



Test Report: (7224)108-0136

Report Date: June 3, 2024

Factory Company Name: AKKUS TEKSTIL SAN. TIC. A.S. MARDIN ISLETMESI

Factory Address: MARDIN ORGANIZE SANAYI BOLGESI 1. BULVAR FIKRET GUVEN CAD. 19. SK. NO:11  
D:2, 47060 ARTUKLU/MARDIN

Sampling Method & Description:

Sampling Method & Description:	Sample Type	Result
I001) Untreated wastewater	Grab	Navy Blue Liquid
I002) Effluent	-	Not tested
I003) Sludge	-	Not tested
I004) Leachate	-	Not tested
I005) Incoming water	-	Not tested

Discharge Type: **Indirect Discharge without Pretreatment**

On-site ETP / Pretreatment: No Homgenization Tank & Holding Time: No

Discharge Destination: MARDIN ORGANIZED INDUSTRIAL ZONE

Permit Validation Date: 23.03.2026

Conventional, Anions & Heavy Metals Overall Category: Meet discharge criteria ZDHC MRSL Parameters: Detected

Sludge Parameters: Not applicable

Sample Pick Up Date: May 9, 2024 Sampler Number: ZDHC-A-22-E-C001068-R2340-7ACE3

Test Period: May 13,2024 to June 03,2024

Parameter(s) exceeded maximum holding time: Not exceeded

**Remark**

The results of this report shall not be used for any regulatory compliance purposes.

Type of Process:	<b>Textile</b>	Average total industrial wastewater generated:	<b>Equal or more than 15m3/day</b>
Sludge Disposal Pathway:	Not applicable		
Type of Sludge:	Not applicable		

General enquiry and invoicing:  
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Report reviewed by:

Hasan Altıngül, Operation Manager – CS &amp; Support

Report approved by:

Firdevs Elikara, SCM Technical Lead

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Bureau Veritas Consumer Products Services, Inc.

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**Result Summary - ZDHC MRSL Wastewater Parameters**

Test Items	Untreated wastewater	Effluent	Incoming water
1A) AP and APEOs	ND	NR	NR
1B) Anti-Microbials & Biocides	ND		NR
1C) Chlorinated Parafins	ND		NR
1D) Chlorobenzenes and Chlorotoluenes	D		NR
1E) Chlorophenols	ND		NR
1F) DMFa	ND		NR
1G) Dyes - Carcinogenic or Equivalent Concern	ND		NR
1H) Dyes - Disperse (Sensitising)	ND		NR
1I) Dyes - Navy Blue Colourant	ND		NR
1J) Flame Retardants	ND		NR
1K) Glycols / Glycol Ethers	ND		NR
1L) Halogenated Solvents	ND		NR
1M) Organotin Compounds	ND		NR
1N) Other / Miscellaneous Chemicals	ND		NR
1O) PFCs	ND		NR
1P) Phthalates	ND		NR
1Q) PAHs	D		NR
1R) Restricted Aromatic Amines	ND		NR
1S) UV Absorbers	ND		NR
1T) VOC	ND		NR



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**Result Summary - ZDHC Heavy Metals, Conventional and Anions Wastewater Parameters**

Test Items	Untreated wastewater	Effluent	Incoming water
Antimony	NR		NR
Chromium (VI)	Meet		NR
Barium	NR		NR
Selenium	NR		NR
Tin	NR		NR
Arsenic	Meet		NR
Total Chromium	NR		NR
Cobalt	NR		NR
Cadmium	Meet		NR
Copper	NR		NR
Lead	Meet		NR
Nickel	NR		NR
Silver	NR		NR
Zinc	NR		NR
Mercury	Meet		NR
pH			
Temperature difference			
E.coli			
Colour		NR	
Persistent Foam			
Wastewater Flowrate			
Ammonium-Nitrogen			
AOX			
BOD <sub>5</sub>			
COD			
DO			
Oil & Grease	NR		NR
Total Phenols / Phenol Index			
Total Chlorine			
TDS			
Total Nitrogen			
Total Phosphorus			
TSS			
Chloride			
Cyanide, total			
Sulfate			
Sulfide			
Sulfite			



