

Date of sampling	29/05/2023
Reporting date	03/06/2023

Audit ID	141863	Audit firm	SGS - ITALIA
Company name	FILTE S.P.A.		
Contact person	LAURA UITI		
Type of tax – tax ID no	02578500361		
Address	VIA FERRARI 20		
Region state province	MODENA		
Town city / village	CAMPOGALLIANO		
Zip / Post code	41011		

Type of wastewater discharge	
Type of wastewater discharge	Indirect Discharge with Pretreatment
Description of the discharge	Discharge to City Pipeline
[If direct discharge] Temperature of receiving water body:	NA

<b>Sampler accreditation certification number (ZDHC):</b>		<b>C74D106820348</b>	
<b>Sampling affiliate</b>		<b>SGS TURKEY</b>	
<b>Sample description</b>			
	<b>Simple</b>	<b>Composite</b>	<b>Comments</b>
(1) Untreated wastewater	NO	YES - 09:00-15:00	NO
(2) Effluent	NO	YES – 09:00-15:00	NO
(3) Sludge	NO	NO	NO
(4) Leachate	NO	NO	NO

Internal description – Final Test Report	
Testing laboratory	SGS Turkey
Internal codification number (report number)	TR2310616-01
Reference sample number (sample ID)	/
Received on	29/05/2023
Analysis carried out from	29/05/2023 to 03/06/2023
Arrival temperature at lab	7,8 °C
Comments	/
Reporting date	03/06/2023

The test results relate to the tested items only.  
Test reports without SGS seal and authorized signatures are invalid.

Issued in Istanbul  
Signed for and on behalf of  
SGS Supervise Gözetme Etüd Kontrol Servisleri A.Ş.

Mesut Akpolat  
Customer Services Supervisor

Murat Öztaş  
Customer Services Team Leader



## Notes

SGS Supervise Gözetme Etüd Kontrol Servisleri A.Ş.-Tüketici ve Perakende Laboratuvarı (Consumer and Retail) operating as ZDHC tests is accredited by TÜRKAK according to AB-690-T and ISO/IEC 17025:2017 standard.

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SGS applied shared risk decision rule.

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. Unless further specified in an individual contract the sample(s) retention time is 30 days.

In this Test Report tests marked (1) are included in the TURKAK Accreditation Scope of this Laboratory.

Summary of test results		
Test items	Untreated wastewater	Effluent
Conventional Parameters and Anions	-	-
Heavy Metals	-	<b>Fulfill aspirational limit</b>
Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers	ND	-
Anti- Microbials & Biocides	ND	-
Chlorinated Parafins	ND	-
Chlorobenzenes & Chlorotoluenes	ND	-
Chlorophenols	ND	-
N,N-di-methylformamide (DMFa)	ND	-
Dyes – Carcinogenic or Equivalent Concern	ND	-
Dyes – Disperse (Allergenic)	ND	-
Dyes – Navy Blue Colourant	ND	-
Flame Retardants	D	-
Glycols / Glycol Ethers	ND	-
Halogenated Solvents	ND	-
Organotin Compounds	ND	-
Other / Miscellaneous Chemicals	D	-
Perfluorinated and Polyfluorinated Chemicals (PFCs)	D	-
Phthalates – including all other esters of ortho-phthalic acid	ND	-
Polycyclic Aromatic Hydrocarbons (PAHs)	ND	-
Restricted Aromatic Amines (Cleavable from Azo-colourants)	D	-
UV Absorbers	ND	-
VOCs	ND	-

**Remark (Indicated in each parameter)**

ND = Not detected

D = Detected

NA = Not applicable

- = Not required to be tested

@ = Maximum holding time exceeded

(T) = handling temperature exceeded

**Test results**

**Wastewater**

**1. Conventional Parameters and Anions**

Test Items	Test method	Limit			Reporting Limit	Result	Unit
		Foundational	Progressive	Aspirational		Effluent	
Wastewater Flowrate	-		-		NA	120 (f)	m <sup>3</sup> /day

**Remark**

ND = Not detected  
 NA = Not applicable  
 - = Not required to be tested  
 (f) = Parameter tested in field  
 (S) = The analysis was subcontracted to xxxxx lab for testing.  
 # = Non accredited parameter  
 \* sampling location of receiving body of water upstream is inaccessible due to the safety issue



## 2. Heavy Metals

Cr (VI): ISO 18412, USEPA 218.6, GB 7467 or IS 3025 (Part 52)

Ba, Se, Sn: USEPA 200.8, USEPA 6010 C, USEPA 6020 A or HJ 700

Sb, As, Cr, Co: ISO 17294, USEPA 200.8, USEPA 6010 C, USEPA 6020 A, HJ 700 or IS 3025 (Part 65)

Cd: ISO 17294, USEPA 200.8, USEPA 6010 C, USEPA 6020 A, GB 7475, HJ 700, IS 3025 (Part 65) or IS 3025 (Part 41) – AAS instrumental method

