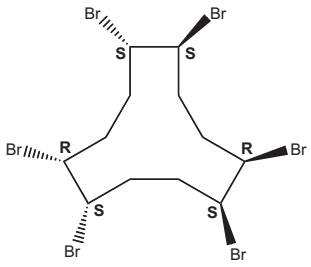
WELLINGTON Reporter
PRODUCT UPDATES FROM WELLINGTON LABORATORIES

April 28, 2017

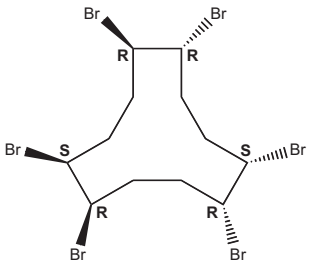
NEW PRODUCTS

Certified Reference Standards of Native HBCD Enantiomers
(+)aHBCD, (-)aHBCD, (+)gHBCD, & (-)gHBCD

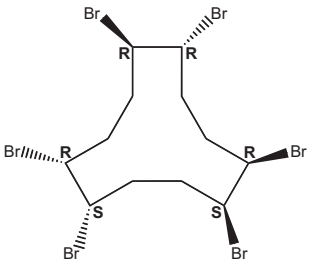
1,2,5,6,9,10-Hexabromocyclododecane (HBCD) is an additive flame retardant that is listed under Annex A of the Stockholm Convention for elimination due to its potential persistence and toxicity. It has been reported to be present at percent levels in extruded and high-impact polystyrene foams and to a lesser extent in electrical equipment housings. The HBCD technical product is composed of three main diastereomers (alpha, beta, and gamma) which are routinely analyzed for in environmental matrices. Variation in the physicochemical properties among these stereoisomers leads to differential biological uptake and degradation rates resulting in the measurement of non-racemic HBCD distributions. For this reason, **Wellington** has produced certified reference standards for the enantiomers of alpha-HBCD (which is typically dominant in biotic matrices) and gamma-HBCD (which is typically dominant in abiotic matrices as well as the commercial mixture) to aid researchers in the accurate determination of these stereoisomers.



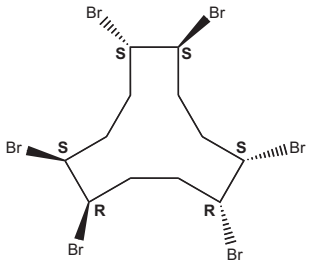
(+)aHBCD



(-)aHBCD



(+)gHBCD



(-)gHBCD

Catalogue Number	Product (toluene)	Qty	Conc
(+)aHBCD	(+)-α-1*S*,2*S*,5*R*,6*S*,9*S*,10*R*-Hexabromocyclododecane	1.2 ml	50 µg/ml
(-)aHBCD	(-)-α-1*R*,2*R*,5*S*,6*R*,9*R*,10*S*-Hexabromocyclododecane	1.2 ml	50 µg/ml
(+)gHBCD	(+)-γ-1*R*,2*R*,5*R*,6*S*,9*S*,10*R*-Hexabromocyclododecane	1.2 ml	50 µg/ml
(-)gHBCD	(-)-γ-1*S*,2*S*,5*S*,6*R*,9*R*,10*S*-Hexabromocyclododecane	1.2 ml	50 µg/ml

Please contact your local distributor or info@well-labs.com for pricing and delivery.

Visit our website (www.well-labs.com) for a complete listing of our new products.

These standard solutions complement our existing lines of racemic HBCD reference standards:

Catalogue Number	Product (toluene)	Qty	Conc
aHBCD	α-1,2,5,6,9,10-Hexabromocyclododecane	1.2 ml	50 µg/ml
bHBCD	β-1,2,5,6,9,10-Hexabromocyclododecane	1.2 ml	50 µg/ml
gHBCD	γ-1,2,5,6,9,10-Hexabromocyclododecane	1.2 ml	50 µg/ml
dHBCD	δ-1,2,5,6,9,10-Hexabromocyclododecane	1.2 ml	50 µg/ml
eHBCD	ε-1,2,5,6,9,10-Hexabromocyclododecane	1.2 ml	50 µg/ml
zHBCD	ζ-1,2,5,6,9,10-Hexabromocyclododecane	1.2 ml	50 µg/ml
etaHBCD	η-1,2,5,6,9,10-Hexabromocyclododecane	1.2 ml	50 µg/ml
tHBCD	θ-1,2,5,6,9,10-Hexabromocyclododecane	1.2 ml	50 µg/ml
iHBCD	ι-1,2,5,6,9,10-Hexabromocyclododecane	1.2 ml	50 µg/ml
kHBCD	κ-1,2,5,6,9,10-Hexabromocyclododecane	1.2 ml	50 µg/ml

Mass-labelled HBCD reference standards:

Catalogue Number	Product (toluene)	Qty	Conc
MaHBCD	α-1,2,5,6,9,10-Hexabromo[$^{13}C_{12}$]cyclododecane	1.2 ml	50 µg/ml
MbHBCD	β-1,2,5,6,9,10-Hexabromo[$^{13}C_{12}$]cyclododecane	1.2 ml	50 µg/ml
MgHBCD	γ-1,2,5,6,9,10-Hexabromo[$^{13}C_{12}$]cyclododecane	1.2 ml	50 µg/ml
DaHBCD	α-1,2,5,6,9,10-Hexabromocyclododecane-d_{18}	1.2 ml	50 µg/m
DbHBCD	β-1,2,5,6,9,10-Hexabromocyclododecane-d_{18}	1.2 ml	50 µg/ml
DgHBCD	γ-1,2,5,6,9,10-Hexabromocyclododecane-d_{18}	1.2 ml	50 µg/ml

Native and mass-labelled HBCD solution/mixtures:

Catalogue Number	Product (toluene)	Qty	Conc
HBCD-MXA	Mixture of aHBCD, bHBCD, & gHBCD	1.2 ml	10 µg/ml ea
MHBCD-MXA	Mixture of MaHBCD, MbHBCD, & MgHBCD	1.2 ml	10 µg/ml ea

And related reference standard:

Catalogue Number	Product (toluene)	Qty	Conc
PBCD	*rac*-(1,5*R*,6*S*,9*S*,10*R*)-pentabromocyclododecene	1.2 ml	50 µg/ml