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**Result Summary - ZDHC Sludge Parameters**

Test Items	Sludge	Leachate
Antimony	NR	NR
Arsenic		NR
Barium		NR
Cadmium		NR
Cobalt		NR
Copper		NR
Lead		NR
Nickel		NR
Selenium		NR
Silver		NR
Total Chromium		NR
Zinc		NR
Chromium (VI)		NR
Mercury		NR
Cyanide		NR
pH		
% Solids		
Paint Filter Test		
Fecal Coliform		
AP and APEOs		
PAHs		
Chlorotoluenes		

## Note / Key:

Meet	=	Meet Foundational Limit / Meet Discharge Criteria
<b>Not Meet</b>	=	Exceed Foundational Limit / Exceed Discharge Criteria
NR	=	Not requested / Not required
NA	=	Not applicable
<b>D</b>	=	Detected
ND	=	Not detected
Refer to result	=	Legal parameter(s) and/or parameter(s) requested by factory, please refer to test result



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**Test Result - ZDHC MRSL Parameters**

Test Parameters	Results of Test Items					Requirements [Textile]		
	I001 (µg/L)	I002 (µg/L)	I003 <sup>#</sup> (mg/kg)	I004 <sup>#</sup> (mg/L)	I005 (µg/L)	Wastewater (µg/L)	Sludge <sup>#</sup> (mg/kg)	Leachate <sup>#</sup> -
<b>1A) AP and APEOs: including all isomers</b>								
NPEO	ND	NR	NR	NR	NR	5	0,4	-
NP, mixed isomers	ND				NR			
OPEO	ND				NR			
OP, mixed isomers	ND				NR			
<b>1B) Anti-Microbials &amp; Biocides</b>								
o-Phenylphenol (+salts)	ND	NR	NR	NR	NR	100	-	-
Triclosan	ND				NR			
Permethrin	ND				NR			
<b>1C) Chlorinated Parafins</b>								
MCCPs (C14-C17)	ND	NR	NR	NR	NR	500	-	-
SCCPs (C10-C13)	ND				NR			
<b>1D) Chlorobenzenes and Chlorotoluenes</b>								
1,2-dichlorobenzene	0.555	NR	NR	NR	NR	0,2	-	-
Other isomers of mono-, di-, tri-, tetra-, penta- and hexa- chlorobenzene	ND				NR			
Other isomers of mono-, di-, tri-, tetra- and penta- chlorotoluene	ND				NR			
<b>1E) Chlorophenols</b>								
2-chlorophenol	ND	NR	NR	NR	NR	0,5	-	-
3-chlorophenol	ND				NR			
4-chlorophenol	ND				NR			
2,3-dichlorophenol	ND				NR			
2,4-dichlorophenol	ND				NR			
2,5-dichlorophenol	ND				NR			
2,6-dichlorophenol	ND				NR			
3,4-dichlorophenol	ND				NR			
3,5-dichlorophenol	ND				NR			
2,3,4-trichlorophenol	ND				NR			
2,3,5-trichlorophenol	ND				NR			
2,3,6-trichlorophenol	ND				NR			
2,4,5-trichlorophenol	ND				NR			
2,4,6-trichlorophenol	ND				NR			
3,4,5-trichlorophenol	ND				NR			
2,3,5,6-tetrachlorophenol	ND				NR			
2,3,4,6-tetrachlorophenol	ND				NR			
2,3,4,5-tetrachlorophenol	ND	NR						
Pentachlorophenol (PCP)	ND	NR						
<b>1F) N,N-di-methylformamide (DMFa)</b>								
Dimethyl formamide; N,N-dimethylformamide (DMFa) <sup>a</sup>	ND	NR	NR	NR	NR	1000	-	-

a = Report only for mock leather

#Limit refers to the chosen ZDHC sludge disposal pathway in Table 4 in accordance with the ZDHC Wastewater Guidelines.



