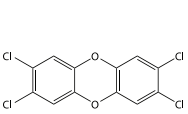
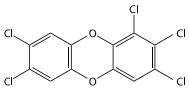
SERVICES SUMMARY 8290/8290A

Testing for Polychlorinated Dibenzo-p-Dioxins and Dibenzofurans by High Resolution GC/MS: EPA Method 8290/8290A


2,3,7,8-TCDD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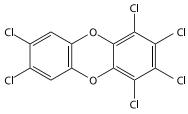
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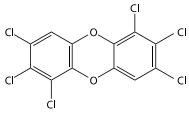
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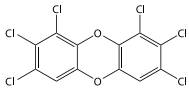
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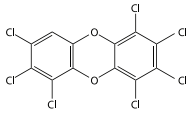
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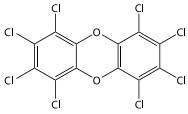
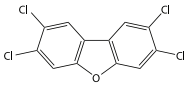
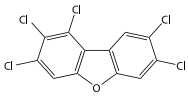

OCDD


2,3,7,8-TCDF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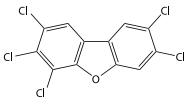
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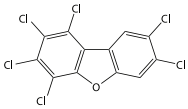
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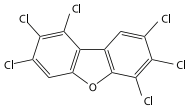
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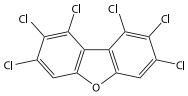
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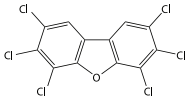
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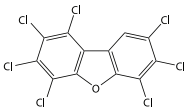
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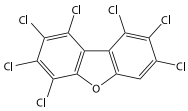
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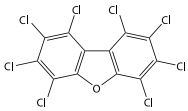
OCDF

METHOD	CONGENERS	DESCRIPTION	MATRIX	RL/PQL[1]	TAT[2]	CONTAINER	PRESERVATION*	HOLD TIMES[3]	MIN VOLUME
8290A	2,3,7,8 TCDD Only	2,3,7,8 Tetrachlorodibenzo-p-dioxin **only** | All matrices	Water	10 pg/L	10 Days	Two 1-Liter (AG)	Refrigerate <6° C Unpreserved	30 Days	1 L
			Solid	1.0 ng/Kg		One 4-8 oz (AG)			25 g
			Tissues	1.0 ng/Kg		Aluminum Foil	Freeze		25 g
8290A	PCDDs/PCDFs (Tetra - Octa)	Polychlorinated dibenzo-p-Dioxins / Polychlorinated dibenzofurans | 17 Dioxin/Furan congeners and Totals | All Matrices	Water	10-100 pg/L	10 Days	Two 1-Liter (AG)	Refrigerate <6° C Unpreserved	30 Days	1 L
			Solid	1-10 ng/Kg		One 4-8 oz (AG)			25 g
			Tissues	1-10 ng/Kg		Aluminum Foil	Freeze		25 g

Notes

[1] RLs/PQLs subject to change, please contact lab for current values.
[2] Standard TAT is measured by business days – rush/customized TAT may be available by prearrangement.
[3] Some State or Federal agencies may have alternative hold times and those must be met.
*All methods require samples to remain in darkness or out of direct contact with sunlight.

Method Overview

This SW-846 method provides procedures for the detection and quantitative measurement of (7) polychlorinated dibenzo-p-dioxins and (10) polychlorinated dibenzofurans (tetra through octa) in a variety of environmental matrices including: solid, aqueous, ash, biota, etc. The analysis calls for the use of Gas Chromatography/High-Resolution Mass Spectrometry (GC/HRMS) on purified sample extracts and provides an option for reporting the analytical results in terms of the toxic equivalency factors. Method 8290/8290A is normally utilized in conjunction with RCRA regulatory action in support of remediation activities at contaminated environmental sites.

Method Detection Limits

Actual detection limits achieved by method 8290/8290A will vary according to the sample matrix and by homologue group but to be valid, must meet the requirements of the method. In order to achieve lower detection limits, sample extracts must undergo an extensive cleanup process prior to analysis in order to remove interferences. For a complete list of reportable analytes and current limits, please contact Pace Analytical®

Method QAQC:

- Labeled internal standard recoveries are continuously monitored to ensure data quality and method compliance.
- Lab Blanks – 1 per 20 samples.

Certifications:

Department of Defense (DoD) · NELAC
Multiple States · ISO/IEC 17025: 2017

Instrumentation:

3 – GC/HRMS – Autospec Ultima High Resolution Mass Spectrometers
3 – GC/HRMS – Autospec Premier High Resolution Mass Spectrometers

Sample Matrices:

Waste Water · Soil/Sediment
Hazardous Waste · Biological Tissue

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