

## CERTIFICATE of ANALYSIS

**PRODUCT:** **D-NMMA**  
[N<sup>G</sup>-Monomethyl-D-Arginine . monoacetate, H-D-Arg(Me)-OH . AcOH]  
C<sub>7</sub>H<sub>16</sub>N<sub>4</sub>O<sub>2</sub> . CH<sub>3</sub>COOH, M.W. 188.2 . 60.1,  
CAS# [137694-75-8]

**PRODUCT NUMBER:** D-1027

**LOT NUMBER:** A6030/C

**APPEARANCE:** White powder

**SOLUBILITY:** 50 mg in 1 mL MeOH or 100 mg in 1 mL water completely soluble.

**TLC SYSTEM 1:** 99.5% (CHCl<sub>3</sub>:MeOH:ammonium hydroxide)  
28%:H<sub>2</sub>O (20:22:5:5); Detection: NH

**ELEMENTAL ANALYSIS :** SPECIFICATION: C = 43.54%, H = 8.12%, N = 22.57%  
RESULTS: C = 43.39%, H = 8.13%, N = 22.63%

**OPTICAL ROTATION:**  $[\alpha]_D^{19} = -11.4^\circ \pm 2.0^\circ$  (c = 2.76 in water)

**MELTING POINT:** 186-188°C

**STORAGE & HANDLING:** Keep cool and dry at +4°C.

CAUTION: For laboratory research & scientific manufacturing use only. Not for human or drug use. The pharmacological and toxicological properties of this product have not been fully investigated. Use caution when handling. Do not use this compound if you are not fully trained or are unaware of the hazards involved.

VERIFIED: KT