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**Test Result - ZDHC MRSL Parameters (continued)**

Test Parameters	Results of Test Items					Requirements [Textile]		
	I001 (µg/L)	I002 (µg/L)	I003 <sup>#</sup> (mg/kg)	I004 <sup>#</sup> (mg/L)	I005 (µg/L)	Wastewater (µg/L)	Sludge <sup>#</sup> (mg/kg)	Leachate <sup>#</sup> -
<b>1G) Dyes - Carcinogenic or Equivalent Concern</b>								
Basic violet 3 with >0.1% of Michler's Ketone	ND				NR	500	-	-
C.I. Acid Red 26	ND				NR			
C.I. Acid Violet 49	ND				NR			
C.I. Basic Blue 26 (with Michler's Ketone >0/1%)	ND				NR			
C.I. Basic Green 4 (Malachite Green Chloride)	ND				NR			
C.I. Basic Green 4 (Malachite Green Oxalate)	ND				NR			
C.I. Basic Green 4 (Malachite Green)	ND				NR			
C.I. Basic Red 9	ND	NR	NR	NR	NR			
C.I. Basic Violet 14	ND				NR			
C.I. Direct Black 38	ND				NR			
C.I. Direct Blue 6	ND				NR			
C.I. Direct Red 28	ND				NR			
C.I. Disperse Blue 1	ND				NR			
C.I. Disperse Blue 3	ND				NR			
Disperse Orange 11	ND				NR			
<b>1H) Dyes - Disperse (Allergenic)</b>								
Disperse Blue 102	ND				NR	50	-	-
Disperse Blue 106	ND				NR			
Disperse Blue 124	ND				NR			
Disperse Blue 26	ND				NR			
Disperse Blue 35 (CAS 12222-75-2)	ND				NR			
Disperse Blue 35 (CAS 56524-77-7)	ND				NR			
Disperse Blue 7	ND				NR			
Disperse Brown 1	ND				NR			
Disperse Orange 1	ND				NR			
Disperse Orange 3	ND	NR	NR	NR	NR			
Disperse Orange 37/59/76	ND				NR			
Disperse Red 1	ND				NR			
Disperse Red 11	ND				NR			
Disperse Red 17	ND				NR			
Disperse Yellow 1	ND				NR			
Disperse Yellow 3	ND				NR			
Disperse Yellow 39	ND				NR			
Disperse Yellow 49	ND				NR			
Disperse Yellow 9	ND				NR			
<b>1I) Dyes - Navy Blue Colourant</b>								
Component 1: C39H23Cl-CrN7O12S 2Na	ND				NR	500	-	-
Component 2: C46H-30CrN10O20S2 3Na	ND	NR	NR	NR	NR			