Cu: ISO 17294, USEPA 200.8, USEPA 6010 C, USEPA 6020 A, GB 7475, HJ 700, IS 3025 (Part 65) or IS 3025 (Part 42) – AAS instrumental method

Pb: ISO 17294, USEPA 200.8, USEPA 6010 C, USEPA 6020 A, GB 7475, HJ 700, IS 3025 (Part 65) or IS 3025 (Part 47) – AAS instrumental method

Ni: ISO 17294, USEPA 200.8, USEPA 6010 C, USEPA 6020 A, GB 11912, HJ 700, IS 3025 (Part 65) or IS 3025 (Part 54) – AAS instrumental method

Ag: ISO 17294, USEPA 200.8, USEPA 6010 C, USEPA 6020 A, GB 11907, HJ 700 or IS 3025 (Part 65)

Zn: ISO 17294, USEPA 200.8, USEPA 6010 C, USEPA 6020 A, GB 7472, GB 7475, HJ 700, IS 3025 (Part 65) or IS 3025 (Part 49) – AAS instrumental method

Hg: ISO 17294, USEPA 200.8 – SIM, USEPA 245.1, USEPA 245.7, USEPA 6020 A – SIM, HJ 597, HJ 694, IS 3025 (Part 48) – Cold vapour AAS only or IS 3025 (Part 65) – SI

Test items	CAS no.				Reporting Limit	Effluent	Unit
		Foundational	Progressive	Aspirational			
Arsenic (As)	Various	Textile and Leather: 0.05	Textile and Leather: 0.01	Textile and Leather: 0.005	0.005	ND	mg/L
Cadmium (Cd)	Various	Textile and Leather: 0.1	Textile and Leather: 0.05	Textile and Leather: 0.01	0.01	ND	mg/L
Mercury (Hg)	Various	Textile and Leather: 0.01	Textile and Leather: 0.005	Textile and Leather: 0.001	0.001	ND	mg/L
Lead (Pb)	Various	Textile and Leather: 0.1	Textile and Leather: 0.05	Textile and Leather: 0.01	0.01	ND	mg/L
Chromium VI (Cr VI)	Various	Textile: 0.05 Leather: 0.15	Textile: 0.005 Leather: 0.05	Textile: 0.001 Leather: 0.02	0.001	ND	mg/L

### Remark

ND = Not detected

NA = Not applicable

- = Not required to be tested

(S) = The analysis was subcontracted to xxxxx lab for testing.

# = Non accredited parameter

\* = Sample and report only for polyester wet processing facilities

## 3. Alkylphenol (AP) & Alkylphenol Ethoxylates (APEOs): including all isomers

NP/OP: With reference to ISO 18857-2 (Modified dichloromethane extraction) or ASTM D7065 (GC-MS or LC-MS(-MS))

NPEO / OPEO: With reference to ISO 18857-2 or ASTM D7742

Test items	CAS no.	Reporting Limit (Textile and Leather)	Result	Unit
			Untreated wastewater	
Octylphenol (OP)	140-66-9/ 1806-26-4/ 27193-28-8	5	ND	µg/L
Nonylphenol (NP)	104-40-5/ 11066-49-2/ 25154- 52- 3/84852-15-3	5	ND	µg/L
Octylphenoethoxylates (OPEOs)	9002-93-1/9036-19-5/68987-90- 6	5	ND	µg/L
Nonylphenoethoxylates (NPEOs)	9016-45-9/26027-38-3/ 37205- 87- 1/68412-54-4/127087-87-0	5	ND	µg/L

**4. Anti- Microbials & Biocides**

o-Phenylphenol (+salts): With reference to BS EN 12673-1999, USEPA 8270 E or Solvent extraction, derivatization with KOH, acetic anhydride followed by GC-MS

Triclosan: With reference to BS EN 12673-1999, USEPA 8270 E or Solvent extraction, derivatization with KOH, acetic anhydride followed by GC-MS

Permethrin: With reference to ISO 14154:2005, USEPA 8270 E, Solvent extraction followed by GC-MS or An alternative method, without derivatization and determination by LC-MS / LC-MS/MS

Test items	CAS no.	Reporting Limit	Result	Unit
			Untreated wastewater	
o-Phenylphenol (+salts)	90-43-7	100	ND	µg/L
Triclosan	3380-34-5	100	ND	µg/L
Permethrin	Various	500	ND	µg/L



### 5. Chlorinated Paraffins

MCCPs: Preparation: With reference to USEPA 3510. Analysis: With reference to ISO 18219-2:2021 or Method for MCCP with GC-MS(NCI) or LC-MS/MS.

