

## SOFTLINES WASTEWATER TESTING

## TEST REPORT

Number: TURA230102769

Date of sampling	27/09/2023
Reporting Date	05/10/2023

Audit ID	153947	Audit firm	INTERTEK - TURKEY
Company name	ZAFER TEKSTİL SANAYİ VE TİCARET A.Ş.		
Contact person	MEHMET ÖZGEREN		
Type of tax - tax ID no	9960017147		
Address	4. ORGANİZE SANAYİ BÖLGESİ 83407. CADDE NO:4		
Region state province	GAZİANTEP		
Town city / village	BASPINAR		
Zip/Post code	27630		
Country	TURKEY		

Type of wastewater discharge	
ETP	Own ETP
Pre - treatment	YES
Equalization tank	YES
Type of waste discharge	Indirect discharge
Description of discharge	Discharges to Gaziantep 4. Organized Industrial Zone ETP
[If direct discharge] ambient temperature of receiving water body:	N/A
Average total industrial wastewater generated:	2000 m3/day

Sludge	C
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Sampler accreditation certification number (ZDHC):		ZDHC-A-22-E-C001068-R21DE-56D90	
Sample description	Simple	Composite	Comments
(1) Untreated wastewater (BT)	X	[Grey, composite sample at; 10:00, 11:00, 12:00, 13:00, 14:00, 15:00, 16:00] [Sampling location: Latitude 37.83299, Longitude 37.22269]	X
(2) Treated wastewater (AT)	X	[Yellow ,composite sample at; 10:10, 11:10, 12:10, 13:10, 14:10, 15:10, 16:10] [Sampling location: Latitude 37.22254, Longitude 37.22254]	X
(3) Sludge	X	X	X

Local Legal Data	
Local Legal Standard name [a]	N/A
Parameters (ZDHC WWG V2) exceeded local regulation:	N/A
Discharge permit provided:	N/A

Internal description – Intertek Lab Issuing Final Test Report	
Internal codification number	N/A
Reference sample number	TURA230102769
Received on	28/09/2023
Analysis carried out from	28/09/2023 to 05/10/2023
Arrival Temperature at Lab	6.4 °C
Comments	Samples received within 17 hours.
Reporting date	05/10/2023

Internal description – Intertek Subcontracted Lab	
Internal codification number	Not Applicable
Reference sample number	Not Applicable
Received on	Not Applicable
Analysis carried out from	Not Applicable
Arrival Temperature at Lab	Not Applicable
Comments	Not Applicable
Reporting date	Not Applicable

# SOFTLINES WASTEWATER TESTING

## TEST REPORT

Number: TURA230102769

Summary of test results		
Wastewater Test items	Sample 1 (Before treatment)	Sample 2 (After treatment)
Global effluent parameters ZDHC	N/A	N/A
Heavy metals	N/A	ND
Alkylphenols (APs) & Alkylphenol ethoxylates (APEOs)	ND	N/A
Chlorobenzenes and Chlorotoluenes	ND	N/A
Chlorophenols	ND	N/A
Azo dyes	ND	N/A
Carcinogenic dyes	ND	N/A
Disperse dyes	ND	N/A
Flame retardants	ND	N/A
Glycols	ND	N/A
Chlorinated solvents	ND	N/A
Organotin compounds	ND	N/A
Phthalates	ND	N/A
Perfluorinated chemicals (PFCs)	ND	N/A
Polycyclic aromatic hydrocarbons (PAHs)	ND	N/A
Volatile organic compounds (VOCs)	ND	N/A
Anti - Microbials & Biocides	ND	N/A
Chlorinated parafins	ND	N/A
N,N-di-methylformamide (DMFa)	ND	N/A
Dyes-Navy Blue Colourant	ND	N/A
Other/Miscellaneous Chemicals	ND	N/A
UV Absorbers	ND	N/A

Sludge Test items	Sample
Sludge Parameters – Step 1 - Metals	D
Sludge Parameters – Step 1 - Anions	ND
Sludge Parameters - Step 1 - Conventional	D
Sludge Parameters - Step 1 - MRSL - Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers	ND
Sludge Parameters - Step 1 - MRSL - Polycyclic Aromatic Hydrocarbons (PAHs)	ND
Sludge Parameters - Step 1 - MRSL – Chlorotoluenes	ND
Sludge Parameters - Step 2 - Metals	ND

### Remark (Indicated in each parameter)

ND = Not detected

D = Detected

\* = See remark

@ = Maximum holding time exceeded, red flag in the ZDHC Gateway – Wastewater Module. Probable error in results due to the holding time.

NA = Not applicable

- = Did not perform

(f)= parameter tested in field

(T)= handling temperature exceeded

(S) = The analysis was subcontracted to Intertek [Intertek Turkey Food Laboratory] for testing.

(^)= Borate, zinc salt would report ND when total boron or total zinc less than 100 µg/L.

# = Non accredited parameter

[a] = The local legal standard name and legal standard no. is referenced to discharge permit (or contractual agree by CETP) that provided

For and on behalf of

Intertek Testing Service Turkey Limited

Prepared and Checked By :



Eralp Anil  
Environmental Engineer  
For Intertek Testing Services Turkey

Authorized By :



Kerem Can  
Consumer Products Operational Excellence Director  
For Intertek Testing Services Turkey

## Test results

## 1. Global effluent parameters

Parameters	Test method	Limit			Legal Requirement	Reporting Limit	Result Sample	Unit
		Foundational	Progressive	Aspirational			Before Treatment	
Temperature	SM 2550 B	35°C	30°C	25°C	N/A	N/A	N/A	°C
Temperature difference [°C]	SM 2550 B	Δ+15°C	Δ+10°C	Δ+5°C	N/A	N/A	N/A	°C
TSS	SM 2540 D	50 mg/L	15 mg/L	5 mg/L	N/A	5 mg/L	N/A	mg/L
COD	SM 5220 D	150 mg/L	80 mg/L	40 mg/L	N/A	40 mg/L	N/A	mg/L
Total-N	IS 3025 (Sum of SM4500-Norg B, SM4500-NO2- B, SM4500-NO3- E)	20 mg/L	10 mg/L	5 mg/L	N/A	5 mg/L	N/A	mg/L
pH	SM 4500-H+	6-9	6-9	6-9	N/A	N/A	N/A	
Colour [m-1]	ISO 7887-B	7;5;3	5;3;2	2;1;1	N/A	N/A	N/A	
BOD <sub>5</sub>	SM 5210-B	30 mg/L	15 mg/L	5 mg/L	N/A	5 mg/L	N/A	mg/L
Ammonium-N	SM 4500 NH3 B& F	10 mg/L	1 mg/L	0.5 mg/L	N/A	0.5 mg/L	N/A	mg/L
Total-P	EPA3015 A& ISO11885	3 mg/L	0.5 mg/L	0.1 mg/L	N/A	0.1 mg/L	N/A	mg/L
AOX	ISO 9562	3 mg/L	0.5 mg/L	0.1 mg/L	N/A	0.1 mg/L	N/A	mg/L
Oil and grease	USEPA 1664	10 mg/L	2 mg/L	0.5 mg/L	N/A	0.5 mg/L	N/A	mg/L
Phenol	SM 5530-B& C	0.5 mg/L	0.01 mg/L	0.001 mg/L	N/A	0.001 mg/L	N/A	mg/L
E. Coli <sup>(S)</sup>	ISO 9308-1	126 [MPN/100-ml]	126 [MPN/100-ml]	126 [MPN/100-ml]	N/A	126 [MPN/100-ml]	N/A	[MPN/100-ml]
Foam	N/A	Not visible	Not visible	Not visible	N/A	N/A	N/A	
Cyanide	SM 4500-CN-C&E	0.2 mg/L	0.1 mg/L	0.05 mg/L	N/A	0.05 mg/L	N/A	mg/L
Sulfide	SM 4500-S2-D	0.5 mg/L	0.05 mg/L	0.01 mg/L	N/A	0.01 mg/L	N/A	mg/L
Sulfite	SM 4500 SO32 C	2 mg/L	0.5 mg/L	0.2 mg/L	N/A	0.2 mg/L	N/A	mg/L
Dissolved Oxygen (DO)	SM 4500-O-G	Sample and report only			N/A	N/A	N/A	mg/L
Total Chlorine	ISO 7393-2	Sample and report only			N/A	0.2 mg/L	N/A	mg/L
Total Dissolved Solids (TDS)	SM 2540-C	Sample and report only			N/A	10 mg/L	N/A	mg/L
Chloride	SM 4500-Cl C	Sample and report only			N/A	10 mg/L	N/A	mg/L
Sulfate	SM 4500 SO4 E	Sample and report only			N/A	10 mg/L	N/A	mg/L
Wastewater Flowrate	N/A	Report only			N/A	N/A	N/A	m <sup>3</sup> /day

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## 2. Heavy metals

Others; With reference to In House Testing Method "IHTM AL.2.439" (Modified from EPA 3015A ve EPA 6020B) followed by ICP-MS analysis.

