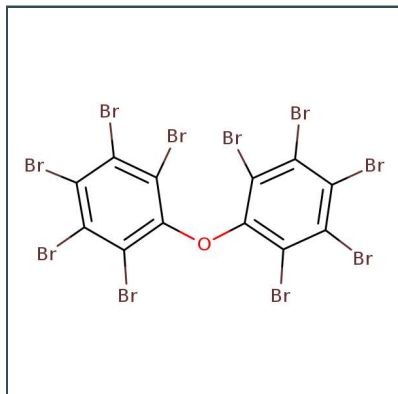


2,2',3,3',4,4',5,5',6,6'-Decabromodiph...

1163-19-5 | DTXSID9020376

Searched by DTXSID9020376.

Chemical Details



Wikipedia

Decabromodiphenyl ether (also referred to as **decaBDE**, **DBDE**, **BDE-209**) is a brominated flame retardant which belongs to the group of polybrominated diphenyl ethers (PBDEs). It was commercialised in the 1970s and was initially thought to be safe, but is now recognised as a hazardous and persistent pollutant. It was added to Annex A of the Stockholm Convention on Persistent Organic Pollutants in 2017, which means that treaty members must take measures to eliminate its

[Read more](#)

Quality Control Notes

Polybrominated diphenyl ethers congener;

Intrinsic Properties

Molecular Formula: C₁₂Br₁₀O MOL FILE FIND ALL CHEMICALS

Average Mass: 959.171 g/mol ISOTOPE MASS DISTRIBUTION

Monoisotopic Mass: 949.178295 g/mol

Structural Identifiers

IUPAC Name: 1,1'-Oxybis(pentabromobenzene)

SMILES: BrC1=C(Br)C(Br)=C(OC2=C(Br)C(Br)=C(Br)C(Br)=C2Br)C(Br)=C1Br

InChI String: InChI=1S/C12Br10O/c13-1-3(15)7(19)11(8(20)4(1)16)23-12-9(21)E

InChIKey: WHHGLZMJPIXIBIX-UHFFFAOYSA-N

[Copy All](#)

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STRUCTURAL SKELETON

FULL STRUCTURE

Linked Substances

Same Connectivity: [2 records](#) (based on first layer of InChI)

Mixtures, Components and Isotopomers: [DTXCID50376: 2 records](#);

Similar Compounds: [369 records](#) (based on Tanimoto coefficient >0.8)

Presence in Lists

Federal

- [Navigation Panel to Biosolid Lists](#) [LIST: Chemicals in biosolids \(2021\)](#)
- [LIST: Chemicals in biosolids \(2022\)](#) [CDR: Chemical Data Reporting 2016](#)
- [CDR: Chemical Data Reporting 2020](#)
- [EPA|CHEMINV: EPA Chemical Inventory for ToxCast \(20170203\)](#)
- [Chemical and Products Database v1](#) [EPA|ECOTOX: Ecotoxicology knowledgebase version 4](#)
- [EPA|ECOTOX: Ecotoxicology knowledgebase version 5](#)
- [EPA|ECOTOX: Ecotoxicology knowledgebase version 6](#)
- [EPA|ENDOCRINE: EDSP Universe of Chemicals](#)
- [EPA|CHEMINV: ToxCast/Tox21 Chemical inventory available as DMSO solutions \(20181123\)](#)
- [EPA: High Production Volume List](#) [EPA Substance Registry Service \(May 2022\)](#)
- [EPA|EPA Substance Registry Service \(January 2023\)](#)
- [Consolidated List of Lists under EPCRA/CERCLA/CAA §112\(r\) \(June 2019 Version\)](#)
- [LIST: FDA UNII List April 12th 2021 Download](#) [PESTICIDES: InertFinder](#)
- [EPA: IRIS Chemicals](#) [EPA: IRIS current non-cancer assessments \(as of February 21st 2023\)](#)
- [LIST: National Health and Nutrition Examination Survey \(NHANES\) data](#)
- [NIOSH: International Chemical Safety Cards](#)
- [EPA Regional Screening Levels Data Chemicals List](#) [TOX21SL: Tox21 Screening Library](#)
- [TOXCAST is the complete list of chemicals having undergone some level of screening in EPA's ToxCast research](#)
- [ToxCast EPA contribution to the Tox21 inventory](#) [EPA ToxCast invitrodb v3.0 \(October 2018\)](#)
- [EPA ToxCast Screening Library \(ph3 subset\)](#)
- [EPA ToxCast Screening Library \(Phase III subset\)](#) [EPA: Toxicity Values Version 5 \(Aug 2018\)](#)
- [EPA: Toxics Release Inventory](#)
- [TSCA Active Inventory non-confidential portion \(updated February 3rd 2021\)](#)
- [TSCA Active Inventory non-confidential portion \(updated March 23rd 2022\)](#)
- [TSCA Active Inventory non-confidential portion \(Updated February 17th 2023\)](#)
- [TSCA Active Inventory non-confidential portion \(updated March 20th 2020\).](#)
- [TSCA Active Inventory non-confidential portion \(updated August 20th 2021\)](#)
- [TSCA Active Inventory non-confidential portion \(Updated August 16th 2023\)](#)
- [EPA|TSCA: Work Plan Chemicals \(2014\)](#)

