

# Micro Sample Collector MSC

The MSC is a very useful tool used to collect a small amount of liquids or paste-like materials that are difficult to pick up using tweezers.

## Features

### 1. Easy sampling of powdered samples

The tip of the MSC is a micro coil (o.d.=0.3 mm, L=5 mm), which is made of deactivated micro coil and is retractable into the needle. By lightly touching or rubbing the material of interest with the coil, a sub-milligram of sample can be collected. Using tweezers, the micro coil alone can be used for sampling.

### 2. Simple analysis

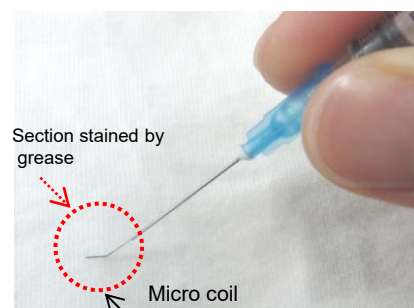
The sample collected on the micro coil can be directly injected into GC if the sample is volatile, or the micro coil alone can be placed in a sample cup for pyrolysis if the sample is a polymeric material. Also a solvent extract from the micro coil can be analyzed by HPLC. The MSC is useful for other sample preparations required for your specific analytical purposes.

### 3. Low cost and disposable

The micro coil is disposable, but depending on analytical purposes it can be reused by cleaning with a solvent.

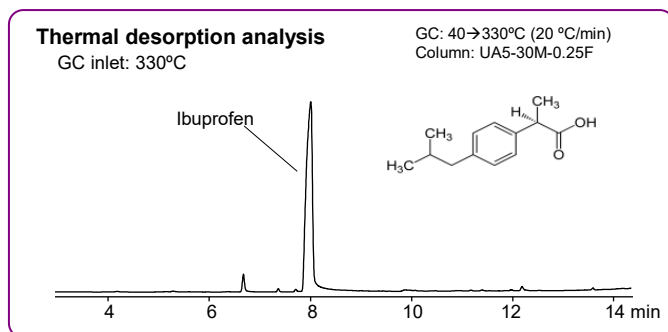


Micro Sample Collectors



Sampling with Micro Sample Collector

## Application



White powder-like material remained on cotton handkerchief was collected by gently touching the surface with the micro coil, followed by retracting the coil into the syringe needle.

The MSC needle was then inserted into GC injector for analysis. The chromatogram shown on the left clearly shows the peak for thermally desorbed ibuprofen, a nonsteroidal anti-inflammatory drug.

Ref.: T. Kaneko, et al., "Development and Applications of a Sampling Device Using Micro Coil for GC", Bunseki Kagaku (Japanese), 64, (2015) 363-369

## Specifications

- Product structure : Plastic syringe, needle, deactivated micro coil
- Recommended instruments : Multi-functional Pyrolyzer, any GC with split/splitless injector

| Product                    | Product No. | Contents  |
|----------------------------|-------------|---|
| Micro Sample Collector kit | PY1-1070    | Micro Sample Collector: 5 ea., Micro coil S: 20 ea. |
| Micro Sample Collector     | PY1-1071    | Micro Sample Collector: 5 ea.                       |
| Micro coil S               | PY1-1075    | Micro coil S: 100 ea. (5 bottles of 20 ea.)         |

\* The stainless steel micro coil has been deactivated by forming a thin film of SiO<sub>2</sub> on the coil surface using Frontier Labs proprietary multi-layer gradient deposition technology. The color of individual coils may vary but it poses no problem in quality.