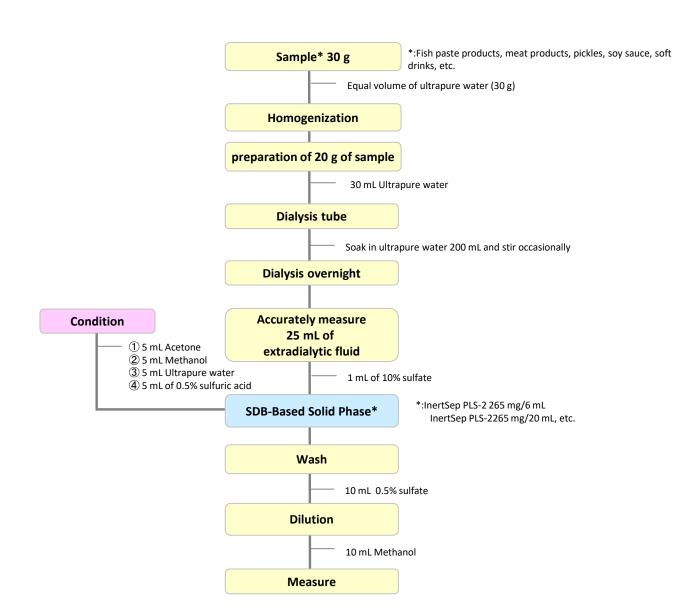
Simultaneous Analysis of Saccharin and Preservatives in Foods

The standard Hygiene Test Method employs both dialysis extraction for saccharin in foods, and steam distillation for sorbic acid and benzoic acid. Therefore, the extraction process and assay conditions are different for each target component, making it more complex to perform the analytical procedure. In this application note, we introduce an analytical method combining dialysis extraction, which provides easier extraction of a variety of sample types, with solid-phase extraction, which offers a much simpler purification procedure.

1. Flow diagram of solid phase pretreatment

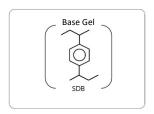


NOTE) This is a method developed by GL Sciences based on literature information. Reference: Journal of the Japanese Society of Food Chemistry, Vol. 5(2), 153-158 (1998).



2. Products for solid-phase extraction

[InertSep PLS-2]



Mean particle

size

Surface Area : 600 m²/g Pore volume : 1.1 mL/g Pore size : 70 Å

PH range of use

: 1-14

: 60 µm

InertSep PLS 2 is a cartridge filled with styrene divinylbenzene polymer gel (SDB). It has a retention capacity greater than C18 and excellent stability in a wide pH range.

Syringe barrel type cartridge

Produ	uct name	Column size	Qty.	Cat.No.
	Recommended for this	265 mg/6 mL	50 bottles	5010-27430
	application	265 mg/20 mL	20 bottles	5010-27431
InertSep PLS-2		270 mg/6 mL	50 bottles	5010-25020
		500 mg/6 mL	30 bottles	5010-25025
		500 mg/20 mL	20 bottles	5010-25036

[Accessories for making connections between solid-phase extraction cartridges]







Cartridge connection adapter

Cartridge adapter used to connect syringe barrel and LSC cartridges.

Product name		Specification	Qty.	Cat.No.
	Recommended for this application	For 1,3,6 mL reservoirs	12	5010-60000
Cartridge Connection Adaptor (PP)		For 12,20 mL reservoirs	12	5010-60001

Empty reservoir

Used when the sample volume is greater than the cartridge capacity.

Product	name	Specification	Qty.	Cat.No.
		12 mL	20 bottles	5010-60103
Empty reservoir (PP)		20 mL	20 bottles	5010-60104
No frits	Recommended for this application	60 mL	10 bottles	5010-60105
		150 mL	10 bottles	5010-60106

Adapted reservoir

This reservoir can be directly connected to syringe barrel type solid phase cartridges, supplied in volumes of 1, 3 and 6 mL.

Product name	Specification	Qty.	Cat.No.
25 mL reservoir with 1,3,6 mL adapter	PP product	12	5010-60015

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