US State

- [California Safe Cosmetics Program \(CSCP\) Product Database](#)
- [CalSAFER Safer Consumer Products Information Management System](#)
- [LIST: Minnesota Department of Health Chemicals of High Concern and Priority Chemicals](#)
- [LIST: Minnesota Department of Health Chemicals of High Concern and Priority Chemicals \(Last updated Januar](#)
- [WATER: Regional Monitoring Program for Water Quality in San Francisco Bay](#)

International

- [Canadian Domestic Substances List 2019](#)
- [PLASTICS|NORMAN: A list from the Plastic Additives Initiative Mapping Exercise by ECHA](#)

ECHA Candidate List of Substances of Very High Concern for Authorization

FOOD: EFSA OpenFoodTox

European Inventory of Existing Commercial chemical Substances

WATER|NORMAN: French Monitoring List

IARC: Group 3: Not classifiable as to its carcinogenicity to humans

NORMAN: REACH Chemicals List Provided to NORMAN Network

Other

LIST: BLOODEXPOSOME Chemicals identified as part of the blood exposome

LIST: Overlap of the Blood Exposome with the February 2022 TSCA ACTIVE non-confidential list

ARTICLE; Bench-Mark Dose Human Health Assessment List (Wignall et al., 2014)

CAMEO Hazardous Chemical Datasheets

NORMAN|MASSPECDB: The Unified Collision Cross Section (CCS) Compendium

METABOLITES: HBM4EU CECscreen: Screening List for Chemicals of Emerging Concern

NORMAN|Chemicals of Emerging Concern (CECs) in plastic toys

ARTICLE: Collaborative Estrogen Receptor Activity Prediction Project (CERAPP)

ARTICLE: Collaborative Modeling Project for Androgen Receptor Activity (COMPARA)

Navigation Panel to CPDat Versioned Structure Lists

Chemical and Products Database v2

Carcinogenic Potency Database Summary Tables - All Species

PLASTICS|NORMAN: Database of Chemicals possibly (List B) associated with Plastic Packaging (CPPdb)

Comparative Toxicogenomics Database

EPA Substance Registry Service (October 2022)

EPA|EPA Substance Registry Service (November 2023)

NORMAN:Exposome-Explorer

CATEGORY: Flame Retardants

Food Contact Chemicals database (FCCdb) - version 5

FOODPLASREVIEW

CATEGORY: Flame Retardants - US CPSC/US EPA Flame Retardant Inventory

CATEGORY: Likely Flame Retardants - Partial subset of the US CPSC/US EPA Flame Retardant Inventory

GHS Skin and Eye

LIST:Hazardous Substances Data Bank

EPA High-Throughput Phenotypic Profiling U-2 OS ToxCast Screen

Record Information



Citation: U.S. Environmental Protection Agency. Comptox Chemicals Dashboard. <https://comptox.epa.gov/dashboard/chemical/details/DTXSID9020376> (accessed June 10, 2024) 2,2',3,3',4,4',5,5',6,6'-Decabromodiphenyl ether

Data Quality:

Level 1: Expert curated, highest confidence in accuracy and consistency of unique chemical identifiers

Level 2: Expert curated, unique chemical identifiers using multiple sources

Level 3: Programmatically curated from high quality EPA source, unique chemical identifiers have no conflicts in ChemID and PubChem

Level 4: Programmatically curated from ChemID, unique chemical identifiers have no conflicts

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