

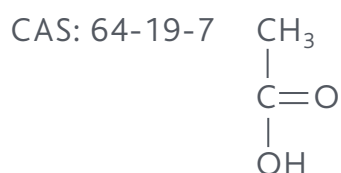
**EASTMAN**

**Eastman EastaPure™**  
electronic chemicals

Acetic acid

# Eastman EastaPure™ electronic chemicals

## Acetic acid



### Chemicals for the electronics industry

The extremely low metals content in Eastman's high-purity acetic acid makes it an excellent choice for use in etching solutions for semiconductor chips and other sensitive electronics applications. It is also used in other industrial applications requiring an exceptionally pure grade of acetic acid. A Certificate of Analysis (COA) will be provided with each shipment. A list of trace metals measured for each shipment is shown in Table 1, special properties are shown in Table 2, and typical properties are shown in Table 3.

**Table 1: Upper limit for metals in EastaPure™ acetic acid**

Component	Upper Limit (parts/billion)
Aluminum (Al)	50
Arsenic and Antimony <sup>a</sup>	5
Barium (Ba)	10
Boron	10
Cadmium (Cd)	10
Calcium (Ca)	25
Chromium (Cr)	20
Cobalt (Co)	10
Copper (Cu)	20
Gallium (Ga)	10
Germanium (Ge)	10
Iron (Fe)	100

Component	Upper Limit (parts/billion)
Lead (Pb)	20
Lithium (Li)	10
Magnesium (Mg)	10
Manganese (Mn)	10
Nickel (Ni)	20
Potassium (K)	25
Silver (Ag)	10
Sodium (Na)	30
Strontium (Sr)	10
Tin	10
Titanium (Ti)	10
Zinc (Zn)	30

<sup>a</sup>Normally certified by storage tank analysis.

**Table 2: Special properties<sup>a</sup>**

Color (APHA), ppm max.	5
Assay, by freezing point, wt % min.	99.70
Dilution clarity, test D-3	Pass
Residue after evaporation, ppm max.	5
Acetic anhydride, % max.	0.01
Heavy metals, ppm max.	0.5
Reducing substance	
Dichromate, mL	0.60–1.00
Permanganate, Test D-11	Pass
Titrateable base, meq/g max.	<0.0004
Chlorides, <sup>a</sup> ppb max.	400
Sulfates, <sup>a</sup> ppb max.	400
Phosphates, <sup>a</sup> ppb max.	1,000
Water, wt % max.	0.15

<sup>a</sup>Except for chlorides, sulfates, phosphates, and water content, special properties are determined by tests in Regent Chemicals, American Chemicals Society, Washington, D.C.

**Table 3: Typical properties<sup>a</sup>**

Molecular weight	60.06
Empirical formula	C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>
Physical form	Liquid
Freezing point, °C (°F)	16.7 (62.1)
Specific gravity @ 25°C	1.051
Wt/Vol @ 20°C (68°F)	
Kg/L	1.023
Lb/gal (U.S.)	8.748
Hansen solubility parameters	
Nonpolar	7.1
Polar	3.9
Hydrogen bonding	6.6
Total	10.4
Flash point	
Tag closed cup, °C (°F)	42 (109)
Fire Point, °C (°F)	64 (147)
Autoignition temperature, °C (°F)	516 (961)
Explosive Limits, %	
Lower	6.6
Upper	19.3

<sup>a</sup>Properties reported here are typical of average lots. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.



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Material Safety Data Sheets providing safety precautions, that should be observed when handling and storing Eastman products, are available online or by request. You should obtain and review the available material safety information before handling any of these products. If any materials mentioned are not Eastman products, appropriate industrial hygiene and other safety precautions recommended by their manufacturers should be observed.

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