

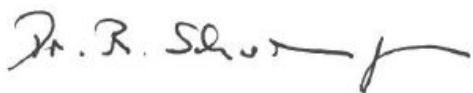
Certificate of Analysis

Product Name: TRIFLUOROACETIC ACID
eluent additive for LC-MS
Product Number: 80457
Batch Number: BCBV4830
Brand: Sigma-Aldrich
CAS Number: 76-05-1
Formula: CF_3COOH
Formula Weight: 114.02
Quality Release Date: 25 AUG 2017
Date retested: 29 APR 2019

TEST	SPECIFICATION	RESULT
APPEARANCE (COLOR)	COLORLESS	COLORLESS
APPEARANCE (FORM)	LIQUID	LIQUID
PURITY (GC AREA %)	≥ 99.0 %	99.7 %
REMARKS ON LC-MS	LC-MS SUITABILITY PASSES TEST	PASSED
WATER	≤ 0.05 %	< 0.05 %
TEST BY UV SPECTROSCOPY	ABSORPTION 320NM: ≤ 0.025 ABSORPTION 300NM: ≤ 0.03 ABSORPTION 290NM: ≤ 0.04 ABSORPTION 280NM: ≤ 0.05 ABSORPTION 270NM: ≤ 0.1 ABSORPTION 260NM: ≤ 0.9	ABSORPTION 320NM: 0.0025 ABSORPTION 300NM: 0.005 ABSORPTION 290NM: 0.008 ABSORPTION 280NM: 0.012 ABSORPTION 270NM: 0.06 ABSORPTION 260NM: 0.88
METAL TRACE ANALYSIS (ICP)	CORRESPONDS TO REQUIREMENTS	PASSED
SILVER (ICP)	≤ 0.02 MG/KG	< 0.02 MG/KG
ALUMINIUM (ICP)	≤ 0.05 MG/KG	< 0.05 MG/KG
BARIUM (ICP)	≤ 0.05 MG/KG	< 0.05 MG/KG
BISMUTH (ICP)	≤ 0.1 MG/KG	< 0.1 MG/KG
CALCIUM (ICP)	≤ 0.2 MG/KG	< 0.2 MG/KG
CADMIUM (ICP)	≤ 0.05 MG/KG	< 0.05 MG/KG
COBALT (ICP)	≤ 0.02 MG/KG	< 0.02 MG/KG
CHROMIUM (ICP)	≤ 0.05 MG/KG	< 0.05 MG/KG
COPPER (ICP)	≤ 0.02 MG/KG	< 0.02 MG/KG
IRON (ICP)	≤ 0.3 MG/KG	< 0.3 MG/KG
POTASSIUM (ICP)	≤ 0.1 MG/KG	< 0.1 MG/KG
LITHIUM (ICP)	≤ 0.02 MG/KG	< 0.02 MG/KG
MAGNESIUM (ICP)	≤ 0.5 MG/KG	< 0.5 MG/KG
MANGANESE (ICP)	≤ 0.05 MG/KG	< 0.05 MG/KG
MOLYBDENUM (ICP)	≤ 0.02 MG/KG	< 0.02 MG/KG

Certificate of Analysis

SODIUM (ICP)	≤ 0.5 MG/KG	< 0.5 MG/KG
NICKEL (ICP)	≤ 0.05 MG/KG	< 0.05 MG/KG
LEAD (ICP)	≤ 0.02 MG/KG	< 0.02 MG/KG
STRONTIUM (ICP)	≤ 0.02 MG/KG	< 0.02 MG/KG
THALLIUM (ICP)	≤ 0.05 MG/KG	< 0.05 MG/KG
ZINC (ICP)	≤ 0.05 MG/KG	< 0.05 MG/KG
TOTAL SULFUR AS SO₄ (ICP)	≤ 50 MG/KG	50 MG/KG
CHLORIDE (CL)	≤ 50 MG/KG	< 50 MG/KG
SULFITE (SO₃)	≤ 10 MG/KG	< 10 MG/KG
ION CHROMATOGRAPHY (NH₄⁺)	≤ 10 MG/KG	< 10 MG/KG



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.