SCCPs: Preparation: With reference to USEPA 3510. Analysis: With reference to ISO 12010:2019, ISO 18219-1:2021 or Method for SCCP with GC-MS(NCI) or LC-MS/MS

Test items	CAS no.	Reporting Limit	Result	Unit
			Untreated wastewater	
Short chain chlorinated paraffins (C10-C13)	85535-84-8	25	ND	µg/L
Medium-chain Chlorinated Paraffins (MCCPs) (C14-C17)	85535-85-9	500	ND	µg/L

### 6. Chlorobenzenes & Chlorotoluenes

With reference to USEPA 8260 D, USEPA 8270 E, Purge and Trap, Headspace or Dichloromethane extraction followed by GC-MS

Test items	CAS no.	Reporting Limit (Textile and Leather)	Result	Unit
			Untreated wastewater	
Monochlorobenzenes	108-90-7	0.2	ND	µg/L
1,2-Dichlorobenzene	95-50-1	0.2	ND	µg/L
1,3-Dichlorobenzene	541-73-1	0.2	ND	µg/L
1,4-Dichlorobezene	106-46-7	0.2	ND	µg/L
1,2,3-Trichlorobenzene	87-61-6	0.2	ND	µg/L
1,2,4-Trichlorobenzene	120-82-1	0.2	ND	µg/L
1,3,5-Trichlorobenzene	108-70-3	0.2	ND	µg/L
1,2,3,4-Tetrachlorobenzene	634-66-2	0.2	ND	µg/L
1,2,3,5-Tetrachlorobenzene	634-90-2	0.2	ND	µg/L
1,2,4,5-Tetrachlorobenzene	95-94-3	0.2	ND	µg/L
Pentachlorobenzene	608-93-5	0.2	ND	µg/L
Hexachlorobenzene	118-74-1	0.2	ND	µg/L
2-Chlorotoluene	95-49-8	0.2	ND	µg/L
3-Chlorotoluene	108-41-8	0.2	ND	µg/L
4-Chlorotoluene	106-43-4	0.2	ND	µg/L
2,3-Dichlorotoluene	32768-54-0	0.2	ND	µg/L
2,4-Dichlorotoluene	95-73-8	0.2	ND	µg/L
2,5-Dichlorotoluene	19398-61-9	0.2	ND	µg/L
2,6-Dichlorotoluene	118-69-4	0.2	ND	µg/L
3,4-Dichlorotoluene	95-75-0	0.2	ND	µg/L

3,5-Dichlorotoluene	25186-47-4	0.2	ND	µg/L
2,3,4-Trichlorotoluene	7359-72-0	0.2	ND	µg/L
2,3,6-Trichlorotoluene	2077-46-5	0.2	ND	µg/L
2,4,5-Trichlorotoluene	6639-30-1	0.2	ND	µg/L
2,4,6-Trichlorotoluene	23749-65-7	0.2	ND	µg/L
3,4,5-Trichlorotoluene	21472-86-6	0.2	ND	µg/L
2,3,4,5-Tetrachlorotoluene	76057-12-0	0.2	ND	µg/L
2,3,5,6-Tetrachlorotoluene	29733-70-8	0.2	ND	µg/L
2,3,4,6-Tetrachlorotoluene	875-40-1	0.2	ND	µg/L
Pentachlorotoluene	877-11-2	0.2	ND	µg/L

## 7. Chlorophenols

With reference to BS EN 12673-1999, USEPA 8270 E or Solvent extraction, derivatization with KOH, acetic anhydride followed by GC-MS

Test items	CAS no.	Reporting Limit (Textile and Leather)	Result	Unit
			Untreated wastewater	
2-Chlorophenol	95-57-8	0.5	ND	µg/L
3-Chlorophenol	108-43-0	0.5	ND	µg/L
4-Chlorophenol	106-48-9	0.5	ND	µg/L
2,3-Dichlorophenol	576-24-9	0.5	ND	µg/L
2,4-Dichlorophenol	120-83-2	0.5	ND	µg/L
2,5-Dichlorophenol	583-78-8	0.5	ND	µg/L
2,6-Dichlorophenol	87-65-0	0.5	ND	µg/L
3,4-Dichlorophenol	95-77-2	0.5	ND	µg/L
3,5-Dichlorophenol	591-35-5	0.5	ND	µg/L
2,3,4-Trichlorophenol	15950-66-0	0.5	ND	µg/L
2,3,5-Trichlorophenol	933-78-8	0.5	ND	µg/L
2,3,6-Trichlorophenol	933-75-5	0.5	ND	µg/L
2,4,5-Trichlorophenol	95-95-4	0.5	ND	µg/L
2,4,6-Trichlorophenol	88-06-2	0.5	ND	µg/L
3,4,5-Trichlorophenol	609-19-8	0.5	ND	µg/L
2,3,5,6-Tetrachlorophenol	935-95-5	0.5	ND	µg/L
2,3,4,6-Tetrachlorophenol	58-90-2	0.5	ND	µg/L
2,3,4,5-Tetrachlorophenol	4901-51-3	0.5	ND	µg/L
Pentachlorophenol PCP	87-86-5	0.5	ND	µg/L