Chromium (VI); With reference to ISO 18412 followed by spectrophotometric analysis.

Heavy metals	CAS no.	Limit			Reporting limit (mg/L)	Legal Requirement	Result Sample 2 (After treatment)	Unit
		Foundational	Progressive	Aspirational				
Arsenic (As)	Various	0.05 mg/L	0.01 mg/L	0.005 mg/L	0.005 mg/L	N/A	ND	mg/L
Cadmium (Cd)	Various	0.1 mg/L	0.05 mg/L	0.01 mg/L	0.01 mg/L	N/A	ND	mg/L
Mercury (Hg)	Various	0.01 mg/L	0.005 mg/L	0.001 mg/L	0.001 mg/L	N/A	ND	mg/L
Lead (Pb)	Various	0.1 mg/L	0.05 mg/L	0.01 mg/L	0.01 mg/L	N/A	ND	mg/L
Antimony (Sb)	Various	0.1 mg/L	0.05 mg/L	0.01 mg/L	0.01 mg/L	N/A	N/A	mg/L
Cobalt (Co)	Various	0.05 mg/L	0.02 mg/L	0.01 mg/L	0.01 mg/L	N/A	N/A	mg/L
Nickel (Ni)	Various	0.2 mg/L	0.1 mg/L	0.05 mg/L	0.05 mg/L	N/A	N/A	mg/L
Silver (Ag)	Various	0.1 mg/L	0.05 mg/L	0.005 mg/L	0.005 mg/L	N/A	N/A	mg/L
Copper (Cu)	Various	1 mg/L	0.5 mg/L	0.25 mg/L	0.25 mg/L	N/A	N/A	mg/L
Zinc (Zn)	Various	5.0 mg/L	1.0 mg/L	0.5 mg/L	0.5 mg/L	N/A	N/A	mg/L
Total Chromium	Various	0.2 mg/L	0.1 mg/L	0.05 mg/L	0.05 mg/L	N/A	N/A	mg/L
Chromium VI (Cr VI)	Various	0.05 mg/L	0.005 mg/L	0.001 mg/L	0.001 mg/L	N/A	ND	mg/L
Barium (Ba)	Various	Sample and Report only			0.001 mg/L	N/A	N/A	mg/L
Selenium (Se)	Various	Sample and Report only			0.001 mg/L	N/A	N/A	mg/L
Tin (Sn)	Various	Sample and Report only			0.001 mg/L	N/A	N/A	mg/L

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### 3. Alkylphenols (APs) & AlkylphenolEthoxylates (APEOs)

APs&APEOs (n=1,2): With reference to In House Testing Method, "IHTM AL.2.421" (modified from ISO 18857-1, ISO 18857-2, ASTM D7065)

ZDHC Wastewater Guidelines dichloromethane extraction GC-MS analysis.

APs&APEOs (n>2): With reference to In House Testing Method "IHTM AL.2.421" (modified from ISO 18254-1) LC-MS-MS analysis.

Alkylphenols (APs) & Alkylphenoethoxylates (APEOs)	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
Octylphenol (OP), mixed isomers	140-66-9/ 1806-26-4/ 27193-28-8	0.005	0.005	ND	ppm
Nonylphenol (NP), mixed isomers	104-40-5/ 11066-49-2/ 25154-52-3/ 84852-15-3	0.005	0.005	ND	ppm
Octylphenoethoxylates (OPEOs)	9002-93-1; 9036-19-5; 68987-90-6	0.005	0.005	ND	ppm
Nonylphenoethoxylates (NPEOs)	9016-45-9/26027-38-3/ 37205-87-1/ 68412-54-4/127087-87-0	0.005	0.005	ND	ppm

### 4. Chlorobenzenes & Chlorotoluenes

With reference to In House Testing Method "IHTM AL.2.421" (modified from EPA 3510C, EPA 8260D, EPA 8270E) ZDHC Wastewater Guidelines Dichloromethane extraction followed by GC-MS analysis.

Chlorobenzenes & Chlorotoluenes	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
Chlorobenzene	108-90-7	0.0002	0.0002	ND	ppm
1,2-Dichlorobenzene	95-50-1	0.0002	0.0002	ND	ppm
1,3-Dichlorobenzene	541-73-1	0.0002	0.0002	ND	ppm
1,4-Dichlorobenzene	106-46-7	0.0002	0.0002	ND	ppm
1,2,3-Trichlorobenzene	87-61-6	0.0002	0.0002	ND	ppm
1,2,4-Trichlorobenzene	120-82-1	0.0002	0.0002	ND	ppm
1,3,5-Trichlorobenzene	108-70-3	0.0002	0.0002	ND	ppm
1,2,3,4-Tetrachlorobenzene	634-66-2	0.0002	0.0002	ND	ppm
1,2,3,5-Tetrachlorobenzene	634-90-2	0.0002	0.0002	ND	ppm
1,2,4,5-Tetrachlorobenzene	95-94-3	0.0002	0.0002	ND	ppm
Pentachlorobenzene	608-93-5	0.0002	0.0002	ND	ppm
Hexachlorobenzene	118-74-1	0.0002	0.0002	ND	ppm
2-Chlorotoluene	95-49-8	0.0002	0.0002	ND	ppm
3-Chlorotoluene	108-41-8	0.0002	0.0002	ND	ppm
4-Chlorotoluene	106-43-4	0.0002	0.0002	ND	ppm
2,3-Dichlorotoluene	32768-54-0	0.0002	0.0002	ND	ppm
2,4-Dichlorotoluene	95-73-8	0.0002	0.0002	ND	ppm
2,5-Dichlorotoluene	19398-61-9	0.0002	0.0002	ND	ppm
2,6-Dichlorotoluene	118-69-4	0.0002	0.0002	ND	ppm
3,4-Dichlorotoluene	95-75-0	0.0002	0.0002	ND	ppm

3,5-Dichlorotoluene	25186-47-4	0.0002	0.0002	ND	ppm
2,3,4-Trichlorotoluene	7359-72-0	0.0002	0.0002	ND	ppm
2,3,6-Trichlorotoluene	2077-46-5	0.0002	0.0002	ND	ppm
2,4,5-Trichlorotoluene	6639-30-1	0.0002	0.0002	ND	ppm
2,4,6-Trichlorotoluene	23749-65-7	0.0002	0.0002	ND	ppm
3,4,5-Trichlorotoluene	21472-86-6	0.0002	0.0002	ND	ppm
2,3,4,5-Tetrachlorotoluene	76057-12-0	0.0002	0.0002	ND	ppm
2,3,5,6-Tetrachlorotoluene	29733-70-8	0.0002	0.0002	ND	ppm
2,3,4,6-Tetrachlorotoluene	875-40-1	0.0002	0.0002	ND	ppm
Pentachlorotoluene	877-11-2	0.0002	0.0002	ND	ppm

### 5. Chlorophenols

With reference to In House Testing Method "IHTM AL.2.421" (Modified from EPA 3510C, EPA 8270E) ZDHC Wastewater Guidelines followed by GC-MS analysis.

Chlorophenols	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
2-Chlorophenol	95-57-8	0.0005	0.0005	ND	ppm
3-Chlorophenol	108-43-0	0.0005	0.0005	ND	ppm
4-Chlorophenol	106-48-9	0.0005	0.0005	ND	ppm
2,3-Dichlorophenol	576-24-9	0.0005	0.0005	ND	ppm
2,4-Dichlorophenol	120-83-2	0.0005	0.0005	ND	ppm
2,5-Dichlorophenol	583-78-8	0.0005	0.0005	ND	ppm
2,6-Dichlorophenol	87-65-0	0.0005	0.0005	ND	ppm
3,4-Dichlorophenol	95-77-2	0.0005	0.0005	ND	ppm
3,5-Dichlorophenol	591-35-5	0.0005	0.0005	ND	ppm
2,3,4-Trichlorophenol	15950-66-0	0.0005	0.0005	ND	ppm
2,3,5-Trichlorophenol	933-78-8	0.0005	0.0005	ND	ppm
2,3,6-Trichlorophenol	933-75-5	0.0005	0.0005	ND	ppm
2,4,5-Trichlorophenol	95-95-4	0.0005	0.0005	ND	ppm
2,4,6-Trichlorophenol	88-06-2	0.0005	0.0005	ND	ppm
3,4,5-Trichlorophenol	609-19-8	0.0005	0.0005	ND	ppm
2,3,4,5-Tetrachlorophenol	4901-51-3	0.0005	0.0005	ND	ppm
2,3,4,6-Tetrachlorophenol	58-90-2	0.0005	0.0005	ND	ppm
2,3,5,6-Tetrachlorophenol	935-95-5	0.0005	0.0005	ND	ppm
Pentachlorophenol (PCP)	87-86-5	0.0005	0.0005	ND	ppm

## 6. Azo dyes

With reference to In House Testing Method "IHTM AL.2.421" (Modified from EPA 3510C, ISO 14362-1) ZDHC Wastewater Guidelines followed by GC-MS analysis.

