



Version	00
Molecular weight	202.34
Quality Test / Release Date	01/10/2018
Molecular Formula	C10 H26 N4
CAS No	71-44-3
Linear Formula	H2N(CH2)3NH(CH2)4NH(CH2)3NH2
Flash Point (°C)	110

Certificate of Analysis

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Acros Organics expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Unless otherwise stated, these products are not intended for dialysis, parenteral, or injectable use without further processing. The following are the actual analytical results obtained:

Catalog Number	13275	Quality Test / Release Date 01/10/2018
Lot Number	A0392142	
Description	Spermine, 97%	
Country of Origin	UNITED STATES OF AMERICA	
Declaration of Origin	synthetic	

BSE/TSE comment	
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Chemical Comment	
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Result name	Units	Specifications	Test Value
Appearance (Color)		White to light yellow	light yellow
Appearance (Form)		Crystalline powder or low melting mass	Crystalline powder
Infrared spectrum		Authentic	Authentic
Melting point		26°C to 30°C	28.8°C
Titration with HClO4		>=96.0 % (On dry substance)	98.7 % (On dry substance)
Water		=<3 % (K.F.)	0.1 % (K.F.)



A handwritten signature in black ink, appearing to read "L. Van den Broek".

L. Van den Broek, QA Manager

Issued: 01-11-2018

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