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	I001 (µg/L)	I002 (µg/L)	I003 <sup>#</sup> (mg/kg)	I004 <sup>#</sup> (mg/L)	I005 (µg/L)	Wastewater (µg/L)	Sludge <sup>#</sup> (mg/kg)	Leachate <sup>#</sup> -
<b>1J) Flame Retardants</b>								
2,2-bis(bromomethyl)-1,3-propanediol (BBMP)	ND	NR	NR	NR	NR	25	-	-
Dis(2,3-dibromopropyl) phosphate (BIS)	ND				NR			
Decabromophenyl ether (DecaBDE)	ND				NR			
Hexabromocyclodecane (HBCDD)	ND				NR			
Octabromodiphenyl ether (OctaBDE)	ND				NR			
Pentabromodiphenyl ether (PentaBDE)	ND				NR			
Polybromobiphenyls (PBB)	ND				NR			
Tetrabromobisphenol A (TBBPA)	ND				NR			
Tris-(2-chloro-1-methylethyl) phosphate (TCPP)	ND				NR			
Tris(1-aziridinyl)phosphone oxide (TEPA)	ND				NR			
Tris(1,3-dichloro-isopropyl) phosphate (TDCP)	ND				NR			
Tris(2-chloroethyl) phosphate (TCEP)	ND				NR			
Tris(2,3-dibromopropyl) phosphate (TRIS)	ND				NR			
Decabromobiphenyl (DecaBB)	ND				NR			
Dibromobiphenyls (DiBB)	ND				NR			
Octabromobiphenyls (OctaBB)	ND				NR			
Dibromopropylether	ND				NR			
Heptabromodiphenyl ether (HeptaBDE)	ND				NR			
Hexabromodiphenyl ether (HexaBDE)	ND				NR			
Monobromobiphenyls (MonoBB)	ND				NR			
Monobromodiphenylethers (MonoBDEs)	ND				NR			
Nonabromobiphenyls (NonaBB)	ND				NR			
Nonabromodiphenyl ether (NonaBDE)	ND				NR			
Tetrabromodiphenyl ether (TetraBDE)	ND				NR			
Tribromophenylethers (TriBDEs)	ND				NR			
Boric acid <sup>b</sup>	ND				NR	100		
Diboron trioxide <sup>b</sup>	ND				NR			
Disodium octaborate <sup>b</sup>	ND				NR			
Disodium tetraborate anhydrous <sup>b</sup>	ND	NR						
Tetraboron disodium heptaoxide, hydrate <sup>b</sup>	ND	NR	NR					
<b>1K) Glycols / Glycol Ethers</b>								
2-ethoxyethanol	ND	NR	NR	NR	NR	50	-	-
2-ethoxyethyl acetate	ND				NR			
2-methoxyethanol	ND				NR			
2-methoxyethylacetate	ND				NR			
2-methoxypropylacetate	ND				NR			
Bis(2-methoxyethyl)-ether	ND				NR			
Ethylene glycol dimethyl ether	ND				NR			
Triethylene glycol dimethyl ether	ND				NR			
<b>1L) Halogenated Solvents</b>								
1,2-dichloroethane	ND	NR	NR	NR	NR	1	-	-
Methylene chloride	ND				NR			
Tetrachloroethylene	ND				NR			
Trichloroethylene	ND				NR			

b = Limit refers to elemental boron, not the salt.

#Limit refers to the chosen ZDHC sludge disposal pathway in Table 4 in accordance with the ZDHC Wastewater Guidelines.



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**Test Result - ZDHC MRSL Parameters (continued)**

