

# UTENOS TRIKOTAZAS Combined MRSL

## Priority 11 group

The following reflects Utenos trikotazas RSL detection limits as of January 9th 2017.

These detection/reporting limits and test methods will be revised - at least early, to always reflect best current technology using lowest detection/reporting limits.

TBD - latest by 1st January 2020

Category	Name list	CAS	Detection limit		Test Method	STATUS Banned/ phase-out
			Input water waste water (µg/l)	Sludge - textiles raw materials - textile articles - chemicals (mg/kg)		
Alkylphenols (AP- APEO)	4-(1,1,3,3-Tetramethylbutyl)-phenol	140-66-9	1	1	With Reference To ASTM D7065 And By Gas Chromatography-Mass Spectrometry (GC-MS) And By Liquid Chromatography-Mass Spectrometry (LC-MS) Analysis	Phase-out
	OctylPhenol	27193-28-8	1	1		
	4-Octylphenol	1806-26-4	1	1		
	4-Nonylphenol (branched)	25152-52-3	1	1		
	Nonylphenol	104-40-5	1	1		
	Nonylphenol (mixed isomers)	90481-04-2	1	1		
	Nonylphenol Ethoxylates NPEO (1-2)	various	1	1		
	Nonylphenol Ethoxylates NPEO (3-18)	various	1	1		
	Nonylphenol ethoxylated	9016-45-9, 68412-54-4, 127087-87-0, 37205-87-1	1	1		
	4-Nonylphenol, ethoxylated	26027-38-3	1	1		
	Octylphenol Ethoxylates OPEO (1-2)	various	1	1		
	Octylphenol Ethoxylates OPEO (3-18)	various	1	1		
	4-tert-Octylphenoethoxylate	9036-19-5, 68987-90-6	1	1		
Phthalates	Di-Butyl Phthalate (DBP)	84-74-2	1	10	With Reference To EPA 8270 or ISO/DIN Method And By Gas Chromatography-Mass Spectrometry (GC-MS) And By Liquid Chromatography-Mass Spectrometry (LC-MS) Analysis	Banned
	Di(2-Ethyl Hexyl) Phthalate (DEHP)	117-81-7	1	10		
	Benzyl Butyl Phthalate (BBP)	85-68-7	1	10		
	Di-Iso-Nonyl Phthalate (DINP)	28553-12-0, 68515-48-0	1	10		
	Di-N-Octyl Phthalate (DNOP)	117-84-0	1	10		
	Di-Iso-Decyl PHTHALATE (didp)	26761-40-0, 68515-49-1	1	10		
	Di-Iso-Butyl Phthalate (DIBP)	84-69-5	1	10		
	Di-N-Hexyl Phthalate (DNHP)	84-75-3	1	10		
	Di-(2-methoxyethyl) phthalate (DMEP)	117-82-8	1	10		

	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	68515-42-4	1	10		
	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	1	10		
	Dipentyl phthalate (DPP)	131-18-0	1	10		
	Diisopentylphthalate	605-50-5	1	10		
	N-pentyl-isopentylphthalate	776297-69-9	1	10		
<b>Brominated and Chlorinated Flame retardants</b>	Polybrominated diphenyl ethers (PBDEs)	various	0,05	5	With Reference To EPA 527 (Modified), EPA 8321B And By Liquid Chromatography - Mass Spectrometry (LC-MS) And Gas Chromatography - Mass Spectrometry (GC-MS) Analysis	Banned
	Monobromo diphenyl ethers (MonoBDE)	-	0,5	5		
	Dibromo diphenyl ethers (DiBDE)	-	0,5	5		
	Tribromo diphenyl ethers (TriBDE)	-	0,5	5		
	Tetrabromo diphenyl ethers (TetraBDE)	40088-47-9	0,5	5		
	Pentabromo diphenyl ethers (PentaBDE)	32534-81-9	0,5	5		
	Hexabromo diphenyl ethers (HexaBDE)	36483-60-0	0,5	5		
	Heptabromo diphenyl ethers (HeptaBDE)	68928-80-3	0,5	5		
	Octabromo diphenyl ethers (OctaBDE)	32536-52-0	0,5	5		
	Nonabromo diphenyl ethers (NonaBDE)	63936-56-1	0,5	5		
	Decabromo diphenyl ether (DecaBDE)	1163-19-5	0,5	5		
	Tris(2,3-Dibromopropyl)-Phosphate	126-72-7	0,5	5		
	Tris(2-Chloroethyl)Phosphate (TCEP)	115-96-8	0,05	5		
	Hexabromocyclododecane (HBCDD)	3194-55-6	0,5	5		
	Tetrabromo-bisphenol A (TBBPA)	79-94-7	0,5	5		
Bis (2,3-dibromopropyl) phosphate	5412-25-9	0,5	5			
Tris(1,3-dichloro-2-propyl)phosphate (TDCPP)	13674-87-8	0,05	5			
Tris(1-chloro-2-propyl)phosphate (TCPP)	13674-84-5	0,5	5			
<b>Amines (Associated with Azo dyes)</b>	4-Aminodiphenyl	92-67-1	0,1	1	With Reference To DIN 38407-16, EN 14362-1/3 (Modified), By Gas Chromatographic - Mass Spectrometric (GC-MS) And High Performance Liquid Chromatographic (HPLC) Analysis	Banned
	Benzidine	92-87-5	0,1	1		
	4-Chloro-o-Toluene	95-69-2	0,1	1		
	2-Naphthylamine	91-59-8	0,1	1		
	o-Aminoazotoluene	97-56-3	0,1	1		
	2-Amino-4-Nitrotoluene	99-55-8	0,1	1		
	p-Chloroaniline	106-47-8	0,1	1		
	2,4-Diaminoanisole	615-05-4	0,1	1		

