COEI-1-POTBIS Potassium hydrogen sulfite

Potassium bisulfite

Potassium acid sulfite

$KHSO_3$ = 120.2

SIN No. 228

1. Objective, origin and scope of application

Potassium hydrogen sulfite is used in oenology because of the proportion of sulfur dioxide it contains.

2. Labelling

The label should indicate the weight per liter or per kilogram of sulfur dioxide and the storage and safety conditions.

There are regulatory limits restricting the sulfur dioxide content in wines.

3. Centesimal Composition

SO_2	53.30
K	32.53

4. Properties

Potassium hydrogen sulfite is found in the form of a colorless or slightly yellow solution obtained by passing a current sulfur dioxide through an aqueous potassium hydroxide solution.

Hydrogen sulfite solutions are unstable and should not contain less than 70 g/l or more than 200 g/l SO_2.

5. Identifying characteristics

Potassium hydrogen sulfite solutions yield reactions of potassium and sulfur dioxide

and are slightly acidic (pH of approximately 5).

6. Tests

The tests are identical to those detailed in the monograph on potassium anhydrous sulfite, as are the limiting content levels for lead, mercury, iron, arsenic, selenium and chlorides.

Quantitative Analysis

Place 50 ml of cold water in a 200 ml conical flask, then add 5 ml of potassium hydrogen sulfite solution. Dilute so that the solution has a concentration of approximately 1 pp 100 SO_2 and titrate with 0.1M iodine in the presence of starch. Let *n* be the volume of iodine used.

The sulfur dioxide (SO_2) content of the solution, expressed in pp 100 (m/v), is 0.64 x *n* (concentration cannot be less than 70 g/L).

7. Storage

Potassium hydrogen sulfite solutions containing more than 15 pp 100 (m/v) of sulfur dioxide must not be stored at low temperatures, in order to avoid the risk of crystallization.