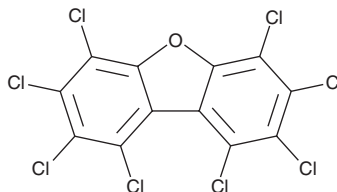


PRODUCT INFORMATION

1,2,3,4,6,7,8,9-Octachlorodibenzofuran

Item No. 38624

CAS Registry No.: 39001-02-0
 Synonyms: OCDF, PCDF 135
 MF: $C_{12}Cl_8O$
 FW: 443.8
 Purity: $\geq 95\%$
 Supplied as: A solid
 Storage: $-20^{\circ}C$
 Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

1,2,3,4,6,7,8,9-Octachlorodibenzofuran is supplied as a solid. A stock solution may be made by dissolving the 1,2,3,4,6,7,8,9-octachlorodibenzofuran in the solvent of choice, which should be purged with an inert gas. 1,2,3,4,6,7,8,9-Octachlorodibenzofuran is slightly soluble in toluene.

Description

1,2,3,4,6,7,8,9-Octachlorodibenzofuran is a dioxin-like polychlorinated dibenzofuran (PCDF).¹ It induces a seven-fold increase in ethoxyresorufin-O-deethylase (EROD) activity, a marker of cytochrome P450 (CYP) isoform CYP1A1 activity, in mouse liver microsomes but not in skin or lung homogenates. 1,2,3,4,6,7,8,9-Octachlorodibenzofuran selectively accumulates and persists in the liver over adipose tissue in monkeys.² It has been found in the soil near municipal waste incinerators, in freshwater fish, and in blood from individuals that lived near or in herbicide-sprayed regions.³⁻⁵

References

1. De Vito, M.J., Maier, W.E., Diliberto, J.J., *et al.* Comparative ability of various PCBs, PCDFs, and TCDD to induce cytochrome P450 1A1 and 1A2 activity following 4 weeks of treatment. *Fundam. Appl. Toxicol.* **20**(1), 125-130 (1993).
2. Neubert, D., Wiesmüller, T., Abraham, K., *et al.* Persistence of various polychlorinated dibenzo-*p*-dioxins and dibenzofurans (PCDDs and PCDFs) in hepatic and adipose tissue of marmoset monkeys. *Arch. Toxicol.* **64**(6), 431-432 (1990).
3. Harnly, M., Stephens, R., McLaughlin, C., *et al.* Polychlorinated dibenzo-*p*-dioxin and dibenzofuran contamination at metal recovery facilities, open burn sites, and a railroad car incineration facility. *Environ. Sci. Technol.* **29**(3), 667-684 (1995).
4. Zacharewski, T., Safe, L., Safe, S., *et al.* Comparative analysis of polychlorinated dibenzo-*p*-dioxin and dibenzofuran congeners in Great Lakes fish extracts by gas chromatography-mass spectrometry and in-vitro enzyme induction activities. *Environ. Sci. Technol.* **23**(6), 730-735 (1989).
5. Vu, T.S., Nishijo, M., Nishino, Y., *et al.* Polychlorinated dibenzo-*p*-dioxins and polychlorinated dibenzofurans in blood samples from historically herbicide-sprayed areas and rural and industrialized unsprayed areas in Vietnam. *Chemosphere* **326**, 138331 (2023).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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