	4,4'-Diaminodiphenylmethane	101-77-9	0,1	1		
	3,3'-Dichlorobenzidine	91-94-1	0,1	1		
	3,3'-Dimethoxybenzidine	119-90-4	0,1	1		
	3,3'-Dimethylbenzidine	119-93-7	0,1	1		
	3,3'-Dimethyl-4,4'diaminodiphenylmethane	838-88-0	0,1	1		
	p-Cresidine	120-71-8	0,1	1		
	4,4'-Methylene-Bis(2-Chloroaniline)	101-14-4	0,1	1		
	4,4'-Oxydianiline	101-80-4	0,1	1		
	4,4'-Thiodianiline	139-65-1	0,1	1		
	o-Toluidine	95-53-4	0,1	1		
	2,4-Toluylenediamine	95-80-7	0,1	1		
	2,4,5-Trimethylaniline	137-17-7	0,1	1		
	o-Anisidine	90-04-0	0,1	1		
	p-Aminoazobenzene	60-09-3	0,1	1		
	2,4-Xylidine	95-68-1	0,1	1		
2,6-Xylidine	87-62-7	0,1	1			
<b>Organotin Compounds</b>	MBT(Monobutyltin)	78763-54-9	0,1	1	With Reference To EN ISO 17363 and by Gas Chromatography Mass Spectrometry (GC-MS)	<b>Banned</b>
	DBT(Dibutyltin)	1002-53-5	0,1	1		
	TBT(Tributyltin)	36643-28-4	0,1	1		
	DOT(Dioctyltin)	94410-05-6	0,1	1		
	MOT(Monooctyltin)	15231-44-4	0,1	1		
	DPHT(Diphenyltin)	1011-95-6, 6381-06-2	0,1	1		
	TeBT(Tetrabutyltin)	1461-25-2	0,1	1		
	TCHT(Tricyclohexyl Tin)	6056-50-4	0,1	1		
	TPT(Tripropyltin)	NA	0,1	1		
	TeET(Tetraethyltin)	597-64-8	0,1	1		
	Tributyltin oxide (TBTO)	56-35-9	0,1	1		
	Dibutyltin dichloride (DBTC)	683-18-1	0,1	1		
	Triphenyltin (TPHT)	668-34-8	0,1	1		
Dibutyltin hydrogen borate (DBB)	75113-37-0	0,1	1			
<b>PFCs</b>	PFBA	375-22-4	0,01	0,01	By Liquid Chromatography - Mass Spectrometry (LC-MS) Analysis	<b>Phase-out</b>
	PFPeA	2706-90-3	0,01	0,01		
	PFHxA	307-24-4	0,01	0,01		
	PFHpA	375-85-9	0,01	0,01		
	PFOA	335-67-1	0,01	0,01		

