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Determination of Arsenic in Food Additives

1 Scope

This standard specifies methods for determination of arsenic in food additives.

This standard applies to determination of arsenic in food additives.

Method I Silver diethyldithiocarbamate colorimetric method

2 Principle

The high-valence arsenic in sample solution is reduced to trivalent arsenic in the presence of potassium iodide and stannous chloride. Trivalent arsenic reacts with the nascent hydrogen generated by zinc granule and acid to generate hydrogen arsenide gas. After the interference of hydrogen sulfide is removed by lead acetate cotton, the hydrogen arsenide gas is absorbed by and reacts with silver diethyldithiocarbamate solution dissolved in chloroform–triethanolamine or pyridine, to generate purple red complex. Compared with the standard series, the quantitative analysis is performed.
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