Test Parameters	Results of Test Items					Requirements [Textile]								
	I001 (µg/L)	I002 (µg/L)	I003 <sup>#</sup> (mg/kg)	I004 <sup>#</sup> (mg/L)	I005 (µg/L)	Wastewater (µg/L)	Sludge <sup>#</sup> (mg/kg)	Leachate <sup>#</sup> -						
<b>1M) Organotin Compounds</b>														
Dipropyltin compounds (DPT)	ND	NR	NR	NR	NR	0,01	-	-						
Mono, di-, and tri-butyltin derivatives	ND													
Mono, di-, and tri-methyltin derivatives	ND													
Mono, di-, and tri-octyltin derivatives	ND													
Mono, di-, and tri-phenyltin derivatives	ND													
Tetrabutyltin compounds (TeBT)	ND													
Tripropyltin compounds (TPT)	ND													
Tetraoctyltin compounds (TeOT)	ND													
Tricyclohexyltin (TCyHT)	ND													
Tetraethyltin compounds (TeET)	ND													
<b>1N) Other / Miscellaneous Chemicals</b>														
AEEA [2-(2-aminoethylamino)ethanol]	ND				NR				NR	NR	NR	500	-	-
Bisphenol A	ND	10												
Thiourea	ND	50												
Quinoline	ND	100												
Borate, zinc salt <sup>c</sup>	ND	-												
Silica (used in sand blasting) <sup>d</sup>	NR													
<b>1O) Perfluorinated and Polyfluorinated Chemicals (PFCs)</b>														
Perfluorooctane sulfonate (PFOS) and related substances, Perfluorooctanoic acid (PFOA)	ND	NR	NR	NR	NR	0,01	-	-						
Perfluorooctanoic acid (PFOA) related substances	ND				1									
<b>1P) Phthalates - including all other esters of ortho-phthalic acid</b>														
1,2-benzenedicarboxylic acid, di-C6-8 branched and linear alkyl esters, C7-rich (DIHP)	ND	NR	NR	NR	NR	10	-	-						
1,2-benzenedicarboxylic acid, di-C7-11 branched and linear alkyl esters (DHNUP)	ND													
Bis(2-methoxyethyl)phthalate (DMEP)	ND													
Butyl benzyl phthalate (BBP)	ND													
Di-cyclohexyl phthalate (DCHP)	ND													
Di-iso-decyl phthalate (DIDP)	ND													
Di-iso-octyl phthalate (DIOP)	ND													
Di-iso-butyl phthalate (DIBP)	ND													
Di-iso-nonyl phthalate (DINP)	ND													
Di-n-hexyl phthalate (DnHP)	ND													
Di-n-octyl phthalate (DNOP)	ND													
Di-n-pentylphthalates	ND													
Di-n-propyl phthalate (DPRP)	ND													
Di(ethylhexyl) phthalate (DEHP)	ND													
Dibutyl phthalate (DBP)	ND													
Diethyl phthalate (DEP)	ND													
Diisopentylphthalates	ND													
Dinonyl phthalate (DNP)	ND													

c = Limit refers to elemental boron and/or zinc, not the salt.

d = Not a ZDHC wastewater parameter, and not required to test this parameter as this is related to sand blasting

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**Test Result - ZDHC MRSL Parameters (continued)**

Test Parameters	Results of Test Items					Requirements [Textile]		
	I001 (µg/L)	I002 (µg/L)	I003 <sup>#</sup> (mg/kg)	I004 <sup>#</sup> (mg/L)	I005 (µg/L)	Wastewater (µg/L)	Sludge <sup>#</sup> (mg/kg)	Leachate <sup>#</sup> -
<b>1Q) Polycyclic Aromatic Hydrocarbons (PAHs)</b>								
Acenaphthene	ND	NR	NR	NR	NR	1	0,2	-
Acenaphthylene	ND							
Anthracene	ND							
Benzo[a]anthracene	ND							
Benzo[a]pyrene (BaP)	ND							
Benzo[b]fluoranthene	ND							
Benzo[e]pyrene	ND							
Benzo[ghi]perylene	ND							
Benzo[j]fluoranthene	ND							
Benzo[k]fluoranthene	ND							
Chrysene	ND							
Dibenz[a,h]anthracene	ND							
Fluoranthene	ND							
Fluorene	ND							
Indeno[1,2,3-cd]pyrene	ND							
Naphthalene	1.5							
Phenanthrene	ND							
Pyrene	ND							
<b>1R) Restricted Aromatic Amines (Cleavable from Azo-colourants)</b>								
2-naphthylamine	ND	NR	NR	NR	NR	0,1	-	-
2-naphthylammoniumacetate	ND							
2,4-xylidine	ND							
2,4,5-trimethylaniline	ND							
2,4,5-trimethylaniline hydrochloride	ND							
2,6-xylidine	ND							
3,3'-dichlorobenzidine	ND							
3,3-dimethoxybenzidine	ND							
3,3-dimethylbenzidine	ND							
4-aminoazobenzene	ND							
4-aminodiphenyl	ND							
4-chloro-o-toluidine	ND							
4-chloro-o-toluidinium chloride	ND							
4-chloroaniline	ND							
4-methoxy-m-phenylene diammonium sulphate; 2,4-diaminoanisole sulphate	ND							
4-methoxy-m-phenylenediamine	ND							
4-methyl-m-phenylenediamine	ND							
4,4-methylene-bis-(2-chloro-aniline)	ND							
4,4-methylenedi-o-toluidine	ND							
4,4-methylenedianiline	ND							
4,4-oxydianiline	ND							
4,4-thiodianiline	ND							
5-nitro-o-toluidine	ND							
6-methoxy-m-toluidine	ND							
Benzidine	ND							
o-aminoazotoluene	ND							
o-anisidine	ND							
o-toluidine	ND							