	PFNA	375-95-1	0,01	0,01		
	PFDA	335-76-2	0,01	0,01		
	PFA	2058-94-8	0,01	0,01		
	PFDaA	307-55-1	0,01	0,01		
	PFA	72629-94-8	0,01	0,01		
	PFA	376-06-7	0,01	0,01		
	PFA	375-73-5 or 59933-66-3	0,01	0,01		
	PFA	355-46-4	0,01	0,01		
	PFA	375-92-8	0,01	0,01		
	PFA	1763-23-1	0,01	0,01		
	PFA	335-77-3	0,01	0,01		
	4:2 FTOH	2043-47-2	0,1	0,1		
	6:2 FTOH	647-42-7	0,1	0,1		
	8:2 FTOH	678-39-7	0,1	0,1		
	10:2 FTOH	865-86-1	0,1	0,1		
	6:2 FTA	17527-29-6	0,01	0,01		
	8:2 FTA	27905-45-9	0,01	0,01		
	10:2 FTA	17741-60-5	0,01	0,01		
	PFOA	754-91-6	0,01	0,01		
	POFA	307-35-7	0,01	0,01		
	N-Me-FOA	31506-32-8	0,01	0,01		
	N-Et-FOA	4151-50-2	0,01	0,01		
	N-Me-FOA alcohol	24448-09-7	0,01	0,01		
	N-Et-FOA	1591-99-2	0,01	0,01		
	PF-3,7-DMOA	172155-07-6	0,01	0,01		
HPFA	1546-95-8	0,01	0,01			
4HPFA	34598-33-9	0,01	0,01			
1H, 1H, 2H, 2H-PFOA	27619-97-2	0,01	0,01			
Chlorobenzenes	Dichlorobenzenes various				With Reference To EPA 8260B, EPA 8270D And By Gas Chromatography-Mass Spectrometry (GC-MS) Analysis	Banned
	1,2-Dichlorobenzene	95-50-1	0,02	0,5		
	1,3-Dichlorobenzene	541-73-1	0,02	0,5		
	1,4-Dichlorobenzene	106-46-7	0,02	0,5		
	Trichlorobenzenes various					
	1,2,3-Trichlorobenzene	87-61-6	0,02	0,5		
1,2,4-trichlorobenzene	120-82-1	0,02	0,5			

	1,3,5-Trichlorobenzene	108-70-3	0,02	0,5		
	Tetrachlorobenzene	12408-10-5	0,02	0,5		
	1,2,3,4-tetrachlorobenzene	634-66-2	0,02	0,5		
	1,2,3,5-tetrachlorobenzene	634-90-2	0,02	0,5		
	1,2,4,5-tetrachlorobenzene	95-94-3	0,02	0,5		
	Pentachlorobenzene	608-93-5	0,02	0,5		
	Hexachlorobenzene	118-74-1	0,02	0,5		
	chlorobenzene	108-90-7	0,02	0,5		
Chlorinated solvents	Dichloromethane	75-09-2	1	0,5	With Reference To EPA 8260B And By Headspace Gas Chromatography Mass Spectrometric (HS-GC/MS) Analysis	Banned
	Chloroform	67-66-3	1	0,5		
	Tetrachloromethane	56-23-5	1	0,5		
	1,1,2-Trichloroethane	79-00-5	1	0,5		
	1,1-Dichloroethane	75-34-3	1	0,5		
	1,2-Dichloroethane	107-06-2	1	0,5		
	Trichloroethylene	79-01-6	1	0,5		
	Perchloroethylene	127-18-4	1	10		
	1,1,1-trichloroethane	71-55-6	1	0,5		
	1,1,1,2-Tetrachloroethane	630-20-6	1	0,5		
	1,1,2,2-Tetrachloroethane	79-34-5	1	0,5		
	Pentachloroethane	76-01-7	1	0,5		
	1,1-Dichloroethylene	75-35-4	1	0,5		
1,2,3-trichloropropane	96-18-4	1	0,5			
Chlorophenols	Pentachlorophenols (PCP)	87-86-5	0,5	0,05	With Reference To EPA 8270D And By Gas Chromatography-Mass Spectrometry (GC-MS) Analysis	Banned
	Tetrachlorophenols (TeCP)	25167-83-3	0,5	0,05		
	2,3,4,5-Tetrachlorophenol	4901-51-3	0,5	0,05		
	2,3,4,6-Tetrachlorophenol	58-90-2	0,5	0,05		
	2,3,5,6-tetrachlorophenol	935-95-5	0,5	0,05		
	Trichlorophenol (TriCP)	25167-82-2	0,5	0,05		
	2,4,6-trichlorophenol	88-06-2	0,5	0,05		
	2,3,4-trichlorophenol	15950-66-0	0,5	0,05		
	2,3,5-trichlorophenol	933-78-8	0,5	0,05		
	2,3,6-trichlorophenol	933-75-5	0,5	0,05		
	3,4,5-trichlorophenol	609-19-8	0,5	0,05		
	Dichlorophenols (DiCP)	25167-81-1	0,5	0,05		
	2,3-dichlorophenol	576-24-9	0,5	0,05		
2,4-dichlorophenol	120-83-2	0,5	0,05			

