3485 (2009).

#### 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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