Azo Dyes	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
4,4'-Methylene-bis(2-chloroaniline)	101-14-4	0.0001	0.0001	ND	ppm
4,4'-Diaminodiphenylmethane	101-77-9	0.0001	0.0001	ND	ppm
4,4'-Oxydianiline	101-80-4	0.0001	0.0001	ND	ppm
4-Chloroaniline	106-47-8	0.0001	0.0001	ND	ppm
3,3'-Dimethoxybenzidine	119-90-4	0.0001	0.0001	ND	ppm
3,3'-Dimethylbenzidine	119-93-7	0.0001	0.0001	ND	ppm
p-Cresidine	120-71-8	0.0001	0.0001	ND	ppm
2,4,5-Trimethylaniline	137-17-7	0.0001	0.0001	ND	ppm
4,4'-Thiodianiline	139-65-1	0.0001	0.0001	ND	ppm
4-Aminoazobenzene	60-09-3	0.0001	0.0001	ND	ppm
4-methoxy-m-phenylenediamine	615-05-4	0.0001	0.0001	ND	ppm
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	0.0001	0.0001	ND	ppm
2,6-Xylidine	87-62-7	0.0001	0.0001	ND	ppm
o-Anisidine	90-04-0	0.0001	0.0001	ND	ppm
2-Naphthylamine	91-59-8	0.0001	0.0001	ND	ppm
3,3'-Dichlorobenzidine	91-94-1	0.0001	0.0001	ND	ppm
4-Aminobiphenyl	92-67-1	0.0001	0.0001	ND	ppm
Benzidine	92-87-5	0.0001	0.0001	ND	ppm
o-Toluidine	95-53-4	0.0001	0.0001	ND	ppm
2,4-Xylidine	95-68-1	0.0001	0.0001	ND	ppm
4-Chloro-o-toluidine	95-69-2	0.0001	0.0001	ND	ppm
4-Methyl-m-phenylenediamine	95-80-7	0.0001	0.0001	ND	ppm
o-Aminoazotoluene	97-56-3	0.0001	0.0001	ND	ppm
5-Nitro-o-toluidine	99-55-8	0.0001	0.0001	ND	ppm
2-Naphthylammoniumacetate	553-00-4	0.0001	0.0001	ND	ppm
2,4,5-trimethylaniline hydrochloride	21436-97-5	0.0001	0.0001	ND	ppm
4-chloro-o-toluidinium chloride	3165-93-3	0.0001	0.0001	ND	ppm
4-methoxy-m-phenylene diammonium sulphate; 2,4-diaminoanisole sulphate	39156-41-7	0.0001	0.0001	ND	ppm

## 7. Carcinogenic dyes



With reference to In House Testing Method "IHTM AL.2.421" (modified from DIN 54231) ZDHC Wastewater Guidelines followed by LC-MS analysis.

Carcinogenic dyes	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
C.I. Direct Black 38	1937-37-7	0.5	0.5	ND	ppm
C.I. Direct Blue 6	2602-46-2	0.5	0.5	ND	ppm
C.I. Acid Red 26	3761-53-3	0.5	0.5	ND	ppm
C.I. Basic Red 9	569-61-9	0.5	0.5	ND	ppm
C.I. Direct Red 28	573-58-0	0.5	0.5	ND	ppm
C.I. Basic Violet 14	632-99-5	0.5	0.5	ND	ppm
C.I. Disperse Blue 1	2475-45-8	0.5	0.5	ND	ppm
C.I. Disperse Blue 3	2475-46-9	0.5	0.5	ND	ppm
C.I. Basic Blue 26 (with Michler's Ketone > 0.1%)	2580-56-5	0.5	0.5	ND	ppm
C.I. Basic Green 4 (malachite green chloride)	569-64-2	0.5	0.5	ND	ppm
C.I. Basic Green 4 (malachite green oxalate)	2437-29-8	0.5	0.5	ND	ppm
C.I. Basic Green 4 (malachite green)	10309-95-2	0.5	0.5	ND	ppm
Disperse Orange 11	82-28-0	0.5	0.5	ND	ppm
Basic violet 3 with >0.1% of Michler's Ketoneb	548-62-9	0.5	0.5	ND	ppm
C.I. Acid Violet 49	1694-09-3	0.5	0.5	ND	ppm

#### 8. Disperse dyes

With reference to In House Testing Method "IHTM AL.2.421" (modified from DIN 54231) ZDHC Wastewater Guidelines followed by LC-MS analysis.

Disperse dyes	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
Disperse Yellow 1	119-15-3	0.05	0.05	ND	ppm
Disperse Blue 102	12222-97-8	0.05	0.05	ND	ppm
Disperse Blue 106	12223-01-7	0.05	0.05	ND	ppm
Disperse Yellow 39	12236-29-2	0.05	0.05	ND	ppm
Disperse Orange 37/59/76	13301-61-6	0.05	0.05	ND	ppm
Disperse Brown 1	23355-64-8	0.05	0.05	ND	ppm
Disperse Orange 1	2581-69-3	0.05	0.05	ND	ppm
Disperse Yellow 3	2832-40-8	0.05	0.05	ND	ppm
Disperse Red 11	2872-48-2	0.05	0.05	ND	ppm
Disperse Red 1	2872-52-8	0.05	0.05	ND	ppm

Disperse Red 17	3179-89-3	0.05	0.05	ND	ppm
Disperse Blue 7	3179-90-6	0.05	0.05	ND	ppm
Disperse Blue 26	3860-63-7	0.05	0.05	ND	ppm
Disperse Yellow 49	54824-37-2	0.05	0.05	ND	ppm
Disperse Blue 35	12222-75-2	0.05	0.05	ND	ppm
Disperse Blue 124	61951-51-7	0.05	0.05	ND	ppm
Disperse Yellow 9	6373-73-5	0.05	0.05	ND	ppm
Disperse Orange 3	730-40-5	0.05	0.05	ND	ppm
Disperse Blue 35	56524-77-7	0.05	0.05	ND	ppm

### 9. Flame retardants

With reference to In House Testing Method "IHTM AL.2.421"(Modified from EPA 3510C,EPA 527,ISO 22032) ZDHC Wastewater Guidelines followed by GC-MS and ICP-MS analysis.

With reference to In House Testing Method "IHTM AL.2.421" (Modified from EPA 3510C, EPA 8321B) ZDHC Wastewater Guidelines followed by LC-MS-MS analysis.

Flame retardants	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
Tris(2-chloroethyl) phosphate (TCEP)	115-96-8	0.025	0.025	ND	ppm
Decabromodiphenyl ether (DecaBDE)	1163-19-5	0.025	0.025	ND	ppm
Tris(2,3-dibromopropyl) phosphate (TRIS)	126-72-7	0.025	0.025	ND	ppm
Pentabromodiphenyl ether (PentaBDE)	32534-81-9	0.025	0.025	ND	ppm
Octabromodiphenyl ether (OctaBDE)	32536-52-0	0.025	0.025	ND	ppm
Bis(2,3-dibromopropyl) phosphate	5412-25-9	0.025	0.025	ND	ppm
Tris(1-aziridinyl)phosphine oxide (TEPA)	545-55-1	0.025	0.025	ND	ppm
Polybromobiphenyls (PBBs)	59536-65-1	0.025	0.025	ND	ppm
Tetrabromobisphenol A (TBBPA)	79-94-7	0.025	0.025	ND	ppm
Hexabromocyclododecane (HBCDD)	3194-55-6	0.025	0.025	ND	ppm
2,2-Bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0	0.025	0.025	ND	ppm
Tris(1,3-dichloro-isopropyl) phosphate (TDCP)	13674-87-8	0.025	0.025	ND	ppm
Tris-(2-chloro-1-methylethyl) phosphate (TCPP)	13674-84-5	0.025	0.025	ND	ppm
Decabromobiphenyl (DecaBB)	13654-09-6	0.025	0.025	ND	ppm
Dibromobiphenyls (DiBB)	Various	0.025	0.025	ND	ppm
Octabromobiphenyls (OctaBB)	Various	0.025	0.025	ND	ppm
Dibromopropylether	21850-44-2	0.025	0.025	ND	ppm
Heptabromodiphenyl ether (HeptaBDE)	68928-80-3	0.025	0.025	ND	ppm
Hexabromodiphenyl ether (HexaBDE)	36483-60-0	0.025	0.025	ND	ppm
Monobromobiphenyls (MonoBB)	Various	0.025	0.025	ND	ppm
Monobromodiphenylethers (MonoBDEs)	Various	0.025	0.025	ND	ppm
Nonabromobiphenyls (NonaBB)	Various	0.025	0.025	ND	ppm
Nonabromodiphenyl ether (NonaBDE)	63936-56-1	0.025	0.025	ND	ppm
Tetrabromodiphenyl ether (TetraBDE)	40088-47-9	0.025	0.025	ND	ppm
Tribromodiphenylethers (TriBDEs)	Various	0.025	0.025	ND	ppm
Boric acid	10043-35-3 / 11113-50-1	0.1	0.1	ND	ppm
Diboron trioxide	1303-86-2	0.1	0.1	ND	ppm
Disodium octaborate	12008-41-2	0.1	0.1	ND	ppm
Disodium tetraborate anhydrous	1303-96-4 / 1330-43-4	0.1	0.1	ND	ppm
Tetraboron disodium heptaoxide, hydrate	12267-73-1	0.1	0.1	ND	ppm

**10. Glycols**

With reference to In House Testing Method "IHTM AL.2.421" (Modified from EPA 3510C) ZDHC Wastewater Guidelines followed by GC-MS analysis.