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**Test Result - ZDHC MRSL Parameters (continued)**

Test Parameters	Results of Test Items					Requirements [Textile]		
	I001 (µg/L)	I002 (µg/L)	I003 <sup>#</sup> (mg/kg)	I004 <sup>#</sup> (mg/L)	I005 (µg/L)	Wastewater (µg/L)	Sludge <sup>#</sup> (mg/kg)	Leachate <sup>#</sup> -
<b>1S) UV Absorbers</b>								
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl) phenol (UV-350)	ND	NR	NR	NR	NR	100	-	-
2-(2H-benzotriazol-2-yl)-4,6- ditertpentylphenol (UV-328)	ND				NR			
2-benzotriazol-2-yl-4,6-di-tert- butylphenol (UV-320)	ND				NR			
2,4-Di-tert-butyl-6-(5- chlorobenzotriazole-2-yl) phenol (UV-327)	ND				NR			
<b>1T) Volatile Organic Compounds (VOC)</b>								
Benzene	ND	NR	NR	NR	NR	1	-	-
m-cresol	ND				NR			
o-cresol	ND				NR			
p-cresol	ND				NR			
Xylene	ND				NR			
Toluene <sup>a</sup>	ND				NR			

a = Report only for mock leather

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**Test Result - ZDHC Heavy Metals Parameters**

Test Parameters	Unit			Results of Test Items					Requirements [Textile]				
	Wastewater	Sludge	Leachate	I001	I002	I003#	I004#	I005	Wastewater			Sludge	
									Foundational	Progressive	Aspirational	Discharge Limit	Sludge Threshold Values
<b>ZDHC Heavy Metals</b>													
Antimony	mg/L	mg/kg	mg/L	NR	NR	NR	NR	NR	0,1	0,05	0,01	-	12
Chromium (VI)	mg/L	mg/kg	mg/L	ND				NR	0,05	0,005	0,001	Not Applicable	50
Barium	mg/L	mg/kg	mg/L	NR				NR	Sample & Report			-	700
Selenium	mg/L	mg/kg	mg/L	NR				NR	Sample & Report			-	10
Tin	mg/L	-	-	NR				NR	Sample & Report			-	-
Arsenic	mg/L	mg/kg	mg/L	ND				NR	0,05	0,01	0,005	Not Applicable	10
Total Chromium	mg/L	mg/kg	mg/L	NR				NR	0,2	0,1	0,05	-	100
Cobalt	mg/L	mg/kg	mg/L	NR				NR	0,05	0,02	0,01	-	1600
Cadmium	mg/L	mg/kg	mg/L	ND				NR	0,1	0,05	0,01	Not Applicable	3
Copper	mg/L	mg/kg	mg/L	NR				NR	1	0,5	0,25	-	200
Lead	mg/L	mg/kg	mg/L	ND				NR	0,1	0,05	0,01	Not Applicable	10
Nickel	mg/L	mg/kg	mg/L	NR				NR	0,2	0,1	0,05	-	70
Silver	mg/L	mg/kg	mg/L	NR				NR	0,1	0,05	0,005	-	100
Zinc	mg/L	mg/kg	mg/L	NR				NR	5	1	0,5	-	1000
Mercury	mg/L	mg/kg	mg/L	ND				NR	0,01	0,005	0,001	Not Applicable	1

#Limit refers to the chosen ZDHC sludge disposal pathway in Table 4 in accordance with the ZDHC Wastewater Guidelines.



