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Environmental fate & effects of new generation flame retardants

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Abbreviations

ACN	acetonitrile
ACR	acute to chronic ratio
ALPI	aluminum diethyl phosphinate
APP	ammonium polyphosphate
AR	androgenic receptor
ATH	aluminum trihydroxide
ATO	antimony trioxide
BCF	bioconcentration factor
BDE	brominated diphenylether
BDP	bisphenol A bis(diphenyl phosphate)
BPA-BDPP	bisphenol A bis(diphenyl phosphate), in this thesis referred to as BDP
BFR	brominated flame retardant
CAS no.	chemical abstracts service number
CFR	chlorinated flame retardant
CL	confidence limit
CRO	cumulative reproductive output
Deca-BDE	Decabrominated diphenyl ether
DOPO	9,10-dihydro-9-oxa-10-phosphaphenanthrene
DPP	diphenyl phosphate
DT ₅₀	dissipation time in which the concentration of a substance is reduced (by degradation, absorption, etc.) to 50% of the initial concentration after a given period
dTPP	deuterated triphenyl phosphate
DR	dioxin receptor
EC ₅₀	concentration that causes an effect (immobility or other) to 50% of the test population
ECHA	European chemicals agency
EP	European Parliament
ER	estradiol receptor
ESI	electrospray ionisation
FIA	flow injection analysis
FR	flame retardant
H	Henry's Law constant
HBCD	hexabromocyclododecane
HFFR	halogen free flame retardant
HOC	hydrophobic organic contaminant
HPV	high production volume
IC ₅₀	concentration that causes inhibition to 50% of the test population

ICP-AES	inductively coupled plasma (coupled to) atomic emission spectroscopy
IS	internal standard
ISO	international organization for standardization
K_{AW}	air-water partitioning coefficient
KOW	air-water partitioning coefficient
LC-MS/MS	high performance liquid chromatography (coupled to) tandem mass spectrometry
LD50	concentration that causes mortality to 50% of the test population
LOD	limit of detection
LOEC	lowest observed effect concentration
log	logarithm
LOQ	limit of quantification
LPV	low production volume
MeOH	methanol
MHO	magnesium hydroxide
MOPS	3-(N-morpholino)propanesulfonic acid
MPP	melamine polyphosphate
MRM	multi reaction monitoring
MW	molecular weight
n.c.	(chapter 2) not enough data to classify
NOEC	no observed effect concentration
OECD	organization for economic co-operation and development
OPFR	organophosphorus flame retardant
PBB	polybrominated biphenyls
PBDE	polybrominated biphenyl ether
PBDPP	resorcinol bis(diphenyl phosphate), in this thesis referred to as RDP
PBT	persistence, bioaccumulation and toxicity
POPs	persistent organic pollutant
QSAR	quantitative structure-activity relationship
r	population growth rate
RDP	resorcinol bis(diphenyl phosphate)
REACH	registration, evaluation, authorization and restriction of chemical substances
ROS	reactive oxygen species
RSD	relative standard deviation
SDIM	sulfadimethoxine
SI	supporting/supplemental information
SPE	solid phase extraction
STP	sewage treatment plant
Sw	saturated water concentration

TBBPA	tetra bromobisphenol A
TCEP	trischloro-ethyl phosphate
TCPP	trischloro-propyl phosphate
TDCP	trisdichloro-propyl phosphate
TOC	total organic carbon
TPP	triphenyl phosphate
t_r	retention time
TSS	total suspended solids
TTR	transthyretin
UNEP	United Nations Environmental Programme
vPvB	very persistent and very bioaccumulative
WHO	World Health Organisation
ZHS	zinc hydroxystannate
ZS	zinc stannate