Glycols	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
Bis(2-methoxyethyl)-ether	111-96-6	0.05	0.05	ND	ppm
2-ethoxyethanol	110-80-5	0.05	0.05	ND	ppm
2-ethoxyethyl acetate	111-15-9	0.05	0.05	ND	ppm
Ethylene glycol dimethyl ether	110-71-4	0.05	0.05	ND	ppm
2-methoxyethanol	109-86-4	0.05	0.05	ND	ppm
2-methoxyethylacetate	110-49-6	0.05	0.05	ND	ppm
2-methoxypropylacetate	70657-70-4	0.05	0.05	ND	ppm
Triethylene glycol dimethyl ether	112-49-2	0.05	0.05	ND	ppm

**11. Chlorinated solvents**

With reference to In House Testing Method "IHTM AL.2.421" (Modified from EPA 8260D, EPA 5021A) ZDHC Wastewater Guidelines followed by Headspace GC-MS analysis.

Chlorinated solvents	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result Sample 1 (Before treatment) (ppm)	Unit
1,2-Dichloroethane	107-06-2	0.001	0.001	ND	ppm
Methylene chloride	75-09-2	0.001	0.001	ND	ppm
Trichloroethene	79-01-6	0.001	0.001	ND	ppm
Tetrachloroethene	127-18-4	0.001	0.001	ND	ppm

**12. Organotin compounds**

With reference to In House Testing Method "IHTM AL.2.421" (Modified from EPA 3510C, ISO 17353) ZDHC Wastewater Guidelines followed by GC-MS analysis.

Organotin compounds	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result Sample 1 (Before treatment) (ppm)	Unit
Mono-, di- and tri-methyltin derivatives	Various	0.00001	0.00001	ND	ppm
Mono-, di- and tri-butyltin derivatives	Various	0.00001	0.00001	ND	ppm
Mono-, di- and tri-phenyltin derivatives	Various	0.00001	0.00001	ND	ppm
Mono-, di- and tri-octyltin derivatives	Various	0.00001	0.00001	ND	ppm
Tricyclohexyltin (TCyHT)	Various	0.00001	0.00001	ND	ppm
Dipropyltin compounds (DPT)	Various	0.00001	0.00001	ND	ppm

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Tetrabutyltin compounds (TeBT)	Various	0.00001	0.00001	ND	ppm
Tripropyltin Compounds (TPT)	Various	0.00001	0.00001	ND	ppm
Tetraoctyltin compounds (TeOT)	Various	0.00001	0.00001	ND	ppm
Tetraethyltin Compounds (TeET)	Various	0.00001	0.00001	ND	ppm

## 13. Phthalates

With reference to In House Testing Method "IHTM AL.2.421" (Modified from EPA 3510C, EPA 8270E, ISO 18856, ISO 14389) ZDHC Wastewater Guidelines followed by GC-MS analysis.

Phthalates	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result Sample 1 (Before treatment) (ppm)	Unit
Di-2-ethylhexyl phthalate (DEHP)	117-81-7	0.01	0.01	ND	ppm
Dimethoxyethyl phthalate (DMEP)	117-82-8	0.01	0.01	ND	ppm
Di-n-octyl phthalate (DNOP)	117-84-0	0.01	0.01	ND	ppm
Di-iso-decyl phthalate (DIDP)	26761-40-0/68515-49-1	0.01	0.01	ND	ppm
Di-iso-nonyl phthalate (DINP)	28553-12-0/68515-48-0	0.01	0.01	ND	ppm
Di-n-hexyl phthalate (DnHP)	84-75-3	0.01	0.01	ND	ppm
Dibutyl phthalate (DBP)	84-74-2	0.01	0.01	ND	ppm
Butyl benzyl phthalate (BBP)	85-68-7	0.01	0.01	ND	ppm
Diethyl phthalate (DEP)	84-66-2	0.01	0.01	ND	ppm
Di-n-propyl phthalate (DPRP)	131-16-8	0.01	0.01	ND	ppm
Di-iso-butyl phthalate (DIBP)	84-69-5	0.01	0.01	ND	ppm
Di-cyclohexyl phthalate (DCHP)	84-61-7	0.01	0.01	ND	ppm
Di-iso-octyl phthalate (DIOP)	27554-26-3	0.01	0.01	ND	ppm
1,2-benzenedicarboxylic acid, di-C7-11-branched and linearakyl esters (DHNUP)	68515-42-4	0.01	0.01	ND	ppm
1,2-benzenedicarboxylic acid, di-C6-11-branched alkyl esters, C7-rich (DIHP)	71888-89-6	0.01	0.01	ND	ppm
Di-n-pentylphthalates	131-18-0	0.01	0.01	ND	ppm
Diisopentylphthalates	605-50-5	0.01	0.01	ND	ppm
Dinonyl phthalate (DNP)	84-76-4	0.01	0.01	ND	ppm

**14. Perfluorinated chemicals (PFCs)**

PFCs: With reference to In House Testing Method "IHTM AL.2.421" (modified from DIN 38407-42, CEN/TS 15968) ZDHC Wastewater Guidelines followed by LC-MS-MS analysis.

FTOH: With reference to In House Testing Method "IHTM AL.2.421" (modified from EPA 3510C, CEN/TS 15968, Journal of Chromatography A, 1178 (2008) 199-205) ZDHC Wastewater Guidelines followed by GC-MS analysis.

Perfluorinated chemicals (PFCs)	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result Sample 1 (Before treatment) (ppm)	Unit
Perfluoro-octanoic acid (PFOA)	335-67-1	0.00001	0.00001	ND	ppm
Perfluoro-octane-sulfonic acid (L-PFOS)	1763-23-1	0.00001	0.00001	ND	ppm
Perfluoro-octane-sulfon-amide (PFOSA)	754-91-6	0.00001	0.00001	ND	ppm
N-Methyl-perfluoro-octane-sulfon-amide(N-Me-FOSA)	31506-32-8	0.00001	0.00001	ND	ppm
N-Ethyl-perfluoro-octane-sulfon-amide (N-Et-FOSA)	4151-50-2	0.00001	0.00001	ND	ppm
N-Methyl-perfluoro-octane-sulfon-amido-ethanol(N-Me-FOSEalcohol)	24448-09-7	0.00001	0.00001	ND	ppm
N-Ethyl-Perfluoro-octane-sulfon-amido-ethanol(N-Et-FOSEalcohol)	1691-99-2	0.00001	0.00001	ND	ppm
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	39108-34-4	0.001	0.001	ND	ppm
2-Perfluorooctylethanol (8:2 FTOH)	678-39-7	0.001	0.001	ND	ppm
1H,1H,2H,2H-Perfluorodecyl acrylate (8:2 FTA)	27905-45-9	0.001	0.001	ND	ppm
1H,1H,2H,2H-Perfluorodecyl methacrylate (8:2 FTMA)	1996-88-9	0.001	0.001	ND	ppm
Methyl perfluorooctanoate (Me-PFOA)	376-27-2	0.001	0.001	ND	ppm
Ethyl perfluorooctanoate Et-PFOA	3108-24-5	0.001	0.001	ND	ppm

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

With reference to In House Testing Method "IHTM AL.2.421" (Modified from EPA 3510C, EPA 8270E, DIN 38407-39) ZDHC Wastewater Guidelines followed by GC-MS analysis.

