

# Thermal Desorption Tubes with Unique Barcodes



Features and Benefits

What's Inside the Tube – Product  
Naming Guide

Product Information

Storage Endcaps

## Thermal Desorption Tubes with Unique Barcodes

Supelco® was the first to lead the way with barcoded glass thermal desorption tubes back in 2009. We now introduce our stainless steel tubes with a unique laser-etched barcode and number on every tube. Our stainless steel tubes feature a barcode on one side and the product name on the opposite side, informing you what is inside. Whether you purchase our thermal desorption tubes conditioned, or unconditioned, the barcode is readable after many pre-conditioning cycles.

### Features and Benefits

- All Carbotrap® products supplied with our adsorbent technology inside
- More consistent back pressure from tube-to-tube
- Easy-to-read stainless steel tube markings
- Glass-fritted tubes supplied with frit at optimized location
- Pre-conditioned tubes available sealed in TDS<sup>3™</sup> storage container or brass endcaps
- Barcode readable after many pre-conditioning cycles



### What's Inside the Tube – Product Naming Guide\*

Product names you know and trust, like Carbotrap 300, were developed by Supelco in collaboration with the US EPA for the Toxic Organic (TO) Methods.

#### What does the naming mean?

The Carbotrap name is our registered trademark and flagship of our unique carbon technology expertise.

#### What do the numbers mean?

- 100 series: Single adsorbent bed thermal desorption tubes
- 200 series: Dual adsorbent bed thermal desorption tubes
- 300 series: Three adsorbent bed thermal desorption tubes
- 400 series: Four adsorbent bed thermal desorption tubes

Because we developed these adsorbent tube configurations at Supelco, we guarantee the authenticity of the adsorbents and that each and every tube delivers the quality and value you trust.



Product Name	Adsorbents	Compounds
Carbotrap 100	Carbotrap B	C5-C12 compounds in air
Carbotrap 150	Glass beads, Carbotrap C	Large molecules in air or aqueous samples
Carbotrap 200	Glass beads, Carbotrap B, Carbosieve® S-III	C2-C14 compounds in air
Carbotrap 201	Carbopack B, Carboxen® 1000	Focusing semivolatile to very volatile compounds
Carbotrap 202	Carbopack B, Carbopack C	C5-C20 compounds in air
Carbotrap 217	Carbotrap B, Carboxen 1000	TO-17 compounds and other volatile compounds in air
Carbotrap 300	Carbotrap C, Carbotrap B, Carbosieve S-III	C2 and larger compounds in air
Carbotrap 301	Carbopack C, Carbopack B, Carboxen 1000	Focusing volatile and semivolatile compounds
Carbotrap 302	Carbopack C, Carbopack B, Carboxen 1001	Volatile compounds in aqueous solutions
Carbotrap 317	Carbotrap C, Carbotrap B, Carboxen 1000	TO-17 compounds and other volatile and semivolatiles in air
Carbotrap 349	Carbopack Y, Carbopack B, Carboxen 1003	NIOSH 2549: Volatile organic compounds
Carbotrap 370	Carbopack F, Carbopack C, Carbopack B	C5-C30 compounds thermally extracted from solid samples; focusing semivolatile compounds
Carbotrap 400	Carbotrap F, Carbotrap C, Carbotrap B, Carboxen 569	C2 and larger compounds in aqueous samples

\*Supelco can only guarantee product quality when the tubes and adsorbents originate from our production facility.

[sigma-aldrich.com/thermaldesorption](http://sigma-aldrich.com/thermaldesorption)

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## Product Information

Available in glass-fritted and stainless steel tubing with unique barcode label

Dimensions: ¼ in. O.D. (6.35 mm) × 3.5 in L (89 mm)

### Unconditioned Thermal Desorption Tubes with Barcodes

Package Size: 10 Tubes



Stainless Steel Cat. No.	Glass Fritted Cat. No.	Description	Applications
30131-U	30132-U	Tenax® TA (35/60)	EPA TO-1, EPA IP-1B
30133-U	30134-U	Tenax TA (60/80)	EPA TO-1, EPA IP-1B
30135-U	30136-U	Carbopack B	ASTM D6196; Wide range of VOCs
30137-U	30138-U	Carbotrap 217 for "Air Toxics"	EPA TO-14-Air Toxics; EPA TO-17
30139-U	30141-U	Carbotrap 300	US EPA: TO-1, TO-2, TO-3, TO-17

