

**PRODUCT NUMBER: S010601**

**LOT NUMBER: 6115081**

**RELEASE DATE: June, 2016**

**EXPIRY DATE: June, 2019**

## CERTIFICATE OF ANALYSIS

Tests	Maximum Specification	Actual Value	Units	CH <sub>3</sub> COOH (≥99%): Properties
ASSAY (CH <sub>3</sub> COOH, w/w):	≥99%	99.5%	% by w/w	Molar Mass: 60.05g/mol
Colour:	10	< 10	APHA	Density: 1.05 g/ml
				Molarity: 18 moles/litre
				Normality: 18 moles/litre

Analyte	Maximum Specification	Actual Value (in ppb)	Analyte	Maximum Specification	Actual Value (in ppb)
Aluminum (Al)	1 ppb	< 0.5	Molybdenum (Mo)	0.5 ppb	< 0.2
Antimony (Sb)	0.5 ppb	< 0.1	Neodymium (Nd)	0.1 ppb	< 0.1
Arsenic (As)	0.5 ppb	< 0.1	Nickel (Ni)	0.5 ppb	< 0.1
Barium (Ba)	0.5 ppb	< 0.5	Platinum (Pt)	0.5 ppb	< 0.1
Beryllium (Be)	0.1 ppb	< 0.1	Potassium (K)	1 ppb	< 0.5
Bismuth (Bi)	0.1 ppb	< 0.1	Praseodymium (Pr)	0.1 ppb	< 0.1
Cadmium (Cd)	0.5 ppb	< 0.1	Rhenium (Re)	0.1 ppb	< 0.1
Calcium (Ca)	1 ppb	< 0.5	Rhodium (Rh)	0.5 ppb	< 0.1
Cerium (Ce)	0.1 ppb	< 0.1	Rubidium (Rb)	0.1 ppb	< 0.1
Cesium (Cs)	0.1 ppb	< 0.1	Ruthenium (Ru)	0.5 ppb	< 0.1
Chromium (Cr)	1 ppb	< 0.1	Samarium (Sm)	0.1 ppb	< 0.1
Cobalt (Co)	0.1 ppb	< 0.1	Scandium (Sc)	0.1 ppb	< 0.1
Copper (Cu)	0.5 ppb	< 0.2	Selenium (Se)	1 ppb	< 0.5
Dysprosium (Dy)	0.1 ppb	< 0.1	Silver (Ag)	1 ppb	< 0.1
Erbium (Er)	0.1 ppb	< 0.1	Sodium (Na)	1 ppb	< 1
Europium (Eu)	0.1 ppb	< 0.1	Strontium (Sr)	0.5 ppb	< 0.1
Gadolinium (Gd)	0.1 ppb	< 0.1	Tellurium (Te)	0.5 ppb	< 0.1
Gallium (Ga)	0.1 ppb	< 0.1	Terbium (Tb)	0.1 ppb	< 0.1
Germanium (Ge)	0.5 ppb	< 0.1	Thallium (Tl)	0.1 ppb	< 0.1
Hafnium (Hf)	0.1 ppb	< 0.1	Thorium (Th)	0.1 ppb	< 0.1
Holmium (Ho)	0.1 ppb	< 0.1	Thulium (Tm)	0.1 ppb	< 0.1
Indium (In)	0.1 ppb	< 0.1	Tin (Sn)	0.5 ppb	< 0.1
Iron (Fe)	1 ppb	< 0.5	Titanium (Ti)	0.5 ppb	< 0.1
Lanthanum (La)	0.1 ppb	< 0.1	Tungsten (W)	0.5 ppb	< 0.1
Lead (Pb)	0.1 ppb	< 0.1	Uranium (U)	0.1 ppb	< 0.1
Lithium (Li)	0.1 ppb	< 0.1	Vanadium (V)	0.5 ppb	< 0.1
Lutetium (Lu)	0.1 ppb	< 0.1	Ytterbium (Yb)	0.1 ppb	< 0.1
Magnesium (Mg)	0.5 ppb	< 0.2	Yttrium (Y)	0.1 ppb	< 0.1
Manganese (Mn)	0.5 ppb	< 0.1	Zinc (Zn)	1 ppb	< 0.5
Mercury (Hg)	1 ppb	< 1	Zirconium (Zr)	0.1 ppb	< 0.1

Analyte	Maximum Specification	Actual Value (in ppm)	Analyte	Maximum Specification	Actual Value (in ppm)
Chloride (Cl <sup>-</sup> )	1 ppm	< 1	Substances Reducing Dichromate (K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub> )	To Pass Test	Passes Test
Phosphate (PO <sub>4</sub> <sup>3-</sup> )	1 ppm	< 1	Substances Reducing Permanganate (KMnO <sub>4</sub> )	To Pass Test	Passes Test
Sulphate (SO <sub>4</sub> <sup>2-</sup> )	0.5 ppm	< 0.5			



Greg Henson  
QA & RA Manager