

# Limit of Aluminum

Uses fluorescence spectroscopy after extraction with a chelating agent.

## Step-by-Step Instructions

1. Dissolve 20.0 g of Sodium Chloride in 100 mL of water and add pH 6.0 acetate buffer.
2. Extract the solution three times with a 0.5% solution of 8-hydroxyquinoline in chloroform.
3. Combine the extracts and measure the fluorescence (Excitation: 392 nm, Emission: 518 nm).

## Acceptance Criteria

- Fluorescence does not exceed that of the standard (NMT 0.2 ppm).

## Tips and Cautions

Category	Guidance
Chloroform Safety	The Aluminum test uses chloroform, which is toxic and a suspected carcinogen. Use a fume hood and wear appropriate PPE.
Contamination	Use high-purity reagents and acid-washed glassware to avoid trace metal contamination.

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