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**Test Result - ZDHC Conventional and Anions Parameters**

Test Parameters	Unit			Results of Test Items					Requirements [Textile]					
	Wastewater	Sludge	Leachate	I001	I002	I003#	I004#	I005	Wastewater			Discharge Limit	Sludge Threshold Values	
									Foundational	Progressive	Aspirational			
<b>ZDHC Conventional</b>														
pH	pH									6 - 9				
Temparture difference	Δ °C									15	10	5		
E.coli	MPN/100-ml									126				
Colour (436 nm)	m <sup>-1</sup>									7	5	2		
Colour (525 nm)	m <sup>-1</sup>									5	3	1		
Colour (620 nm)	m <sup>-1</sup>									3	2	1		
Persistent Foam	-									No indication of Persistent Foam				
Wastewater Flowrate	m <sup>3</sup> /day									-				
Ammonium-Nitrogen	mg/L									10	1	0,5		
AOX	mg/L									3	0,5	0,1		
BOD <sub>5</sub>	mg/L	-								30	15	8		
COD	mg/L			NR	NR	NR	NR	NR		150	80	40		
DO	mg/L									Sample & Report				
Oil & Grease	mg/L									10	2	0,5		
Total Phenols / Phenol Index	mg/L									0,5	0,01	0,001		
Total Chlorine	mg/L									Sample & Report				
TDS	mg/L									20	10	5		
Total Nitrogen	mg/L									3	0,5	0,1		
Total Phosphorus	mg/L									50	15	5		
TSS	mg/L													
% Solids	-	%												
Paint Filter Test	-	-												
Fecal Coliform	-	MPN/g												
<b>ZDHC Anions</b>														
Chloride	mg/L	-	-							Sample & Report				
Cyanide, total	mg/L	mg/kg	-							0,2	0,1	0,05		
Sulfate	mg/L			NR	NR	NR	NR	NR		Sample & Report				
Sulfide	mg/L	-	-							0,5	0,5	0,01		
Sulfite	mg/L									2	0,5	0,2		

#Limit refers to the chosen ZDHC sludge disposal pathway in Table 4 in accordance with the ZDHC Wastewater Guidelines.



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**Appendix A - contract limit with CETP**

MARDİN OSB	
MARDİN ORGANİZE SANAYİ BÖLGESİ MÜDÜRLÜĞÜ	
DİŞARJ KALİTE KONTROL RUHSATI	
RUHSAT NO : 33	ADA/PARSEL: 121/10 PERSONEL SAYISI: 386 VARDİYA: 1 TARİH : 23/03/2023
MÜESSESE ADI	: Akkuy Tekstil San. ve Tic. A.Ş.
MÜESSESE ADRESİ	: Ofis OSB Mah. 19. Sok. No:11 Artuklu/Mardin
MÜESSESE SORUMLUSU	: İbrahim BATUK
ÜRETİM KONUSU	: Dokuma Kumaytan Mamul Hazır Giyim
Yukarıda adı geçen müessese, Eysel ve Endüstriyel Atık Sularını, MOSB deşarj limitlerini sađlama koşuluyla MOSB kanalizasyon ortamına deşarj yapabilecektir.	
<b>Aritma Üniteleri</b>	
<input type="checkbox"/> Hızara	<input type="checkbox"/> Piltiđayırma <input type="checkbox"/> Aktif çamur <input type="checkbox"/> Çamur yoğunlaştırıcı <input type="checkbox"/> Kum filtrəsi
<input type="checkbox"/> Kum tutucu	<input type="checkbox"/> Yumaklađırma <input type="checkbox"/> Damlatılmalı filtre <input type="checkbox"/> Çamur filtrasyon <input type="checkbox"/> Aktif karbon
<input type="checkbox"/> Nötralizasyon	<input type="checkbox"/> Oksidasyon <input type="checkbox"/> Anacrobik sistem <input type="checkbox"/> Çamur çiriltici <input type="checkbox"/> Ozon/UV
<input type="checkbox"/> Yađ ayırıcı	<input type="checkbox"/> Hidroksit çöküt <input type="checkbox"/> Nötr/Deñitir <input type="checkbox"/> Membran proses <input type="checkbox"/> Çöktürme
<input type="checkbox"/> Dengelenme havuzu	
<b>Kirletici Parametreler</b> : KOLARİMPELZSE,YAĞ VE GRES ,SULFİT,NİH-N,SERBEST KLORİT,KROMİ,S,K,K,Y Tablo 10-4)	
<b>Yardımcı Üniteler</b>	
Numune alma ünitesi	<input type="checkbox"/> var <input type="checkbox"/> yok (*)
Süreklidüşük kayıtlı sapatlılıđı debi ölçer	<input type="checkbox"/> var <input type="checkbox"/> yok (*)
Debi ile orantılı kompozit numune alma cihazı	<input type="checkbox"/> var <input type="checkbox"/> yok (*)
<b>Atık Su Geri Kazanım ve Kullanımı</b>	<input type="checkbox"/> var <input type="checkbox"/> yok (*)
Bu belge, Akkuy Tekstil San. ve Tic. A.Ş.'nin talebi üzerine verilmiş izimdir. Bu belge 23/03/2026 tarihine kadar geçerlidir. Teşris deşarj ettiđi atık sularındaki kirletici parametrelerden en az birinin limiti aşması halinde, Kirliđik Önlem Bedeli uygulanır.	
<p>Sadettin KILIÇ Çevre Mühendisi</p> <p>Koray FİRTİNA Bölge Müdürü</p>	