Polycyclic aromatic hydrocarbons (PAHs)	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result Sample 1 (Before treatment) (ppm)	Unit
Benzo(a)pyrene (BaP)	50-32-8	0.001	0.001	ND	ppm
Anthracene	120-12-7	0.001	0.001	ND	ppm
Pyrene	129-00-0	0.001	0.001	ND	ppm
Benzo(ghi)perylene	191-24-2	0.001	0.001	ND	ppm
Benzo(e)pyrene	192-97-2	0.001	0.001	ND	ppm
Indeno (1,2,3-cd)pyrene	193-39-5	0.001	0.001	ND	ppm
Benzo(j)fluoranthene	205-82-3	0.001	0.001	ND	ppm
Benzo(b)fluoranthene	205-99-2	0.001	0.001	ND	ppm
Fluoranthene	206-44-0	0.001	0.001	ND	ppm
Benzo(k)fluoranthene	207-08-09	0.001	0.001	ND	ppm

Acenaphthylene	208-96-8	0.001	0.001	ND	ppm
Chrysene	218-01-9	0.001	0.001	ND	ppm
Dibenz(a,h)anthracene	53-70-3	0.001	0.001	ND	ppm
Benzo(a)anthracene	56-55-3	0.001	0.001	ND	ppm
Acenaphthene	83-32-9	0.001	0.001	ND	ppm
Phenanthrene	85-01-8	0.001	0.001	ND	ppm
Fluorene	86-73-7	0.001	0.001	ND	ppm
Naphthalene	91-20-3	0.001	0.001	ND	ppm

#### 16. Volatile organic compounds (VOCs)

With reference to In House Testing Method "IHTM AL.2.421" (modified from EPA 8260D ve EPA 5021A) ZDHC Wastewater Guidelines followed by Headspace GC-MS analysis.

Volatile organic compounds (VOCs)	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result Sample 1 (Before treatment) (ppm)	Unit
Benzene	71-43-2	0.001	0.001	ND	ppm
Xylene	1330-20-7	0.001	0.001	ND	ppm
o-cresol	95-48-7	0.001	0.001	ND	ppm
p-cresol	106-44-5	0.001	0.001	ND	ppm
m-cresol	108-39-4	0.001	0.001	ND	ppm
Toluene*	108-88-3	0.001	0.001	ND	ppm

\*Report for mock leather only

#### 17. Anti - Microbials & Biocides

With reference to In House Testing Method "IHTM AL.2.421" (Modified from EPA 3510C, EPA 8270E) ZDHC Wastewater Guidelines Solvent

Anti - Microbials & Biocides	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result Sample 1 (Before treatment) (ppm)	Unit
o-Phenylphenol (+salts)	90-43-7	0.1	0.1	ND	ppm
Triclosan	3380-34-5	0.1	0.1	ND	ppm
Permethrin	Multiple	0.5	0.5	ND	ppm

#### 18. Chlorinated paraffins

With reference to In House Testing Method "IHTM AL.2.421" (modified from EPA 3510C, ISO 12010) ZDHC Wastewater Guidelines Solvent extraction, followed by GC-ECNI-MS analysis.

Chlorinated paraffins	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result Sample 1 (Before treatment) (ppm)	Unit
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Short-chain Chlorinated paraffin (C10 – C13)	85535-84-8	0.025	0.025	ND	ppm
Medium-chain Chlorinated paraffins (MCCPs) (C14-C17)	85535-85-9	0.500	0.500	ND	ppm

**19. N,N-di-methylformamide (DMFa)**

With reference to In House Testing Method "IHTM AL.2.475" (modified from DIN 54439) followed by GC-MS analysis.

N,N-di-methylformamide (DMFa)	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result Sample 1 (Before treatment) (ppm)	Unit
Dimethyl formamide; N,N-dimethylformamide(DMFa)*	68-12-2	1	1	ND	ppm

\*Report for mock leather only

**20. Dyes-Navy Blue Colourant**

With reference to In House Testing Method "IHTM AL.2.421" (modified from DIN 54231) ZDHC Wastewater Guidelines followed by LC-MS analysis.

Dyes-Navy Blue Colourant	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result Sample 1 (Before treatment) (ppm)	Unit
Component 1: C39H23Cl-CrN7O12S 2Na	118685-33-9	0.5	0.5	ND	ppm
Component 2: C46H-30CrN10O20S2 3Na	Not Allocated	0.5	0.5	ND	ppm

**21. Other/Miscellaneous Chemicals**

Others: With reference to In House Testing Method "IHTM AL.2.421" ZDHC Wastewater Guidelines followed by LC-MS-MS analysis.

Quinoline: With reference to In House Testing Method "IHTM AL.2.421" (Modified from DIN 54231) ZDHC Wastewater Guidelines followed by LC-MS-MS analysis.

Borate salt: determined as total boron and total zinc with reference to In House Testing Method "IHTM AL.2.428" (Modified from EPA 3051A, ISO 17294-2 ve EPA 6020B) ZDHC Wastewater Guidelines followed by ICP-MS analysis.

Other/Miscellaneous Chemicals	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result Sample 1 (Before treatment) (ppm)	Unit
AEEA [2-(2-aminoethylamino)ethanol]	111-41-1	0.5	0.5	ND	ppm
Bisphenol A	80-05-7	0.01	0.01	ND	ppm
Thiourea	62-56-6	0.05	0.05	ND	ppm
Quinoline	91-22-5	0.05	0.05	ND	ppm
Borate, zinc salt (^)	12767-90-7	0.1 ppm in Boron	0.1 ppm in Boron	Boron: ND Zinc: ND	ppm

**22. UV Absorbers**

With reference to In House Testing Method "IHTM AL.2.421" ZDHC Wastewater Guidelines followed by GC-MS analysis.

UV Absorbers	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result Sample 1 (Before treatment) (ppm)	Unit
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl) phenol(UV-350)	36437-37-3	0.1	0.1	ND	ppm

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2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	0.1	0.1	ND	ppm
2-benzotriazol-2-yl-4,6-di-tertbutylphenol (UV-320)	3846-71-7	0.1	0.1	ND	ppm
2,4-Di-tert-butyl-6-(5-chlorobenzotriazole-2-yl) phenol (UV-327)	3864-99-1	0.1	0.1	ND	ppm

## Remark

ND = Not detected

D = Detected

(f)= parameter tested in field

@ = Maximum holding time exceeded,

red flag in the ZDHC Gateway – Wastewater Module.

Probable error in results due to the holding time.

N/A = Not applicable

- = Did not perform

(T)= handling temperature exceeded

# = Non accredited parameter

(S) = The analysis was subcontracted to Intertek [Intertek Turkey Food Laboratory] for testing.

(^) = Borate, zinc salt would report ND when total boron or total zinc less than 100 µg/L.



**23. Sludge Parameters – Step 1 - Metals**

Others: With reference to In House Testing Method "IHTM AL.2.428"(EPA 3051A, ISO 17294-2 ve EPA 6020B'den modifiye edilmiştir) ZDHC Wastewater Guidelines followed by ICP-MS analysis.Chromium VI: With reference to In House Testing Method "IHTM AL.2.428"(ISO 18412, TS EN ISO 18412'den modifiye edilmiştir.) ZDHC Wastewater Guidelines followed by Colourimetric UV/VIS analysis.

Sludge Parameters – Step 1 - Metals	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result	Unit
Antimony	Various	5	5	ND	ppm
Arsenic	Various	5	5	ND	ppm
Barium	Various	200	200	ND	ppm
Cadmium	Various	1	1	ND	ppm
Cobalt	Various	400	400	ND	ppm
Copper	Various	50	50	263	ppm
Lead	Various	5	5	ND	ppm
Nickel	Various	20	20	52	ppm
Selenium	Various	5	5	ND	ppm
Silver	Various	50	50	ND	ppm
Total Chromium	Various	50	50	74	ppm
Zinc	Various	400	400	2688	ppm
Chromium (VI)	Various	20	20	ND	ppm
Mercury	Various	1	1	ND	ppm

**24. Sludge Parameters – Step 1 - Anions**

With reference to USEPA 9013, USEPA 9014, USEPA 9213, HJ745 with Colourimetry or ISE analysis.

Sludge Parameters – Step 1 - Anions	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result	Unit
Cyanide	-	20	20	ND	ppm

**25. Sludge Parameters - Step 1 – Conventional**

Sludge Parameters – Step 1 - Conventional	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result	Unit
pH	USEPA SW 9045D	N/A	N/A	8	N/A
% Solids	USEPA 160.3	N/A	N/A	71.2	%
Paint Filter Test	USEPA 9095B	N/A	N/A	Pass	N/A
Fecal Coliform <sup>(S)</sup>	ISO 7899-2	10 MPN/g	10 MPN/g	ND	MPN/g

**26. Sludge Parameters - Step 1 - MRSL - Alkylphenol (AP)and Alkylphenol Ethoxylates (APEOs): including all isomers**

APs/APEOs (n=1,2): With reference to In House Testing Method, "IHTM AL.2.428" (modified from EPA 3540C, ISO 18857-2 ZDHC Wastewater Guidelines dichloromethane extraction GC-MS analysis.

APs/APEOs (n>2):With reference to In House Testing Method "IHTM AL.2.428" (modified from EPA 3550C, ISO 18254-1) LC-MS-MS analysis.

