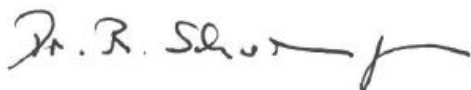


Certificate of Analysis

Product Name: DL-LACTONITRILE
 $\geq 97.0\% \text{ T}$
Product Number: 69830
Batch Number: BCBM8302V
Brand: Aldrich
CAS Number: 78-97-7
Formula: $\text{CH}_3\text{CH}(\text{OH})\text{CN}$
Formula Weight: 71.08
Quality Release Date: 28 MAY 2014
Date retested: 21 JAN 2021

TEST	SPECIFICATION	RESULT
STABILIZER	~ 1 % PHOSPHORIC ACID	~ 1 % PHOSPHORIC ACID
APPEARANCE (COLOR)	COLORLESS TO DARK RED	LIGHT YELLOW
APPEARANCE (FORM)	LIQUID	LIQUID
TITRATION	97.0 - 100.0 %	97.7 %
TITRATION (METHOD)	-	N-DETERMINATION ACCORDING TO KJELDAHL
 SPECIFIC ROTATION (20/D)	 0.00 \pm 0.10 DEGREES	 0.0 DEGREES
CONCENTRATION	NEAT	NEAT
REFRACTIVE INDEX N20/D	1.402 - 1.406	1.404
WATER	~ 1 %	0.15 %
PROTON NMR SPECTRUM	CONFORMS TO STRUCTURE	CONFORMS



Dr. Reinhold Schwenninger
Quality Assurance
Buchs, Switzerland

Sigma-Aldrich warrants that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.