



Analysis of Saccharin Sodium

Introduction

The use of commercial sweeteners in the manufacture of food and drinks is strictly regulated by agencies such as the FDA. This application note demonstrates a robust method for the analysis of saccharin (sodium salt), described in a Food Additive Test Method posted in an annotation of the Food Hygiene Law.



JASCO HPLC System at www.jascoinc.com

Keywords

Food additive, Sweetener, Saccharin sodium, C18 column, UV detection HPLC

Experimental

Equipment

Pump:	PU-2080
Degasser:	DG-2080-53
Column Oven:	CO-2060
Autosampler:	AS-2057
Detector:	UV-2075

Conditions

Column:	CrestPak C18S (4.6 mmI.D. x 150 mmL, 5 μ m)
Eluent:	0.05 mol/L Phosphate buffer (pH 6.9)/Methanol (90/10)
Flowrate:	1.0mL/min
Column Temp.:	40 $^{\circ}$ C
Wavelength:	230 nm
Injection Volume:	10 μ L
Standard Sample:	Saccharin (sodium salt) 0.5 μ g/mL in water

Structural formula of saccharin (sodium salt) is shown in Fig. 1.

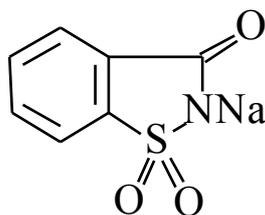


Fig. 1. Structural Formula of Saccharin (Sodium salt)

Results

A chromatogram of a saccharin standard is shown in Fig. 2.

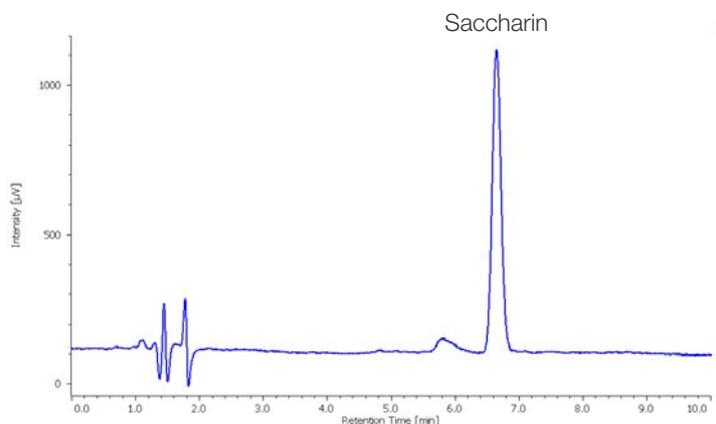


Fig. 2. Chromatogram of a Standard Sample of Saccharin