Sludge Parameters - Step 1 - MRSL - Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers	Test Method	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result	Unit
Nonylphenol ethoxylates (NPEO)	9016-45-9; 26027-38-3; 37205-87-1; 68412-54-4; 127087-87-0	0.4	0.4	ND	ppm

Nonylphenol (NP), mixed isomers	104-40-5; 11066-49-2; 25154-52-3; 84852-15-3	0.4	0.4	ND	ppm
Octylphenol ethoxylates (OPEO)	9002-93-1; 9036-19-5; 68987-90-6	0.4	0.4	ND	ppm
Octylphenol (OP), mixed isomers	140-66-9; 1806-26-4; 27193-28-8	0.4	0.4	ND	ppm

### 27. Sludge Parameteres - Step 1 - MRSL - PolycyclicAromatic Hydrocarbons (PAHs)

With reference to In House Testing Method "IHTM AL.2.428" (modified from EPA 3540C, EPA 8270E, DIN 38407-39) ZDHC Wastewater Guidelines followed by GC-MS analysis.

Sludge Parameteres - Step 1 - MRSL - Polycyclic Aromatic Hydrocarbons (PAHs)	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result	Unit
Acenaphthene	83-32-9	0.2	0.2	ND	ppm
Acenaphthylene	208-96-8	0.2	0.2	ND	ppm
Anthracene	120-12-7	0.2	0.2	ND	ppm
Benzo[a]anthracene	56-55-3	0.2	0.2	ND	ppm
Benzo[a]pyrene (BaP)	50-32-8	0.2	0.2	ND	ppm
Benzo[b]fluoranthene	205-99-2	0.2	0.2	ND	ppm
Benzo[e]pyrene	192-97-2	0.2	0.2	ND	ppm
Benzo[ghi]perylene	191-24-2	0.2	0.2	ND	ppm
Benzo[j]fluoranthene	205-82-3	0.2	0.2	ND	ppm
Benzo[k]fluoranthene	207-08-9	0.2	0.2	ND	ppm
Chrysene	218-01-9	0.2	0.2	ND	ppm
Dibenz[a,h]anthracene	53-70-3	0.2	0.2	ND	ppm
Fluoranthene	206-44-0	0.2	0.2	ND	ppm
Fluorene	86-73-7	0.2	0.2	ND	ppm
Indeno[1,2,3-cd]pyrene	193-39-5	0.2	0.2	ND	ppm
Naphthalene	91-20-3	0.2	0.2	ND	ppm
Phenanthrene	85-01-8	0.2	0.2	ND	ppm
Pyrene	129-00-0	0.2	0.2	ND	ppm

### 28. Sludge Parameteres - Step 1 - MRSL – Chlorotoluenes

With reference to In House Testing Method "IHTM AL.2.428" (modified from EPA 3510C, EPA 8260D, EPA 8270E) ZDHC Wastewater Guidelines followed by GC-MS analysis.

Sludge Parameteres - Step 1 - MRSL – Chlorotoluenes	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result	Unit
2-Chlorotoluene	95-49-8	0.2	0.2	ND	ppm
3-Chlorotoluene	108-41-8	0.2	0.2	ND	ppm
4-Chlorotoluene	106-43-4	0.2	0.2	ND	ppm

2,3-Dichlorotoluene	32768-54-0	0.2	0.2	ND	ppm
2,4-Dichlorotoluene	95-73-8	0.2	0.2	ND	ppm
2,5-Dichlorotoluene	19398-61-9	0.2	0.2	ND	ppm
2,6-Dichlorotoluene	118-69-4	0.2	0.2	ND	ppm
3,4-Dichlorotoluene	95-75-0	0.2	0.2	ND	ppm
3,5-Dichlorotoluene	25186-47-4	0.2	0.2	ND	ppm
2,3,4-Trichlorotoluene	7359-72-0	0.2	0.2	ND	ppm
2,3,6-Trichlorotoluene	2077-46-5	0.2	0.2	ND	ppm
2,4,5-Trichlorotoluene	6639-30-1	0.2	0.2	ND	ppm
2,4,6-Trichlorotoluene	23749-65-7	0.2	0.2	ND	ppm
3,4,5-Trichlorotoluene	21472-86-6	0.2	0.2	ND	ppm
2,3,4,5-Tetrachlorotoluene	76057-12-0	0.2	0.2	ND	ppm
2,3,5,6-Tetrachlorotoluene	29733-70-8	0.2	0.2	ND	ppm
2,3,4,6-Tetrachlorotoluene	875-40-1	0.2	0.2	ND	ppm
Pentachlorotoluene	877-11-2	0.2	0.2	ND	ppm

**29. Sludge Parameters - Step 2 – Metals**

Others: With reference to ISO 17294-2 with ICP-MS analyses.

Chromium VI: With reference to Toxicity leachate extraction procedure ISO 18412 with Colourimetric UV/VIS analyses.

Mercury: With reference to EPA 6020b with ICP-MS analysis.

Sludge Parameters - Step 2 – Metals	CAS no.	Lab Reporting limit (ppm)	ZDHC Reporting limit (ppm)	Result	Unit
Antimony	Various	0.12	0.6	N/A	ppm
Arsenic	Various	0.1	0.5	N/A	ppm
Barium	Various	7	35	N/A	ppm
Cadmium	Various	0.03	0.15	N/A	ppm
Cobalt	Various	16	80	N/A	ppm
Copper	Various	2	10	ND	ppm
Lead	Various	0.1	0.5	N/A	ppm
Nickel	Various	0.7	3.5	N/A	ppm
Selenium	Various	0.1	0.5	N/A	ppm
Silver	Various	1	5	N/A	ppm
Total Chromium	Various	1	5	N/A	ppm
Zinc	Various	10	50	ND	ppm
Chromium (VI)	Various	0.5	2.5	N/A	ppm
Mercury	Various	0.01	0.05	N/A	ppm

**Remark**

ND = Not detected

D = Detected

(f)= parameter tested in field

@ = Maximum holding time exceeded,

red flag in the ZDHC Gateway – Wastewater Module.

Probable error in results due to the holding time.

N/A = Not applicable

- = Did not perform

(T)= handling temperature exceeded

# = Non accredited parameter

(S) = The analysis was subcontracted to Intertek [Intertek Turkey Food Laboratory] for testing.

## Appendix 1: Reference to ZDHC WWSG v2.1 Table 4B

Parameters	Total metals and anions threshold values (mg/kg)	Disposal pathways						
		A and B (Leachate result in mg/L)	C (Leachate result in mg/L)	D (Leachate result in mg/L)	E (Leachate result in mg/L)	F (Leachate result in mg/L)	G (Leachate result in mg/L)	G (Total metals limit in mg/kg)
Arsenic	10	Report only if required to test	5	2.75	0.5	0.5	0.5	75
Cadmium	3		1	0.58	0.15	0.15	0.15	85
Total Chromium	100		15	10	5	5	5	3000
Lead	10		5	2.75	0.5	0.5	0.5	840
Antimony	12		15	7.8	0.6	0.6	0.6	Sample and report only
Barium	700		100	67.5	35	35	35	
Cobalt	1600		80	80	80	80	80	
Copper	200		25	17.5	10	10	10	4300
Nickel	70		20	11.75	3.5	3.5	3.5	420
Selenium	10		1	0.75	0.5	0.5	0.5	100
Silver	100		5	5	5	5	5	Sample and report only
Zinc	1000		250	150	50	50	50	7500
Chromium VI	50		5	3.75	2.5	2.5	2.5	50
Mercury	1		0.2	0.125	0.05	0.05	0.05	

## Appendix 2: reference to ZDHC WWSG v2.1 Table 4C

Parameters	Disposal pathways							
	A and B	C	D	E	F	G		
pH	Sample and report only	5 – 11 s.u.	5 – 11 s.u.	5 – 11 s.u.	6.5 – 9 s.u.	6.5 – 9 s.u.		
% Solids		Sample and report only	Sample and report only	Sample and report only	Sample and report only	Sample and report only		
Fecal Coliform					< 1000 (MPN/g)			
Paint Filter Test					Pass Paint filter test			Sample and report only
Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers					< 0.4 mg/kg			
Polycyclic					< 0.2 mg/kg			
Aromatic								
Hydrocarbons (PAHs)								
Chlorotoluenes								

## Appendix 2: reference to ZDHC WWSG v2.1 Table 4D

Parameters	Disposal pathways					
	A and B	C	D	E	F	G
Cyanide	Report only if required to test	100 mg/kg	85 mg/kg	70 mg/kg	70 mg/kg	70 mg/kg

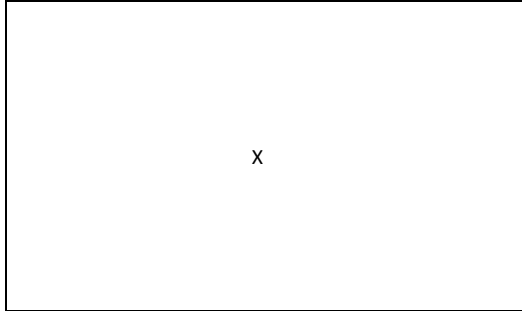


Photo of before treatment area



Photo of sampling point (before treatment)

