

# ALUMINUM Test Paper

## for the rapid determination of aluminum

### Color reaction:

When used in accordance with the method of application, the test paper shows bright red spots against a yellow background.

### Presentation:

Plastic boxes of 100 strips, each 20 × 70 mm.

### Method of application:

A drop of the weakly mineral acid solution, buffered with sodium acetate, is applied to the test paper. The point of application of the drop is exposed for about 10 seconds, on both sides, to ammonia vapor by holding it over conc.  $\text{NH}_4\text{OH}$  and then washed in acetic acid solution of 5 – 10 %. In the presence of large quantities of the test paper will show a bright red spot, whereas very small quantities of  $\text{Al}^{3+}$  produce only a bright red ring on the yellow paper. A brownish-yellow ring around the point of application of the drop of solution should not be interpreted as being positive.

Limit of sensitivity: 10 mg/L  $\text{Al}^{3+}$ .

### Interferences:

Fe, Zn, Cu, Mn and Zr interfere with the determination of  $\text{Al}^{3+}$ .

The interference can be eliminated by reacting the test solution with an excess of 10 % solution of potassium hexacyanoferrate(II). After settling or filtration of the precipitate, apply a drop of the clear solution to the test paper and proceed as above.

Fluoride ions – depending upon their concentrations – prevent the formation of the red color. They have to be removed by evaporation with concentrated sulfuric acid. The same procedure has to be followed when polyphosphate ions are present.

### Note:

The ALUMINUM test paper can also be used for the determination of zirconium by following the instructions applicable to the zirconium test paper.

### CTL SCIENTIFIC SUPPLY CORP.

1016-3 Grand Boulevard, Deer Park, NY 11729

Tel: 631-242-4249

Web: [www.ctlscientific.com](http://www.ctlscientific.com)

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Manufacturer: **Macherey-Nagel GmbH & CO. KG**