

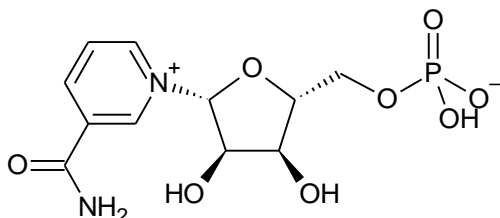


## Test Report

**Sample name:** Pure NMN  
**Client:** Hansen Sp. z o.o., ul. Zaborowska 8, 05-083 Zaborów, Poland  
**Purpose of test:** Verification of delivered product  
**Sample description:** NMN, Beta-Nicotinamide Mononucleotide  
**Brand name:** Hansen Supplements

### Description of substance:

**Sample size:** 10g  
**Property:** White powder  
**Formula:** C<sub>11</sub> H<sub>15</sub> N<sub>2</sub> O<sub>8</sub> P  
**CAS number:** 1094-61-7  
**Structure:**



**Batch No.:** XJY01231007  
**Date received:** 20.01.2024  
**Test items:** Identification of substance, purity, heavy metals  
**Summary:** The sample has been identified and found to be of high quality  
**Measured purity:** **Above 98%** according to <sup>1</sup>H NMR analysis. Appropriate spectra are shown in (Fig. 1 and 2).  
**Authentication method:** Standard and literature NMR shifts  
([https://www.chemicalbook.com/ChemicalProductProperty\\_EN\\_CB6281591.htm](https://www.chemicalbook.com/ChemicalProductProperty_EN_CB6281591.htm)) and ACDLABS database.



**All values are within the relevant standards**

**Test results:**

**Purity:**

Heavy metals: n.d.

Pb (Lead): n.d.

Hg (Mercury): n.d.

Cd (Cadmium): n.d.

As (Arsen): n.d.

**Comments:**

n.d. – not detected, below limit of detection on AAS spectr AA240FS + AA240Z + GTA120