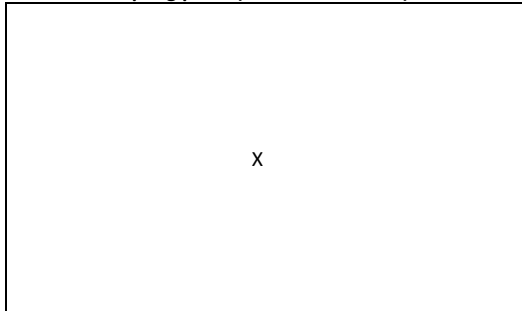


Photo of Sludge Area

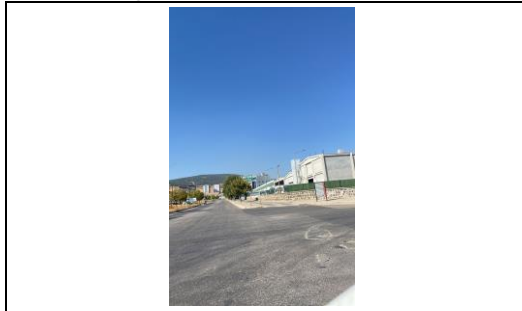


Photo of facility gate

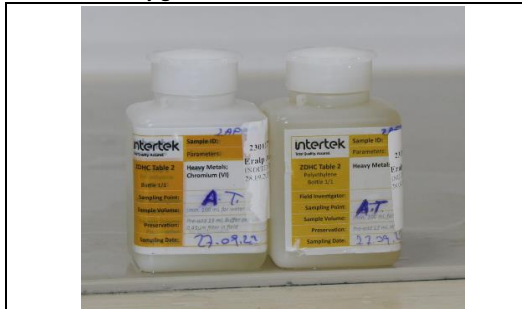


Photo of wastewater sample (after treatment)



Photo of after treatment area



Photo of sampling point (after treatment)

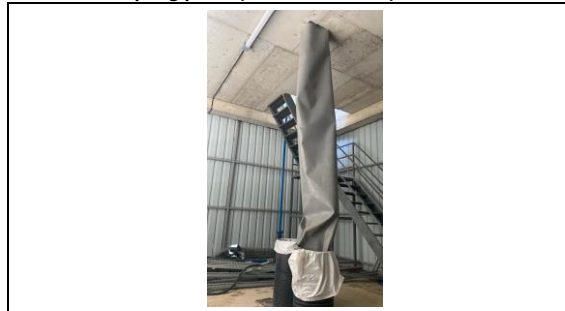


Photo of Sampling Point (Sludge)



Photo of wastewater sample (before treatment)



Photo of sludge sample



## ZDHC İzleme / Monitoring

Atıksu ve Çamur Numune Alım Tutanağı, ZDHC SAP 2.1'e göre Ek-E dahil.  
Sampling Protocol for Wastewater and Sludge acc. ZDHC SAP 2.1 incl. Appx. E

Firma Adı Facility Name:	Zafer Tekstil Sanayi Ve Ticaret A.Ş. (4. Bölge)					
Adres ve İlgili Address and Contact:	Başınar OSB Mahallesi 4.OSB 83407 Nolu Cadde No:4 Şehitkamil / Gaziantep					
Firma Türü Facility Type:	<input type="checkbox"/> Boya & Apre Dyeing & Finishing	<input type="checkbox"/> Kumaş Fabrikası Fabric Mill	<input type="checkbox"/> Yıkama & Apre Washing & Finishing	<input type="checkbox"/> Doğal Deri İşleme Natural Leather proc.	<input type="checkbox"/> Baskı Printing	<input type="checkbox"/> Yapay Deri İşleme Synthetic Leather proc.
Numune Alım Tarihi Date of sampling:	27.09.2023					
Genel Numune Kodu Sample General ID (Eğer Varsa / If Available):	<input type="checkbox"/> Direkt Deşarj / Direct Discharge	<input checked="" type="checkbox"/> Dolaylı Deşarj / Indirect Discharge	<input type="checkbox"/> Sıfır Sıvı Deşarjı / Zero Liquid Discharge (ZLD)	<input type="checkbox"/> Sentetik Selülozik Elyaf / MMCF	<input type="checkbox"/> Arıtmasız / Without Treatment	<input checked="" type="checkbox"/> Ön Arıtmalı / With Pre-treatment
Deşarj Tanımı Discharge Description:	Boya ve yıkama suları arıtma tesisine gelmektedir.					
Hava Durumu Weather Conditions:	Numune Alım Gününde / On Sampling Day:			Önceki Gün / On Day Before:		
	Güneşli			Güneşli		

Numune Türü ve Detayları (ayrıca 2. Sayfaya bakın) / Sample Type and Details (also see page 2)

<input checked="" type="checkbox"/> Atıksu Deşarjı / Effluent Discharge	<input type="checkbox"/> Direkt / Direct:	Veya / or <input checked="" type="checkbox"/> Dolaylı / Indirect	<input checked="" type="checkbox"/> Homojenizasyon / Dengeleme Tankı Mevcut with Homogenisation / Equalisation Tank (HT) Present:			
	Numune alım zamanlarını ve saha ölçümlerini sayfa 2'deki numune detaylarına yazınız. Enter sampling times in sample details (page 2), and measure field parameters.	Numune alım zamanlarını yazınız. Talep harici saha ölçümleri gerekli değildir. Enter sampling time(s) for indirect discharge. Field parameters are not required, except on client's request.	Hidrolik Bekleme Süresi / Hydraulic Retention Time (HRT): 6 saat h (= Tank Hacmi Volume of tank [m <sup>3</sup> ] / Debi Flow Rate [m <sup>3</sup> /h]) HRT > 12 saat ise, arıtma öncesi ve sonrası anlık numune alımı yapılır. If HRT > 12h, grab sampling for both untreated and treated wastewater from a point after the HT could be applied.			
<input type="checkbox"/> Ön arıtılmış Atıksu, Çamursuz / Pre-treated WW without sludge	<input checked="" type="checkbox"/> Arıtılmamış Atıksu / Untreated Wastewater	<input type="checkbox"/> Proses-Kullanım Suyu / Incoming Water	<input type="checkbox"/> Sentetik Selülozik Elyaf / MMCF			
<input checked="" type="checkbox"/> Çamur seçilen bertaraf yoluyla* Sludge with below disposal pathway: Çamur Yaşı / Age of Sludge: 3 gün/hafta (days/ weeks)						
<input type="checkbox"/> A	<input type="checkbox"/> B	<input checked="" type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> E	<input type="checkbox"/> F	<input type="checkbox"/> G
>1000 °C Harici Yakma Tesisi >1000 °C Offsite Incineration)	Kontrollü Düzenli Depolama Sahası Landfill with Significant Control	Kontrollü Düzenli Depolama Sahası Building products processed >1000 °C	Sınırlı Kontrollü Düzenli Depolama Sahası Landfill with Limited Control	<1000 °C Yapı Malzemesi Üretim Prosesi / Yakma Incineration / Building Products Processed <1000 °C	Düzensiz Depolama Sahası Landfill with No Control	Arazi Islahı Land Application

\*Eğer bertaraf yolu bilgisi sağlanmazsa, bertaraf yolu 'F' olarak kabul edilir. If supplier cannot provide information, pathway "F" shall be assumed.