	2,5-dichlorophenol	583-78-8	0,5	0,05		
	3,4-dichlorophenol	95-77-2	0,5	0,05		
	3,5-dichlorophenol	591-35-5	0,5	0,05		
	Mono Chlorophenol	various	0,5	0,05		
<b>SCCP</b>	SCCP C10-13	85535-84-8	0,4	1	With Reference To ISO/PRF 12010 or EPA 8082 (Modified) And By Gas Chromatography-Mass Spectrometry (GC-MS) Analysis	Banned
<b>Heavy metals</b>	Total Cadmium (Cd)	7440-43-9	0,1	1	Chromium VI: With Reference To EPA 7196A And By Ion Chromatography-Inductively Coupled Argon Plasma-Mass Spectrometry (IC-ICP-MS) Analysis Others: With Reference To EPA 3015A/EPA 3050B&6020A And By Inductively Coupled Argon Plasma-Mass Spectrometry (ICP-M) Analysis	Phase-out
	Total Lead(Pb)	7439-92-1	1	1		
	Total Mercury (Hg)	7439-97-6	0,5	1		
	Total Hexavalent chromium (Cr-VI)	18540-29-9	1	1		

### Beyond Priority 11 group

Category	Name list	CAS	Detection limit		Test Method	STATUS Banned/ phase-out
			Input water waste water (µg/l)	Sludge - textiles raw materials - textile articles - chemicals (mg/kg)		
<b>Dimethylformamide (DMF)</b>	Dimethylformamide (DMF)	68-12-2	10	1	With Reference To EPA 8260B	Phase-out
<b>Organic Solvents</b>	Benzene	71-43-2	1	0,5	GC-MS analysis	Phase-out
	Dimethylacetamide (DMAC)	127-19-5	10	1		
	Toluene	108-88-3	1	1		
	Methyl isobutyl ketone	108-10-1	5	5		
<b>Chlorotoluenes</b>	Benzyl chloride	100-44-7	1	1	Solid-phase extraction and GC-MS/MS analysis	Phase-out
	p-chlorobenzotrifluoride	5216-25-1	1	1		
	α,α,α-trichlorotoluene; benzotrifluoride	98-07-7	1	1		
	α,α-dichlorotoluene (Benzal chloride)	98-87-3	1	1		

<b>Other dyes/CI no</b>	C.I. Direct Black 38	1937-37-7	1	5	Direct analysis by LC-MS	Banned
	C.I. Direct Blue 6	2602-46-2	1	5		
	C.I. Acid Red 26	37-61-53-3	1	5		
	C.I. Basic Red 28	573-58-0	1	5		
	C.I. Basic Violet 14	632-99-5	1	5		
	C.I. Disperse Blue 1	2475-45-8	1	5		
	C.I. Disperse Blue 3	2475-46-9	1	5		
	C.I. Basic Blue 26 (with Michler's Ketone >0,1%)	2580-56-5	1	5		
	C.I. Basic Green 4 (Melachite green chloride)	569-64-2	1	5		
	C.I. Basic Green 4 (Malachite green)	10309-95-2	1	5		
	C.I. Basic Violet 3	548-62-9	1	5		
	C.I. Pigment Black 25	68186-89-0	1	5		
	C.I. Pigment Yellow 157	68610-24-2	1	5		
<b>Disperse (Sensitizing)</b>	Disperse Orange 11	82-28-0	1	15	Direct analysis by LC-MS	Banned
	Disperse Yellow 1	119-15-3	1	15		
	Disperse Blue 102	12222-97-8	1	15		
	Disperse Blue 106	12223-01-7	1	15		
	Disperse Yellow 39	12236-29-2	1	15		
	Disperse Orange 37/59/76	13301-61-6	1	15		
	Disperse Brown 1	23355-64-8	1	15		
	Disperse Orange 1	2581-69-3	1	15		
	Disperse Yellow 3	2832-40-8	1	15		
	Disperse Red 11	2872-48-2	1	15		
	Disperse Red 1	2872-48-2	1	15		
	Disperse Red 17	3179-90-6	1	15		
	Disperse Blue 7	3179-90-6	1	15		
	Disperse Blue 26	3860-63-7	1	15		
	Disperse Yellow 49	54824-37-2	1	15		
	Disperse Blue 35	12222-75-2	1	15		
	Disperse Blue 124	61951-51-7	1	15		
	Disperse Yellow 9	6373-73-5	1	15		
	Disperse Orange 3	730-40-5	1	15		
	Disperse Blue 35	56524-77-7	1	15		
Disperse Orange 149	85136-74-9	1	15			

<b>Other Metals</b>	Arsenic (As)	7440-38-2	0,1	1	ICP-MS analysis	Phase-out
	Beryllium (Be)	7440-41-7	1	1		
	Nickel (Ni)	7440-02-0	5	10		
	Antimony (Sb)	7440-36-0	1	5		
	Cobalt (Co)	7440-48-4	1	10		
	Nickel (Ni)	7440-02-0	5	10		
<b>Others</b>	Formaldehyde	50-00-0	10	15	Derivatization with DNPH and LC-MS/MS analysis	Phase-out