**Date:** 27.01.2024

**Tested by:** prof. dr hab. Antoni Szumny

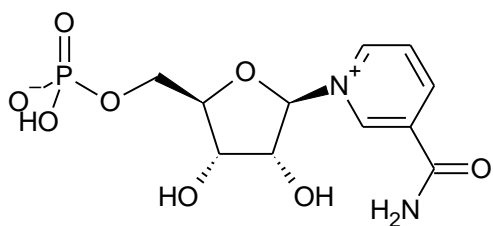


Figure 1. Chemical structure of NMN

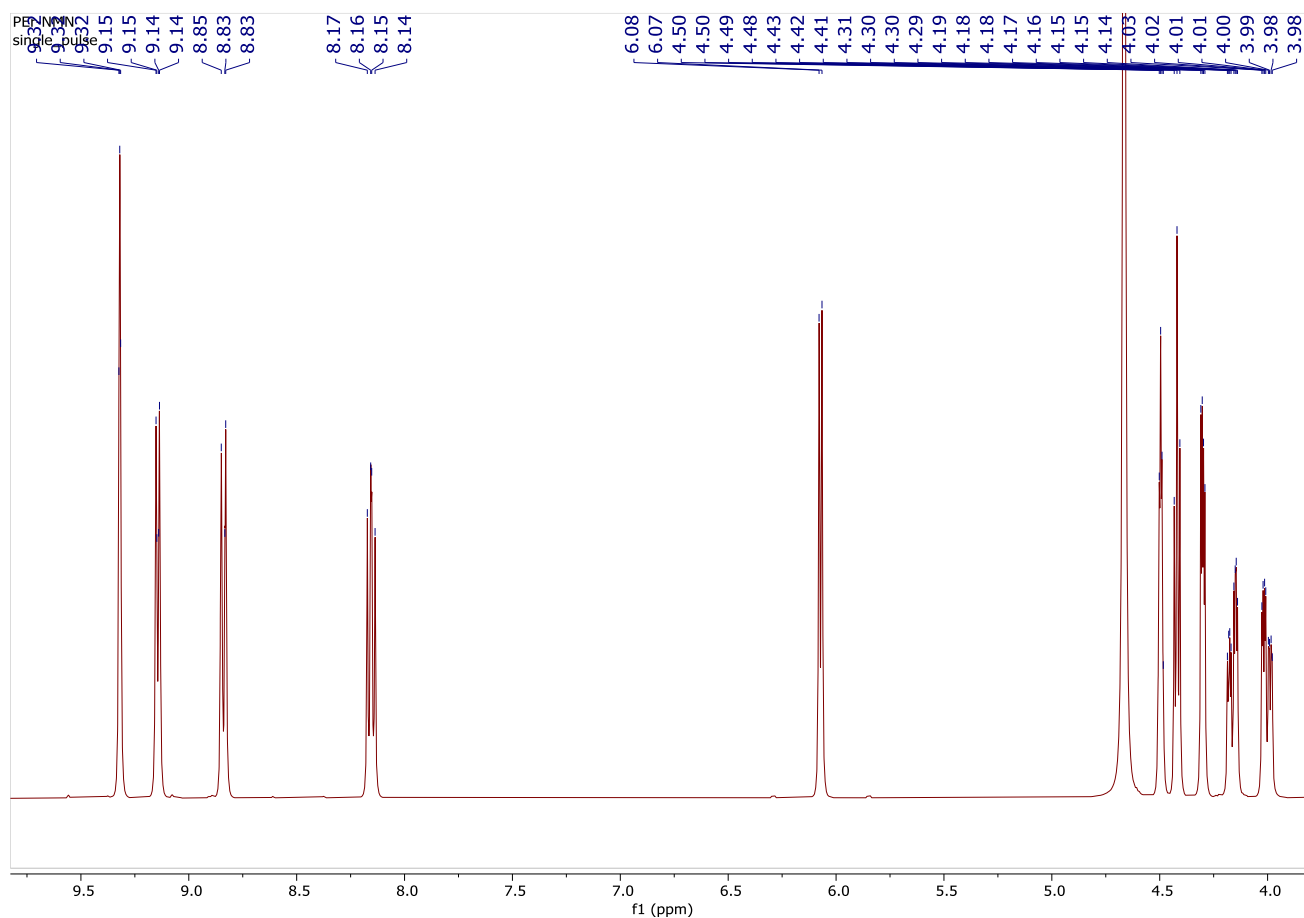


Figure 1.  $^1\text{H}$  NMR (Nicotinamide mononucleotide), batch No. XJY01231007 of NMR (in  $\text{D}_2\text{O}$ ) full spectrum;

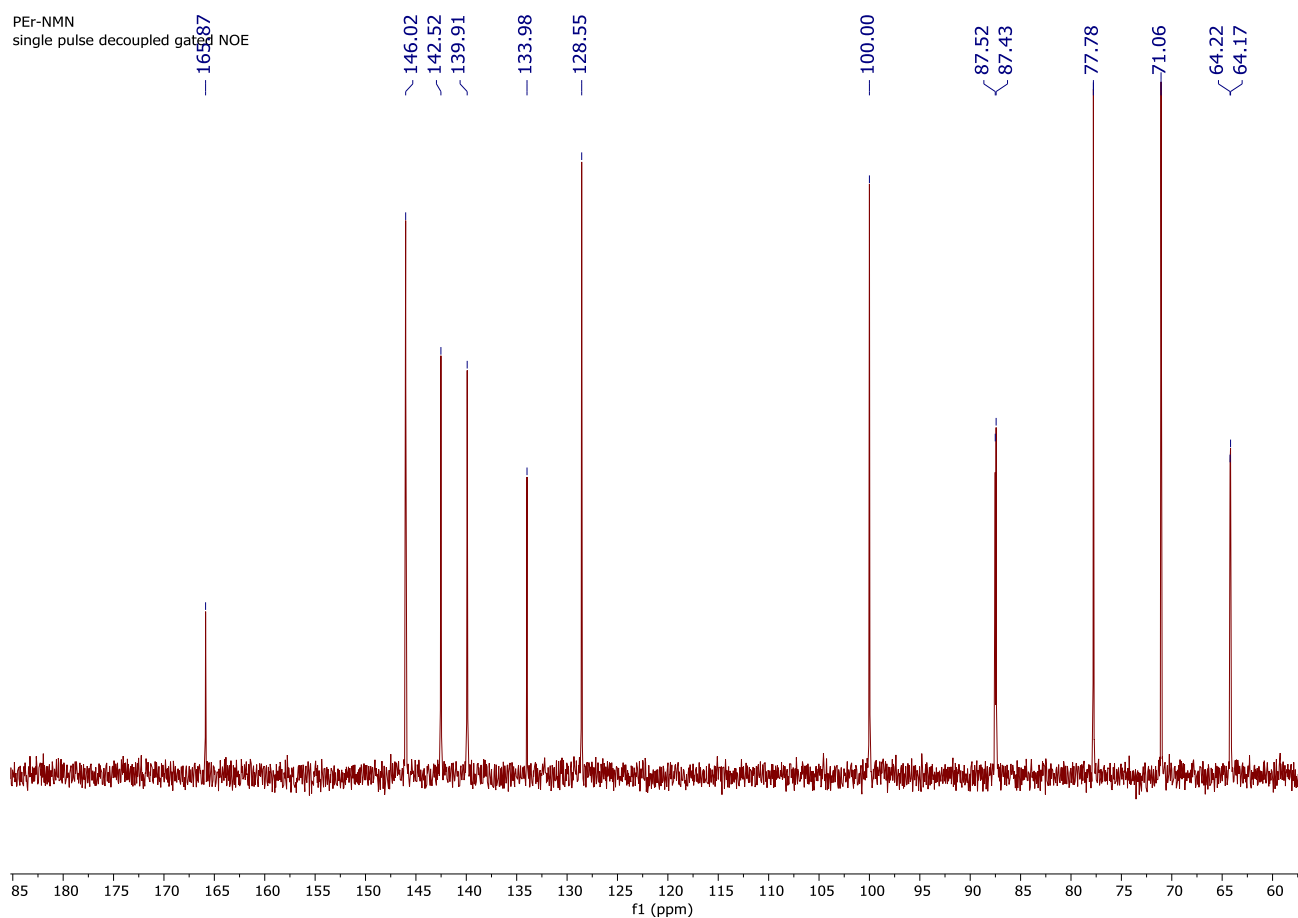


Figure 2  $^{13}\text{C}$  NMN (Nicotinamide mononucleotide), batch No. XJY01231007 of NMR (in  $\text{D}_2\text{O}$ ) selected region spectrum;

27.01.2024,

prof. dr hab. Antoni Szumny