

Version Molecular weight Molecular Formula CAS No Linear Formula Flash Point (°C) 00 202.34 C10 H26 N4 71-44-3 H2N(CH2)3NH(CH2)4NH(CH2)3NH2 110

Certificate of Analysis

Products are processed under ISO 9001:2015 quality management systems and samples are tested for conformance to the noted specifications. Certain data may have been supplied by third parties. We disclaim the implied warranties of merchantability and fitness for a particular purpose, and the accuracy of third party data or information associated with the product. Products are for research and development use only. Products are not for direct administration to humans or animals. It is the responsibility of the final formulator or end user to determine suitability, and to qualify and/or validate each product for its intended use.

| Catalog Number | 13275 | Quality Test / Release Date | 06/07/2023 |
|-----------------------|--------------------------|-----------------------------|------------|
| Lot Number | A0453378 | Suggested retest date | 06/07/2026 |
| Description | Spermine,97% | | |
| Country of Origin | UNITED STATES OF AMERICA | | |
| Declaration of Origin | synthetic | | |
| | | | |

BSE/TSE Chemical

| Result name | Specifications | Test Value |
|----------------------|--|---------------------------|
| Appearance (Color) | White to light yellow | White |
| Appearance (Form) | Crystalline powder or low melting mass | low melting mass |
| Infrared spectrum | Conforms | Conforms |
| Melting point | 26°C to 30°C | 28.8°C |
| Titration with HClO4 | >=96.0 % (On dry substance) | 98.8 % (On dry substance) |
| Water | =<3 % (K.F.) | 0.3 % (K.F.) |

C. Wygaerts, QA Manager

Issued: 08-24-2023

Acros Organics BV ENA23, zone1, nr 1350, Janssen Pharmaceuticalaan 3a, B-2440 Geel, Belgium Tel +32 14/57.52.11 - Fax+32 14/59.34.34 Internet: https://www.thermofisher.com 1 Reagent Lane, Fair Lawn, NJ 07410, USA Fax 201-796-1329