Üretilen Çamur Hacmi: Sludge Volume Produced	2m <sup>3</sup> /gün	<input type="checkbox"/> m <sup>3</sup> /saat (m <sup>3</sup> /h) <input type="checkbox"/> l/saniye (l/sn)	<input type="checkbox"/> Diğer Birim (Belirtiniz) Other Unit (Specify):	<input type="checkbox"/> Firmadan Alınan Bilgi Per Facility Info	<input type="checkbox"/> Ölçülen Measured	<input type="checkbox"/> Tahmini Estimated			
<input type="checkbox"/> Proses Kimyasalları Process Chemical	<input type="checkbox"/> Sıvı Liquid	<input type="checkbox"/> Katı (Toz / Granül / Parçacıklı) Solid (Powder / Granulate / Pieces)	<input checked="" type="checkbox"/> 'İşlemden' 'In Process'	<input checked="" type="checkbox"/> Depo / Stoktan From Warehouse / Storage					
Numune Alım Zamanları Times of Sampling	Arıtılmamış Atıksu Untreated	1	2	3	4	5	6	7	Veya Anlık or Grab: PH: 8,10 Sıcaklık: 34,0
	Dolaylı Deşarj Effluent Indirect:	1	2	3	4	5	6	7	Veya Anlık or Grab:
	Kullanım Suyu Incoming:	1	2	3	4	5	6	7	Veya Anlık or Grab:
	Sıvı Çamur Liquid Sludge:	1	2	3	4	5	6	7	Kuru Çamur Solid Sludge: 15:30
Fotoğraf No. (veya Tarih & Saat / Aralık) Picture ID (or Date & Time / Interval):	Numune Alım Noktalarının GPS Koordinatları GPS Coordinates of Sampling Points:								
	Kullanım Suyu/ Incoming W.:	Lat.: ON OS			Long.: OE OW				
	Arıtılmamış Atıksu/ Untreated WW:	Lat.: ON OS 37° 8' 32.99320"			Long.: OE OW 37° 22' 26.99720"				
	Deşarj/ Effluent:	Lat.: ON OS 37° 8' 36.14160"			Long.: OE OW 37° 22' 25.42070"				
	Çamur/ Sludge:	Lat.: ON OS 37° 8' 36.14160"			Long.: OE OW 37° 22' 25.98840"				

Rev 10b-3 - use with Guideline CS009.TP (Issue 10b)

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Effective Date: 30-May-2023

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## SAMPLING PROTOCOL (PAGE 2 OF 3)

## ZDHC İzleme / Monitoring

Numune Detayları		Saha ölçüm parametreleri sadece direkt deşarj için gereklidir. Ancak dolaylı deşarj için talep varsa bu alan kullanılmalıdır.						
Sample Details		Field parameters usually are required only for direct discharge. If client requests also for indirect discharge, use below fields.						
<input checked="" type="checkbox"/> Kompozit Numune Alım		<input type="checkbox"/> Anlık Numune Alım (Ortalama değer kolonunu kullanın)					Alınan Numunelerin Hacmi	
Composite Sample		Grab Sample (Use column for Averaged Readings and fields at right)					Volume of Aliquot(s): 20.000 mL	
Numune Alma Zamanları	1	2	3	4	5	6	7	Ortalama Değerler veya Anlık Numune Ölçümleri
Time of Taking Discrete Sample	10:10	11:10	12:10	13:10	14:10	15:10	16:10	Ava. Readings or Grab Sample:
pH:	7.43	6.94	7.62	7.87	7.90	7.21	7.26	7.34
Sıcaklık / Atıksu Deşarj Temp. / WW Discharge Temp. / Alınan Ortam / Receiving Water	26.7 °C	27.1 °C	27.3 °C	29.1 °C	31.0 °C	32.8 °C	34.3 °C	37.1 °C
Debi Flow Rate:	83 m <sup>3</sup> /sa.(h)	87 m <sup>3</sup> /sa.(h)	85 m <sup>3</sup> /sa.(h)	85 m <sup>3</sup> /sa.(h)	85 m <sup>3</sup> /sa.(h)	83 m <sup>3</sup> /sa.(h)	85 m <sup>3</sup> /sa.(h)	2000 m <sup>3</sup> /gün(d)
Çözünmüş Oksijen Dissolved Oxygen:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Toplam Klor Total Chlorine:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Kalıcı Köpük Persistent Foam:	<input type="radio"/> Var / Yes <input checked="" type="radio"/> Yok / No	<input type="radio"/> Var / Yes <input checked="" type="radio"/> Yok / No	<input type="radio"/> Var / Yes <input checked="" type="radio"/> Yok / No	<input type="radio"/> Var / Yes <input checked="" type="radio"/> Yok / No	<input type="radio"/> Var / Yes <input checked="" type="radio"/> Yok / No	<input type="radio"/> Var / Yes <input checked="" type="radio"/> Yok / No	<input type="radio"/> Var / Yes <input checked="" type="radio"/> Yok / No	<input type="radio"/> Var / Yes <input checked="" type="radio"/> Yok / No
Numune adedi yedi'den fazla ve eğer yukarıdaki alan yeterli gelmezse, yorumlar kısmını kullanın. Use comment field if number of samples is greater than seven, or if above fields are otherwise not sufficient.								
Numune Alım Metodu		<input type="radio"/> Otomatik Numune Alım						
Sampling Technique:		<input checked="" type="radio"/> Beher ile / With Beaker						
		<input type="radio"/> Diğer / Other:						
Atıksu Debi Bilgisi (Deşarj) Wastewater Flow Data (Effluent / Discharge)								
Ölçüm Sistemi System:	<input checked="" type="checkbox"/> Debi Metre (Firmanın) / Flow Meter (In Facility)		<input type="checkbox"/> Boru (O) / Pipe		<input type="checkbox"/> Su yolu (U) / Flume		<input type="checkbox"/> V Çentikli Savak (V) / Wier	
Çap [cm] Diameter								
Su Derinliği [cm] Water Depth								
Akış Hızı [cm/sec] Flow Speed								
Genel Saha Parametreleri ve Duyusal Veriler (mümkün olduğu kadar) General Field Parameters and Sensory Data (as far as applicable)								
Type	Ortam Sıcaklığı / T ambient air [°C]	Koku / Odour	Colour / Renk	Köpük / Foam	Yüzer Madde / Floating Matter			
Kullanım Incoming				<input type="radio"/> Var / Yes <input type="radio"/> Yok / No	<input type="radio"/> Var / Yes <input type="radio"/> Yok / No			
Arıtılmamış Untreated	30.0 °C	Yok	Füme	<input checked="" type="radio"/> Var / Yes <input type="radio"/> Yok / No	<input type="radio"/> Var / Yes <input checked="" type="radio"/> Yok / No			
Deşarj Effluent	31.0 °C	Yok	Sarı	<input type="radio"/> Var / Yes <input checked="" type="radio"/> Yok / No	<input type="radio"/> Var / Yes <input checked="" type="radio"/> Yok / No			
Saha Kalite Kontrol Çalışması Field Testing QA/QC								
Parametre	Lab. Kontrol Numunesi Hedef Değer	Lab. Kontrol Numunesi Ölçülen Değer		Doğruluk [%]				
Parameter	Lab. Control Sample Target Value	Lab. Control Sample Measured Value		Accuracy				
pH	7.0	7.02						
Toplam Klor / Total Chlorine								
Diğer Gözlemler / Other Observations: işletmede arıtma marcuitten sürekli giriş ve çıkış olmaktadır. Çibökte numune alma borusu ve debi metre bulunmamaktadır.								
İlave Yorumlar (ör., kullanılan kısaltmalar, alternatif olarak ölçülen debi ve okumalar, vb.) Additional Comments (e.g., abbreviations used, alternatively measured flow and readings, etc.): - Giriş ünitesinde zaman zaman köpük oluşumu gözlemlenmiştir.								



## SAMPLING PROTOCOL (PAGE 3 OF 3)



Form LG.469/30.05.2023/Rev.1

## ZDHC İzleme / Monitoring

**ZDHC Atıksu Numune Alımı - Firma Onayı** ZDHC Wastewater Sampling - Facility Confirmation

Atıksu numuneleri firmanın normal üretim düzeni ve atıksu deşarjı kapsamında alınmıştır. Aşağıda belirtilen numune alım personeli sahada bulunarak numuneleri toplamıştır.

The Wastewater samples have been collected under the facility's normal production scale and wastewater flow rate. The sampler listed below was on-site and collected the samples.

**Numune Alım Personeli (Ad-Soyad & E-mail Adresi)**

Sampling Person (Name &amp; E-mail Address):

Irsin Aydoğan  
detox.turkey@intertek.com

**Numune Alım Personeli ZDHC Akreditasyon Numarası**

Sampler's ZDHC Accreditation No.:

ZDHC-A-22-E-0001068-REIDE-56090

**Firma İsmi**

Facility Name:

Zafer Tekstil

**Firma Temsilcisi Ad-Soyad**

Facility's Representative Name:

Mehmet Örgören

**Numune Alım Personeli İmza**

Sampler's Signature:

**Firma Temsilcisi İmza ve Firma Kasesi**

Facility's Representative Signature and Stamp:

Sanayci Mehmet A.Ş.  
4. Organize Sanayi Bölgesi, 3007 Cad. No:4 GAZİANTEP  
Tel: +90 342 337 12 96 - Fax: +90 342 337 12 14  
ŞEHİTKAMİL V.D. 996 001 7147 - SIC. NO: 13594





Testing period: From 28/09/2023 to 05/10/2023

\*\*\*\*\*

End of report

This report is made solely on the basis of your instructions and/or information and materials supplied. Results refer only to samples received in the lab. It is not intended to be a recommendation for any particular course of action. Intertek does not accept a duty of care or any other responsibility to any person other than the Client in respect of this report and only accepts liability to the Client insofar as is expressly contained in the terms and conditions governing Intertek's provision of services to you. Intertek makes no warranties or representations either express or implied with respect to this report save as provided for in those terms and conditions. We have aimed to conduct the Review on a diligent and careful basis and we do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise, except in the event of our gross negligence or wilful misconduct.