## 8. N,N-di-methylformamide (DMFa)

With reference to USEPA 8015 or USEPA 8270 E

Test item	CAS no.	Reporting Limit (Textile)	Result	Unit
			Untreated wastewater	
N,N-di-methylformamide (DMFa)	68-12-2	1000	ND	µg/L

**9. Dyes - Carcinogenic or Equivalent Concern**

With reference to Liquid extraction followed by LC-MS

Test items	CAS no.	Reporting Limit (Textile and Leather)	Result	Unit
			Untreated wastewater	
C.I. Direct Black 38	1937-37-7	500	ND	µg/L
C.I. Direct Blue 6	2602-46-2	500	ND	µg/L
C.I. Acid Red 26	3761-53-3	500	ND	µg/L
C.I. Basic Red 9	569-61-9	500	ND	µg/L
C.I. Direct Red 28	573-58-0	500	ND	µg/L
C.I. Basic Violet 14	632-99-5	500	ND	µg/L
C.I. Disperse Blue 1	2475-45-8	500	ND	µg/L
C.I. Disperse Blue 3	2475-46-9	500	ND	µg/L
C.I. Basic Blue 26 (with Michler's Ketone > 0.1%)	2580-56-5	500	ND	µg/L
C.I. Basic Green 4 (malachite green chloride)	569-64-2	500	ND	µg/L
C.I. Basic Green 4 (malachite green oxalate)	2437-29-8	500	ND	µg/L
C.I. Basic Green 4 (malachite green)	10309-95-2	500	ND	µg/L
Disperse Orange 11	82-28-0	500	ND	µg/L
Basic violet 3 with >0.1% of Michler's Ketone*	548-62-9	500	ND	µg/L
C.I. Acid Violet 49	1694-09-3	500	ND	µg/L

\*Reported concentration refers to the dye part only

**10. Dyes - Disperse (Allergenic)**

With reference to Liquid extraction followed by LC-MS

Test Items	CAS no.	Reporting Limit (Textile)	Result	
			Untreated wastewater	Unit
Disperse Yellow 1	119-15-3	50	ND	µg/L
Disperse Blue 102	12222-97-8	50	ND	µg/L
Disperse Blue 106	12223-01-7	50	ND	µg/L
Disperse Yellow 39	12236-29-2	50	ND	µg/L
Disperse Orange 37/59/76	13301-61-6	50	ND	µg/L
Disperse Brown 1	23355-64-8	50	ND	µg/L
Disperse Orange 1	2581-69-3	50	ND	µg/L
Disperse Yellow 3	2832-40-8	50	ND	µg/L
Disperse Red 11	2872-48-2	50	ND	µg/L
Disperse Red 1	2872-52-8	50	ND	µg/L
Disperse Red 17	3179-89-3	50	ND	µg/L
Disperse Blue 7	3179-90-6	50	ND	µg/L
Disperse Blue 26	3860-63-7	50	ND	µg/L
Disperse Yellow 49	54824-37-2	50	ND	µg/L
Disperse Blue 35	12222-75-2	50	ND	µg/L
Disperse Blue 124	61951-51-7	50	ND	µg/L
Disperse Yellow 9	6373-73-5	50	ND	µg/L
Disperse Orange 3	730-40-5	50	ND	µg/L
Disperse Blue 35	56524-77-7	50	ND	µg/L

**11. Dyes - Navy Blue Colourant**

With reference to Liquid extraction followed by LC-MS

Test Items	CAS no.	Reporting Limit (Textile and Leather)	Result	
			Untreated wastewater	Unit
Component 1: C39H23Cl-CrN7O12S 2Na	118685-33-9	500	ND	µg/L
Component 2: C46H-30CrN10O20S2 3Na	Not Allocated	500	ND	µg/L

**12. Flame retardants**

Boric acid, Diboron trioxide, Disodium octaborate, Disodium tetraborate anhydrous, Tetraboron disodium heptaoxide, hydrate:

ISO 17294, USEPA 6010 C, USEPA 6020 A, HJ 700 or IS 3025 (Part 65)

Others: With reference to ISO 22032, USEPA 527, USEPA 8270 E, USEPA 8321 B or Dichloromethane extraction followed by GC-MS or LC-MS(-MS)

