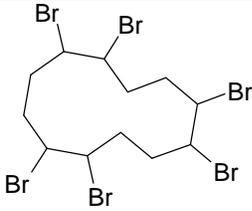
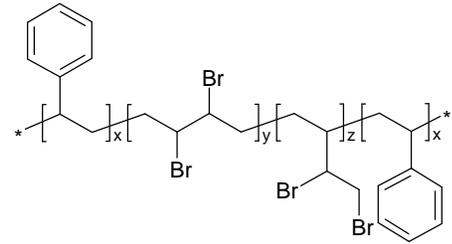
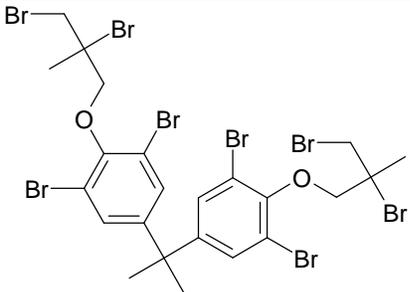


Hexabromocyclododecane (HBCD) Alternatives Assessment

CAS RN	Chemical Name	Common Names, Synonyms, Trade Names and(or) Acronyms	Molecular Formula	Structure
25637-99-4	Cyclododecane, hexabromo- (a non-specific mixture of all isomers)	HBCD; HBCDD	$C_{12}H_{18}Br_6$	 <p>Representative structure</p>
3194-55-6	1,2,5,6,9,10-hexabromocyclododecane (mixture of three main diastereomers)			

List of Known or Expected Functional HBCD Alternatives Evaluated in the DfE Alternatives Assessment^a February 2012

CAS RN	Chemical Name	Common Names, Synonyms, Trade Names and(or) Acronyms	Molecular Formula	Structure
1195978-93-8	Benzene, ethenyl-, polymer with 1,3-butadiene, brominated	Polymeric FR; Block copolymer of polystyrene and brominated polybutadiene; Emerald 3000; FR122P	$(C_8H_9)_x(C_4H_6Br_2)_y(C_4H_6Br_2)_z$	 <p>Representative structure</p>
97416-84-7 ^b	Benzene, 1,1'-(1-methylethylidene)bis[3,5-dibromo-4-(2,3-dibromo-2-methylpropoxy)]; 1,1'-(Isopropylidene)bis(3,5-dibromo-4-(2,3-dibromo-2-methylpropoxy)benzene); 1,1'-propane-2,2-diylbis[3,5-dibromo-4-(2,3-dibromo-2-methylpropoxy)benzene]; 1,3-dibromo-5-[2-[3,5-dibromo-4-(2,3-dibromo-2-methylpropoxy)phenyl]propan-2-yl]-2-(2,3-dibromo-2-methylpropoxy)benzene; 2,2-bis[4-(2,3-dibromopropoxy)-3,5-dibromophenyl] propane	Pyroguard SR-130; SR-130	$C_{23}H_{24}Br_8O_2$	

^a The inclusion of these chemicals in the DfE Alternatives Assessment does not denote environmental preferability.

^b Chemicals shown here with the superscript "b" are not listed on the non-confidential version of the Toxic Substances Control Act (TSCA) Inventory. Chemicals that are manufactured (including imported) for commercial purposes within the USA, and that are subject to TSCA, must be listed on the TSCA Inventory. There are two versions of the Inventory, one containing specific chemical identities not claimed as confidential by the initial lister (i.e., Premanufacture Notice, or PMN, submitter) and another that contains only generic chemical identities to protect information claimed as confidential. If a chemical is not listed in either version of the Inventory and does not fall under any application exemption (e.g., polymer, low volume, etc) it may not be imported or sold in the USA without prior submission of a PMN to the Environmental Protection Agency. Further information can be found here: <http://www.epa.gov/opptintr/existingchemicals/pubs/tscainventory/basic.html>.