

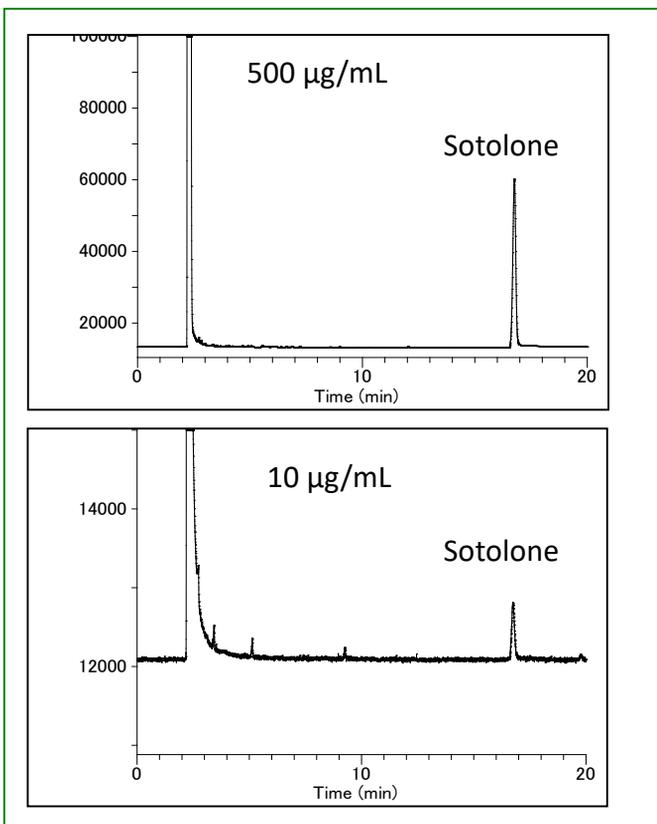
# Analysis of the Flavor Component Sotolone - Using InertCap Pure-WAX

It has been demonstrated that the odor and taste of foods are very closely related, with strong sweetening of odors and other interactions.

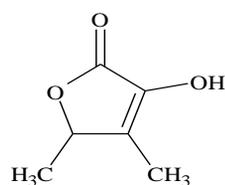
Sotolon, a compound responsible for flavor, is described as having an odor of caramel and curry, and is also known to be one of the odor components characteristic of old sake.

In this application, GC analysis was made for Sotolon reference samples using InertCap Pure WAX a new WAX-based inert column,. Here we present the successful results.

## Example: Measurement of standard



### Structural Formula



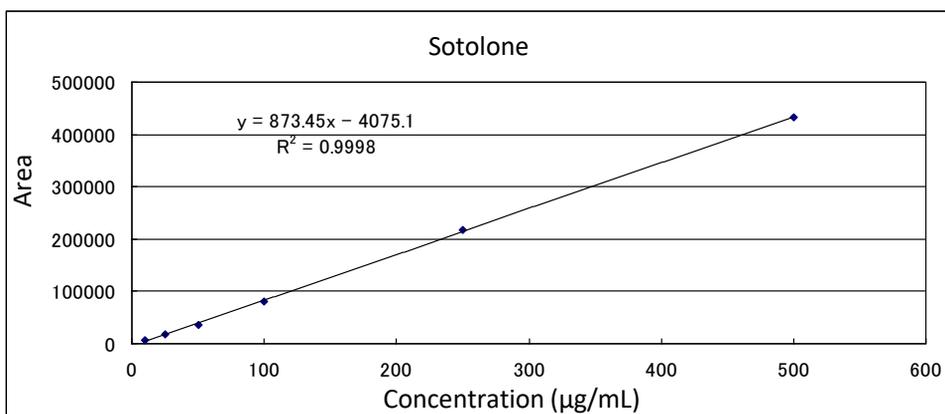
Sotolon  
3-hydroxy-4,5-dimethyl-2(5H)-  
furanone

Structures created using Chemistry 4-D Draw which is provided  
By ChemInnovayon Software, Inc.

### GC Condition

<b>System</b>	:GC - FID
<b>Column</b>	: InertCap Pure-WAX 0.25 mm I.D. x 30 m df = 0.25 µm
<b>Column Temp.</b>	: 160 °C
<b>Carrier Gas</b>	: He 100 kPa
<b>Injection</b>	: Split Flow 50 mL/min 1 µL 240 °C
<b>Detection</b>	: FID Range 10 <sup>10</sup> 240 °C

### Calibration curve



## Comparison with a column from another manufacturer

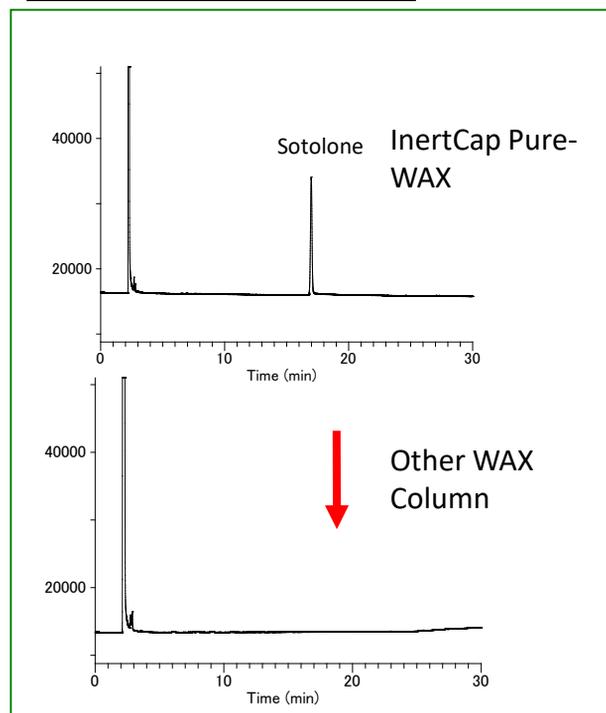
### Repeatability of 10 µg/mL injections of Sotolone

	Sotolone
1 st	6936
2 nd	7043
3 rd	7101
4 th	6840
5 th	6545
Ave.	6893
SD	219
CV (%)	3.17

Peaks that could not be detected using WAX-based columns from other companies were successfully separated, in terms of peak shape, repeatability and linearity using InertCap Pure WAX.

Many flavor components are present at very low concentrations, despite the sensitivity of GC they can be difficult to measure.

A more accurate sniffing system can be built by using it in combination with a sniffing GC (OP275).



**\*Sotolon is very unstable. Please inquire if you intend to analyze under different conditions.**

### InertCap Pure-WAX

I.D. (mm)	Length (m)	df (µm)	Max. Operating Temp.(°C)	Cat.No.
0.25	30	0.25	iso-260-Prog.260	1010-68142
0.25	60	0.25	iso-260-Prog.260	1010-68162
0.32	30	0.25	iso-260-Prog.260	1010-68242
0.32	60	0.25	iso-260-Prog.260	1010-68262
0.53	15	1.0	iso-240-Prog.240	1010-68425
0.53	30	1.0	iso-240-Prog.240	1010-68445

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