Test Items	CAS no.	Reporting Limit	Result	Unit
			Untreated wastewater	
Decabromodiphenyl ether (DecaBDE)	1163-19-5	25	ND	µg/L
Pentabromodiphenyl ether (PentaBDE)	32534-81-9	25	ND	µg/L
Octabromodiphenyl ether (OctaBDE)	32536-52-0	25	ND	µg/L
Tris(1-aziridinylphosphine oxide) (TEPA)	545-55-1	25	ND	µg/L
Polybromobiphenyls (PBBs)	59536-65-1	25	ND	µg/L
Tris(2,3-dibromopropyl phosphate) (TRIS)	126-72-7	25	ND	µg/L
Tetrabromobisphenol A (TBBPA)	79-94-7	25	ND	µg/L
Bis(2,3-dibromopropyl) phosphate	5412-25-9	25	ND	µg/L
Hexabromocyclododecane (HBCDD)	3194-55-6	25	ND	µg/L
2,2-Bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0	25	ND	µg/L
Tris-(2-chloro-1-methylethyl) phosphate (TCPP)	13674-84-5	25	ND	µg/L
Decabromobiphenyl (DecaBB)	13654-09-6	25	ND	µg/L
Dibromobiphenyls (DiBB)	Multiple	25	ND	µg/L
Octabromobiphenyls (OctaBB)	Multiple	25	ND	µg/L
Dibromopropylether	21850-44-2	25	ND	µg/L
Heptabromodiphenyl ether (HeptaBDE)	68928-80-3	25	ND	µg/L
Hexabromodiphenyl ether (HexaBDE)	36483-60-0	25	ND	µg/L
Monobromobiphenyls (MonoBB)	Multiple	25	ND	µg/L
Monobromodiphenylethers (MonoBDEs)	Multiple	25	ND	µg/L
Nonabromobiphenyls (NonaBB)	Multiple	25	ND	µg/L
Nonabromodiphenyl ether (NonaBDE)	63936-56-1	25	ND	µg/L
Tetrabromodiphenyl ether (TetraBDE)	40088-47-9	25	ND	µg/L
Tribromodiphenylethers (TriBDEs)	Multiple	25	ND	µg/L
Boric acid	10043-35-3 11113-50-1	100*	200*(1002)**	µg/L
Diboron trioxide	1303-86-2	100*	200*(564)**	µg/L
Disodium octaborate	12008-41-2	100*	200*(1192)**	µg/L

Disodium tetraborate anhydrous	1303-96-4 1330-43-4	100*	200*(815)**	µg/L
Tetraboron disodium heptaoxide, hydrate	12267-73-1	100*	200*(937)**	µg/L
Tris(2-chloroethyl) phosphate (TCEP)	115-96-8	25	ND	µg/L
Tris(1,3-dichloro-isopropyl) phosphate (TDCP)	13674-87-8	25	ND	µg/L

\* Limit refers to elemental boron, not the salt.

\*\*Result in term of elemental boron (Result in term of the corresponding boron salt)

**13. Glycols/Glycol Ethers**

With reference to USEPA 8270 E or Liquid extraction followed by LC-MS or GC-MS

Test Items	CAS no.	Reporting Limit (Textile and Leather)	Result	Unit
			Untreated wastewater	
Bis(2-methoxyethyl)-ether	111-96-6	50	ND	µg/L
2-ethoxyethanol	110-80-5	50	ND	µg/L
2-ethoxyethyl acetate	111-15-9	50	ND	µg/L
Ethylene glycol dimethyl ether	110-71-4	50	ND	µg/L
2-methoxyethanol	109-86-4	50	ND	µg/L
2-methoxyethylacetate	110-49-6	50	ND	µg/L
2-methoxypropylacetate	70657-70-4	50	ND	µg/L
Triethylene glycol dimethyl ether	112-49-2	50	ND	µg/L

**14. Halogenated solvents**

With reference to USEPA 8260 D, Purge and Trap or Headspace followed by GC-MS

Test Items	CAS no.	Reporting Limit (Textile and Leather)	Result	Unit
			Untreated wastewater	
1,2-Dichloroethane	107-06-2	1	ND	µg/L
Methylene chloride	75-09-2	1	ND	µg/L
Trichloroethene	79-01-6	1	ND	µg/L
Tetrachloroethene	127-18-4	1	ND	µg/L

**15. Organotin compounds**

TeET:

With reference to ISO 17353

Others:

 With reference to ISO 17353 or Derivatization with  $\text{NaB}(\text{C}_2\text{H}_5)_4$  followed by GC-MS