### Preconditioned Thermal Desorption Tubes

Stainless Steel – Package Size: 10 tubes



TDS <sup>3</sup> Cat. No.	Brass End-Cap Cat. No.	Description	Applications
20010-U	29741-U	Tenax TA (60/80)	EPA TO-1, EPA IP-1B
20011-U	29742-U	Tenax GR (60/80)	Extends range of Tenax TA
20012-U	29743-U	Carbosieve S-III	EPA TO-2
20013-U	29744-U	Carbotrap 217 for "Air Toxics"	EPA TO-14-Air Toxics; EPA TO-17
20083-U	29745-U	Carbotrap 202 (40/60)	EPA TO-17
21705-U	29746-U	Carbotrap 300	US EPA: TO-1, TO-2, TO-3, TO-17

### Glass-Fritted

Package Size: 10 Tubes



TDS <sup>3</sup> Cat. No.	Brass End-Cap Cat. No.	Description	Applications
29530-U	29747-U	Tenax TA (35/60)	EPA TO-1, EPA IP-1B
29539-U	29748-U	Tenax TA (60/80)	EPA TO-1, EPA IP-1B
29549-U	29749-U	Tenax GR (60/80)	Extends range of Tenax TA
29531-U	29750-U	Carbotrap 217 for "Air Toxics"	EPA TO-14-Air Toxics; EPA TO-17
29532-U	29751-U	Carbotrap 300	EPA: TO-1, TO-2, TO-3, TO-17
29533-U	29752-U	Carbotrap 349	NIOSH 2549, US EPA IP-1B
29534-U	29753-U	Carboxen 569 (20/45)	—
29535-U	29754-U	Carbopack B	ASTM D6196; Wide range of VOCs
29536-U	29755-U	Graphosphere™ 2016 (60/80)	—
29537-U	29756-U	Carbopack X	1,3-Butadiene; US EPA: TO-17

### Glass (No Frit) Sealed with Brass End Caps

Cat. No.	Description	Applications
28715-U	Tenax TA (60/80)	EPA TO-1, EPA IP-1B
28718-U	Tenax TA (60/80); Carboxen 1018 (60/80)	EPA TO-1, EPA IP-1B; EPA TO-17

### Empty Tubes

Package Size: 10 Tubes

Cat. No.	Description
21822-U	Empty Stainless Steel TD Tube
29538-U	Empty Glass-Fritted TD Tube w/Barcode
28714-U	Empty Glass (No Frit) TD Tube w/Barcode

## Storage End Caps

### TDS<sup>3</sup> Storage Container

Following conditioning, we recommend you store the tubes in our reusable TDS<sup>3</sup> container (Thermal Desorption Tube Storage and Sampling System) as an alternative to brass storage caps. The TDS<sup>3</sup> system eliminates internal dead volume, minimizes the risk of contamination from outside sources, and protects tubes from damage. No need to carry tools in the field.



Cat. No.	Description
25097-U	TDS <sup>3</sup> for 6.35 mm O.D. x 89 mm L Tubes

### Precleaned and Assembled Swagelok® End Fittings

For use with ¼ inch O.D. Thermal Desorption Tubes. Ideal for those who use unconditioned thermal desorption tubes and condition in-house before use. We save you the extra step by providing specially precleaned and conditioned end-fittings, ready-for-use.



Cat. No.	Description
23094-U	Precleaned and Assembled End Fittings, pk of 20

## Storage End Caps for ¼ in. O.D. Thermal Desorption Tubes

Package Size: 20



Cat. No.	Description
28012-U	Replacement Ferrules for TMX Brass Caps
28011-U	TurboMatrix™ Storage Cap, brass
28002-U	PTFE End Caps for TurboMatrix
28019-U	Storage Container Cap, PTFE, PerkinElmer® ATD-400

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