Peracetic Acid (PAA) Rapid Test Strip

#T005/50T

Peracetic acid (also known as peroxyacetic acid, or PAA) is an organic compound with the formula CH3CO3H. This peroxy acid is a colorless liquid with a characteristic acrid odor reminiscent of acetic acid. It can be highly corrosive. PAA can be used in dairy and cheese processing plants, on food processing equipment, and in pasteurizers in breweries, wineries, and beverage plants. It is also applied for the disinfection of medical supplies, to prevent biofilm formation in pulp industries, and as a water purifier and disinfectant.

1. Application

This test strip can be used in the semi-quantitative detection of PAA in milk powder, water and other dairy milk. (please consult the technique for more details if you want to test other samples)

2. Components

- Tube containing 50 test strips
- Manual 1 piece

3. Preparation

Whole milk powder: Weight 1 gram (accurate to 0.01g) of milk powder, then add 8 ml of distilled water to dissolve it.

Raw milk: No treatment is needed.

Note: Milk samples should be fully liquid without any agglomeration and deposition. Samples containing more than 40 mg/l PAA must be diluted with distilled water.

4. Procedure

1) Read the instructions before experiment. Bring the test kit and samples to room temperature.
2) Immerse the reaction zone of the test strip in the pretreated sample (15 – 30 °C) for 2 s. Seal the cap of the bottles and store the unneeded kit.
3) Shake off excess liquid from the strip and after 30 s determine with which color field on the label the color of the reaction zone coincides most exactly.
4) Read off the corresponding result in mg/l PAA.

5. Influence of foreign substances

This was checked individually in solutions with 30 and 0 mg/l PAA. The determination is not yet interfered with up to the concentrations of foreign substances given in the table.

Concentrations of foreign substances in mg/l			
Ascorbate	10	**Hypochlorite**	10
Fe^{2+}	10	**Chloramine T**	5
Fe^{3+}	10	**Formaldehyde**	1000
NO_3^-	1000	**H_2O_2**	1000
SO_3^{2-}	100		

6. Storage

The test strips are stable up to the date stated on the pack when stored at 2 – 8 °C. Lot number and expired date are printed on the package.

7. Notice and Precautions for a successful experiment.

Please perform the assay following the instruction, do not touch the membrane of the strip.
The color of reaction zone may continue to change after the specified reaction time has elapsed. This must not be considered in the measurement.
If the color of the reaction zone is equal to or more intense than the darkest color on the scale, repeat the measurement using fresh, diluted samples until a value of less than 40 mg/l.
Reclose the tube containing the test strips immediately after use.

Annexed table 1: Measuring range and number of determinations

Items	Measuring range / color scale graduation (mg/l)
PAA	0 – 5 – 10 – 20 – 30 – 40

Annexed figure 1: Color scale and procedure