

Sulfite Test Paper

en

for the rapid determination of sulfite and sulfur dioxide

Color reaction:

Sulfite and free SO_2 result in a pink to brick-red discoloration of the white test paper.

Presentation:

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

Method of application:

a) Determination of sulfite

Apply a drop of the **neutral or weakly alkaline** test solution to the test paper. According to the sulfite concentration, a pink to brick-red spot or a red ring appears.

Limit of sensitivity: 10 mg/L Na_2SO_3

b) Determination of SO_2

Sulfur dioxide is liberated by the addition of sulfuric acid (10%) to sulfites. Moisten a strip of test paper with distilled water and hold just above the surface of the solution (do not dip into the solution). The presence of SO_2 is indicated by a pink to brick red color.

Interferences:

In **acidic solution** the paper does not react with sulfites. Strongly acid or weakly acid solutions have to be neutralized with crystalline sodium acetate prior to testing.

Thiosulfates interfere only in the determination of SO_2 (application b), because they are decomposed by mineral acids, forming SO_2 .

Sulfides interfere in application a, since neutral sulfide solutions also result in a red coloration of the paper. Sulfides interfere in application b because, in acidic solutions, the liberated hydrogen sulfide reacts with sulfur dioxide to form sulfur and H_2O . In both of these, the interference can be eliminated by the addition of HgCl_2 solution to the test solution.

Notes:

The sulfite test paper is far superior to the potassium iodate starch paper, since it does not react with other reducing agents. Furthermore, the sulfite test paper, unlike the potassium iodate starch paper, reacts also with alkali sulfites in neutral and alkaline solutions.