Test Items	CAS no.	Reporting Limit (Textile and Leather)	Result	Unit
			Untreated wastewater	
Tricyclohexyltin (TCyHT)	Various	0.01	ND	µg/L
Tripropyltin (TPT)	Various	0.01	ND	µg/L
Dipropyltin compounds (DPT)	Various	0.01	ND	µg/L
Tetrabutyltin compounds (TeBT)	Various	0.01	ND	µg/L
Tetraoctyltin compounds (TeOT)	Various	0.01	ND	µg/L
Tetraethyltin Compounds (TeET)	Various	0.01	ND	µg/L
Mono-, di-and tri-octyltin derivatives	Various	0.01	ND	µg/L
Monooctyltin (MOT)	15231-57-9	0.01	ND	µg/L
Diocetyl tin (DOT)	94410-05-6, 12531-44-4	0.01	ND	µg/L
Triocetyl tin (TOT)	Various	0.01	ND	µg/L
Mono-, di-and tri-methyltin derivatives	Various	0.01	ND	µg/L
Monomethyltin (MMT)	Various	0.01	ND	µg/L
Dimethyltin (DMT)	Various	0.01	ND	µg/L
Trimethyltin (TMT)	Various	0.01	ND	µg/L
Mono-, di-and tri-butyltin derivatives	Various	0.01	ND	µg/L
Monobutyltin (MBT)	1118-46-3, 78763-54-9	0.01	ND	µg/L
Dibutyltin (DBT)	1002-53-5	0.01	ND	µg/L
Tributyltin (TBT)	56573-85-4	0.01	ND	µg/L
Mono-, di-and tri-phenyltin derivatives	Various	0.01	ND	µg/L
Monophenyltin (MPHT)	Various	0.01	ND	µg/L
Diphenyltin (DPHT)	Various	0.01	ND	µg/L
Triphenyltin (TPHT)	892-20-6, 668-34-8	0.01	ND	µg/L



**16. Other/Miscellaneous Chemicals**

AEEA [2-(2-aminoethylamino) ethanol]: With reference to Liquid extraction followed by LC-MS/MS

Bisphenol A: With reference to Liquid extraction followed by LC-MS

Thiourea: With reference to Liquid extraction followed by LC-MS

Quinoline: With reference to Liquid extraction followed by LC-MS

Borate, zinc salt: ISO 17294, USEPA 6010 C, USEPA 6020 A, HJ 700 or IS 3025 (Part 65)

Test Items	CAS no.	Reporting Limit (Textile)	Result	Unit
			Untreated wastewater	
AEEA [2-(2-aminoethylamino) ethanol]	111-41-1	500	ND	µg/L
Bisphenol A	80-05-7	10	ND	µg/L
Thiourea	62-56-6	50	ND	µg/L
Quinoline	91-22-5	50	ND	µg/L
Borate, zinc salt	12767-90-7	100*	B: 200* (317)** Zn: 100* (317)**	µg/L

\* Limit refers to boron and zinc individually, not the salt.

\*\* Result in term of elemental boron / zinc (Result in term of the corresponding boron / zinc salt)

**17. Perfluorinated and Polyfluorinated Chemicals (PFCs)**

PFCs:

With reference to USEPA 537:2020 followed by LC-MS(-MS)

FTOH:

With reference to BS EN 12673-1999, USEPA 8270 E or Derivatization with acetic anhydride followed by GC-MS

Test Items	CAS no.	Reporting Limit (Textile and Leather)	Result	Unit
			Untreated wastewater	
Perfluoro-octane-sulfonic acid (PFOS)*	1763-23-1	0.01	0,04	µg/L
Perfluoro-octanoic acid (PFOA)**	335-67-1	0.01	0,02	µg/L
Perfluoro-octane-sulfon-amide (PFOSA)	754-91-6	0.01	ND	µg/L
1H,1H,2H,2H-Perfluorodecyl acrylate (8:2 FTA)	27905-45-9	1	ND	µg/L
1H,1H,2H,2H-Perfluorodecanol (8:2 FTOH)	678-39-7	1	ND	µg/L
N-Methyl-perfluoro-octane-sulfon-amido-ethanol (N-Me-FOSE)	24448-09-7	0.01	ND	µg/L
N-Ethyl-Perfluoro-octane-sulfon-amido-ethanol (N-Et-FOSE)	1691-99-2	0.01	ND	µg/L
N-Methyl-perfluoro-octane-sulfon-amide (N-Me-FOSA)	31506-32-8	0.01	ND	µg/L
N-Ethyl-perfluoro-octane-sulfon-amide (N-Et-FOSA)	4151-50-2	0.01	ND	µg/L
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	39108-34-4	1	ND	µg/L
Methyl Perfluorooctanoate (Me-PFOA)	376-27-2	1	ND	µg/L
Ethyl Perfluorooctanoate (Et-PFOA)	3108-24-5	1	ND	µg/L
8:2 Fluorotelomer methacrylate (8:2 FTMA)	1996-88-9	1	ND	µg/L

\* PFOS refer to its salts/derivative including PFOS-K (CAS No.: 2795-39-3), PFOS-Li (CAS No.: 29457-72-5), PFOS-NH<sub>4</sub> (CAS No.: 29081-56-9), PFOS-NH(OH)<sub>2</sub> (CAS No.: 70225-14-8), PFOS-N(C<sub>2</sub>H<sub>5</sub>)<sub>4</sub> (CAS No.: 56773-42-3) and POSF (CAS No.: 307-35-7)

\*\* PFOA refer to its salts including PFOA-Na (CAS No.: 335-95-5), PFOA-K (CAS No.: 2395-00-8), PFOA-Ag (CAS No.: 335-93-3), PFOA-F (CAS No.: 335-66-0) and APFO (CAS No.: 3825-26-1)

