

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

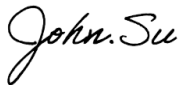
Date of Testing: 2023-03-03 16:09:12  
 Date of Next Testing: 2025-03-02 16:09:12  
 Product Name: **Trans-1,2-Dichloroethylene**  
 CAS Number: 156-60-5  
 Specifications & Purity: Electronic grade,99.999995% metals basis  
 Lot #: B23241100  
 SKU #: **T278880**  
**Analysis: 154616**  
 Storage Temperature: Argon charged

Parameter	Limit Values	Result
Purity(Based On Trace Metals Analysis)	99.999995-100 (%)	100.00 %
Water by Karl Fischer	0-12.85 (ppm)	2.10 ppm
Acidity	0-0.38 (ppm)	0.10 ppm
p/ml(Particles) $\geq$ 0.1 $\mu$ m	$\leq$ 0.97	0.10000
p/ml(Particles) $\geq$ 0.2 $\mu$ m	$\leq$ 0.3	0.10000
p/ml(Particles) $\geq$ 0.5 $\mu$ m	$\leq$ 0.3	0.00000
Color test (APHA)	$\leq$ 10 (APHA)	5.00 APHA
Assay(GC)	99.97-100 (%)	99.99000 %
Aluminum(Al)	0-0.03 (ppb)	0.01 ppb
Silver (Ag)	0-0.03 (ppb)	0.01 ppb
(As)Arsenic	0-0.06 (ppb)	0.01 ppb
Aurum(Au)	0-0.06 (ppb)	0.01 ppb
Barium(Ba)	0-0.03 (ppb)	0.01 ppb
Bismuth(Bi)	0-0.03 (ppb)	0.01 ppb
Calcium(Ca)	0-0.03 (ppb)	0.01 ppb
Cadmium(Cd)	0-0.09 (ppb)	0.01 ppb
Cobalt(Co)	0-0.03 (ppb)	0.01 ppb
Copper(Cu)	0-0.06 (ppb)	0.01 ppb
Chromium(Cr)	0-0.03 (ppb)	0.01 ppb
Iron(Fe)	0-0.15 (ppb)	0.01 ppb
Gallium(Ga)	0-0.03 (ppb)	0.01 ppb
Mercury(Hg)	0-0.09 (ppb)	0.02 ppb
Potassium(K)	0-0.03 (ppb)	0.01 ppb
Lithium(Li)	0-0.03 (ppb)	0.01 ppb
Magnesium(Mg)	0-0.03 (ppb)	0.01 ppb
Manganese(Mn)	0-0.03 (ppb)	0.01 ppb

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Parameter	Limit Values	Result
Silicon(Si)	0-0.3 (ppb)	0.02 ppb
Boron(B)	0-0.3 (ppb)	0.05 ppb
Sodium(Na)	0-0.03 (ppb)	0.01 ppb
Nickel(Ni)	0-0.03 (ppb)	0.01 ppb
Lead(Pb)	0-0.03 (ppb)	0.01 ppb
Stannum(Sn)	0-0.03 (ppb)	0.01 ppb
Strontium(Sr)	0-0.03 (ppb)	0.01 ppb
Niobium(Nb)	0-0.1 (ppb)	0.01 ppb
Titanium(Ti)	0-0.03 (ppb)	0.01 ppb
phosphorus(P)	0-0.3 (ppb)	0.05000 ppb
Zinc(Zn)	0-0.06 (ppb)	0.01 ppb
Antimony(Sb)	0-0.03 (ppb)	0.01 ppb
Total Metallic Impuritie	0-0.05 (ppm)	0.00 ppm
Appearance(T278880)	Colorless Transparent Liquid	Colorless transparent liquid

A handwritten signature in black ink that reads "John Su".

John Su  
QA & QC Manager