



NQAC

Nestlé Quality Assurance Center
Dublin

Technical Datasheet

Analysis Name: Sulfites in Foods by Monier-Williams

Method Number: AOAC 990.28

Scope of Application: This general method measures free sulfites and a reproducible amount of bound sulfites in food and food ingredients. False positive results are obtained from garlic powder, soy protein, onions, leeks, kale, brussel sprouts, horseradish, cabbage, and ginger.

Description: Sulfites are converted to sulfur dioxide by heating with a refluxing solution of hydrochloric acid. A nitrogen stream carries the SO_2 gas through a water-cooled condenser into hydrogen peroxide, which oxidizes the SO_2 to sulfuric acid. The H_2SO_4 is titrated with sodium hydroxide. The sample sulfite content is proportional to the generated H_2SO_4 .

Sample Weight Required: 150 g

Method Reference: AOAC, 990.28, 17th Edition 2000: "Sulfites in Foods, Optimized Monier-Williams Method".

Food Chemical Codex (FCC) IV, "Sulfur Dioxide Determination", pp 841 – 842.

Analytical Platform: Titration

Special Information: False positives are obtained from garlic, soy, onions, leeks, kale, brussel sprouts, horseradish, cabbage and ginger.

Analyte Reported	Alias	Unit of Measure	Limit of Quantification	Reproducibility
Sulfur Dioxide		mg/kg	10.0	20%