**18. Phthalates – including all other esters of ortho-phthalic acid**

With reference to USEPA 8270 E, ISO 18856 or Dichloromethane extraction followed by GC-MS

Test Items	CAS no.	Reporting Limit (Textile and Leather)	Result	Unit
			Untreated wastewater	
Di-2-ethylhexyl phthalate (DEHP)	117-81-7	10	ND	µg/L
Dimethoxyethyl phthalate (DMEP)	117-82-8	10	ND	µg/L
Di-n-octyl phthalate (DNOP)	117-84-0	10	ND	µg/L
Di-iso-decyl phthalate (DIDP)	26761-40-0	10	ND	µg/L
Di-iso-nonyl phthalate (DINP)	28553-12-0	10	ND	µg/L
Di-n-hexyl phthalate (DnHP)	84-75-3	10	ND	µg/L
Dibutyl phthalate (DBP)	84-74-2	10	ND	µg/L
Butyl benzyl phthalate (BBP)	85-68-7	10	ND	µg/L
Dinonyl phthalate (DNP)	84-76-4	10	ND	µg/L
Diethyl phthalate (DEP)	84-66-2	10	ND	µg/L
Di-n-propyl phthalate (DPRP)	131-16-8	10	ND	µg/L
Di-iso-butyl phthalate (DIBP)	84-69-5	10	ND	µg/L
Di-cyclohexyl phthalate (DCHP)	84-61-7	10	ND	µg/L
Di-iso-octyl phthalate (DIOP)	27554-26-3	10	ND	µg/L
1,2-benzenedicarboxylic acid, di-C7-11-branched and linearalkyl esters (DHNUP)	68515-42-4, 68515-50-4	10	ND	µg/L
1,2-benzenedicarboxylic acid, di-C6-8 branched and linearalkyl esters, C7-rich (DIHP)	71888-89-6, 84777-06-0	10	ND	µg/L
Di-n-pentylphthalates	131-18-0	10	ND	µg/L
Diisopentylphthalates	605-50-5	10	ND	µg/L

**19. Polycyclic aromatic hydrocarbons (PAHs)**

With reference to DIN 38407-39, USEPA 8270 E or Solvent extraction followed by GC-MS

Test Items	CAS no.	Reporting Limit (Textile and Leather)	Result	Unit
			Untreated wastewater	
Benzo(a)pyrene (BaP)	50-32-8	1	ND	µg/L
Anthracene	120-12-7	1	ND	µg/L
Pyrene	129-00-0	1	ND	µg/L
Benzo(ghi)perylene	191-24-2	1	ND	µg/L
Benzo(e)pyrene	192-97-2	1	ND	µg/L
Indeno (1,2,3-cd)pyrene	193-39-5	1	ND	µg/L
Benzo(j)fluoranthene	205-82-3	1	ND	µg/L
Benzo(b)fluoranthene	205-99-2	1	ND	µg/L
Fluoranthene	206-44-0	1	ND	µg/L
Benzo(k)fluoranthene	207-08-09	1	ND	µg/L
Acenaphthylene	208-96-8	1	ND	µg/L
Chrysene	218-01-9	1	ND	µg/L
Dibenz(a,h)anthracene	53-70-3	1	ND	µg/L
Benzo(a)anthracene	56-55-3	1	ND	µg/L
Acenaphthene	83-32-9	1	ND	µg/L
Phenanthrene	85-01-8	1	ND	µg/L
Fluorene	86-73-7	1	ND	µg/L
Naphthalene	91-20-3	1	ND	µg/L

**20. Restricted Aromatic Amines (Cleavable from Azo-colourants)**

With reference to USEPA 8270 E or Reduction step with sodium dithionite, solvent extraction followed by GC-MS and LC-MS/MS

