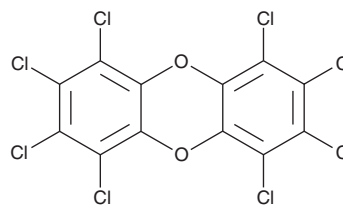


PRODUCT INFORMATION

1,2,3,4,6,7,8,9-Octachlorodibenzo-*p*-dioxin

Item No. 38598

CAS Registry No.: 3268-87-9
Formal Name: 1,2,3,4,6,7,8,9-octachloro-dibenzo[b,e][1,4]dioxin
Synonyms: NSC 37651, OCDD, PCDD 75
MF: C₁₂Cl₈O₂
FW: 459.8
Purity: ≥90%
Supplied as: A solid
Storage: -20°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-Octachlorodibenzo-*p*-dioxin is supplied as a solid. A stock solution may be made by dissolving the 1,2,3,4,6,7,8,9-octachlorodibenzo-*p*-dioxin in the solvent of choice, which should be purged with an inert gas. 1,2,3,4,6,7,8,9-Octachlorodibenzo-*p*-dioxin is slightly soluble in methanol.

Description

1,2,3,4,6,7,8,9-Octachlorodibenzo-*p*-dioxin is a polychlorinated dibenzodioxin (PCDD).¹ It increases ethoxyresorufin-O-deethylase (EROD) activity, a marker of cytochrome P450 (CYP) isoform CYP1A1 activity, in isolated rat liver microsomes (ED₅₀ = 750 µg/kg). 1,2,3,4,6,7,8,9-Octachlorodibenzo-*p*-dioxin (50 µg/kg) induces hepatic fatty vacuolization in rats. It has been found in animal feed, freshwater fish, ash/soil from open burn sites, and in the air near municipal waste incinerators.²⁻⁵

References

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2. Pajurek, M., Warenik-Bany, M., and Mikolajczyk, S. Feed as a source of dioxins and PCBs. *Chemosphere* **308**(Pt 1), 136243 (2022).
3. 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).
4. 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).
5. Hu, S.-W., ChangChien, G.-P., and Chan, C.-C. PCDD/Fs levels in indoor environments and blood of workers of three municipal waste incinerators in Taiwan. *Chemosphere* **55**(4), 611-620 (2004).

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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