Test Items	CAS no.	Reporting Limit (Textile and Leather)	Result	Unit
			Untreated wastewater	
4,4'-Methylene-bis(2-chloroaniline)	101-14-4	0.1	ND	µg/L
4,4'-Diaminodiphenylmethane	101-77-9	0.1	ND	µg/L
4,4'-Oxydianiline	101-80-4	0.1	ND	µg/L
4-Chloroaniline	106-47-8	0.1	0,2	µg/L
3,3'-Dimethoxybenzidine	119-90-4	0.1	ND	µg/L
3,3'-Dimethylbenzidine	119-93-7	0.1	ND	µg/L
p-Cresidine	120-71-8	0.1	ND	µg/L
2,4,5-Trimethylaniline	137-17-7	0.1	ND	µg/L
4,4'-Thiodianiline	139-65-1	0.1	ND	µg/L
4-Aminoazobenzene	60-09-3	0.1	ND	µg/L
2,4-Diaminoanisoole	615-05-4	0.1	ND	µg/L
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	0.1	ND	µg/L
2,6-Xylidine	87-62-7	0.1	ND	µg/L
o-Anisidine	90-04-0	0.1	ND	µg/L
2-Naphthylamine	91-59-8	0.1	ND	µg/L
3,3'-Dichlorobenzidine	91-94-1	0.1	ND	µg/L
4-Aminobiphenyl	92-67-1	0.1	ND	µg/L
Benzidine	92-87-5	0.1	ND	µg/L
o-Toluidine	95-53-4	0.1	ND	µg/L
2,4-Xylidine	95-68-1	0.1	ND	µg/L
4-Chloro-o-toluidine	95-69-2	0.1	ND	µg/L
2,4-Diaminotoluene	95-80-7	0.1	ND	µg/L
o-Aminoazotoluene	97-56-3	0.1	ND	µg/L
5-Nitro-o-toluidine	99-55-8	0.1	ND	µg/L
2-Naphthylammoniumacetate	553-00-4	0.1	ND	µg/L
2,4,5-trimethylaniline hydrochloride	21436-97-5	0.1	ND	µg/L
4-chloro-o-toluidinium chloride	3165-93-3	0.1	ND	µg/L
4-methoxy-m-phenylene diammonium sulphate; 2,4-diaminoanisoole sulphate	39156-41-7	0.1	ND	µg/L

## 21. UV Absorbers

With reference to ISO 22032, USEPA 527, USEPA 8270 E, USEPA 8321 B or Dichloromethane extraction followed by GC-MS or LC-MS(-MS)

Test Items	CAS no.	Reporting Limit (Textile)	Result	Unit
			Untreated wastewater	
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl) phenol (UV-350)	36437-37-3	100	ND	µg/L
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	100	ND	µg/L
2-benzotriazol-2-yl-4,6-di-tertbutylphenol (UV-320)	3846-71-7	100	ND	µg/L
2,4-Di-tert-butyl-6-(5-chlorobenzotriazole-2-yl) phenol (UV-327)	3864-99-1	100	ND	µg/L

## 22. Volatile organic compounds (VOCs)

Benzene: With reference to ISO 11423-1, ISO 20595, USEPA 8260 D, Purge and Trap or Headspace followed by GC-MS

m-cresol / o-cresol / p-cresol: With reference to BS EN 12637-1999, ISO 11423-1, USEPA 8270 E, Purge and Trap or Headspace followed by GC-MS

Xylene: With reference to ISO 11423-1, USEPA 8260 D, Purge and Trap or Headspace followed by GC-MS

Toluene: With reference to ISO 11423-1, USEPA 8260 D or HJ 1067

Test Items	CAS no.	Reporting Limit	Result	Unit
			Untreated wastewater	
Benzene	71-43-2	Textile and Leather: 1	ND	µg/L
Xylene	1330-20-7	Textile: 1	ND	µg/L
o-cresol	95-48-7	Textile and Leather: 1	ND	µg/L
p-cresol	106-44-5	Textile and Leather: 1	ND	µg/L
m-cresol	108-39-4	Textile and Leather: 1	ND	µg/L
Toluene	108-88-3	Textile: 1 (Sample and Report only for mock leather)	ND	µg/L

### Remark

ND = Not detected

NA = Not applicable

- = Not required to be tested

(S) = The analysis was subcontracted to xxxxx lab for testing.

# = Non accredited parameter



## SAMPLING PHOTOS

### UNTREATED WASTEWATER

GPS Data: 41°04'26" N, 28°64'01" E

#### SAMPLING LOCATION, CLOSE-UP VIEW



#### SAMPLING LOCATION, FAR VIEW



### EFFLUENT

GPS Data: 41°04'25" N, 28°64'00" E

#### SAMPLING LOCATION, CLOSE-UP VIEW



#### SAMPLING LOCATION, FAR VIEW





**REGULATORY REQUIREMENTS TURKEY LOCAL DISCHARGE REGULATION  
TEXTILE INDUSTRY WASTEWATER DISCHARGE STANDARDS OF THE RECEIVING ENVIRONMENT**

Table 4: Textile Industry (Wool Washing, Finishing, weaving and etc.)			
PARAMETER	UNIT	COMPOSITE SAMPLE 2 HOURS	COMPOSITE SAMPLE 24 HOURS
CHEMICAL OXYGEN DEMAND (COD)	(mg/L)	400	300
SUSPENDED SOLIDS	(mg/L)	400	300
AMMONIUM NITROGEN (NH4-N)	(mg/L)	5	-
FREE CHLORINE	(mg/L)	0.3	-
TOTAL CHROMIUM	(mg/L)	2	1
SULFUR (S <sup>2-</sup> )	(mg/L)	0.1	-
SULPHITE	(mg/L)	1	-
OIL AND GREASE	(mg/L)	200	100
FISH BIOTEST		4	3
pH		6...9	6...9
COLOR	(Pt-Co)	280	260

\*\*\* End of Report \*\*\*