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**Appendix B - Sample Photos**

**I001) Sampling point**

N/S 37° 16' 47.8914" " E/W 40° 40' 38.172" "



**I001) Sampling location surrounding**

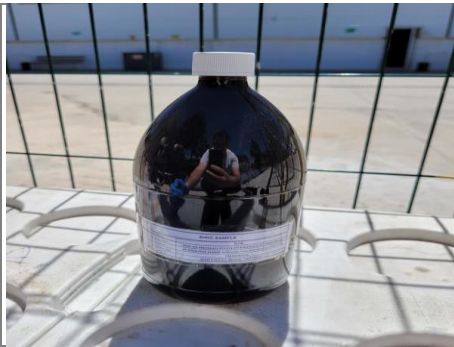
N/S 37° 16' 47.8914" " E/W 40° 40' 38.172" "



**I001) Labelled sample bottles**



**I001) Sample for phthalate test**



**I001) Sample packaging**





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**Appendix C - On-site Field Data Record Sheet**

<p><b>ZDHC Wastewater Sampling Field Data Form and Representative Sample Declaration</b></p>	CPSD-AN-00613-DATA 07
	Issue Date: February 20, 2024
	Version No.: 1
	Business Line: Analytical

Attach the completed field data form in the test report.

Facility Information	
Date of Sampling:	09.05.2024
Sample Number (ZDHC Composite Sample Code):	72241080136
Facility Name:	AKKUŞ TEKSTİL SAN. TİC. A.Ş. MARDİN İŞLETMESİ
Facility Address:	MARDİN ORGANİZE SANAYİ BÖLGESİ 1. BULVARI FIKRET GÜVEN CAD. 19 SK. NO :11, D:2, 47060 Arslanlı/Mardin, Turkey
Facility Type (tick all applicable):	<input type="checkbox"/> Dyeing & Finishing <input type="checkbox"/> Fabric Mill <input checked="" type="checkbox"/> Laundry, Washing and Finishing <input type="checkbox"/> Natural Leather processing <input type="checkbox"/> Printing <input type="checkbox"/> Synthetic Leather processing <input type="checkbox"/> Other (please specify):
Discharge Type (tick applicable):	<input type="checkbox"/> Direct discharge <input type="checkbox"/> with pre-treatment <input checked="" type="checkbox"/> Indirect discharge <input checked="" type="checkbox"/> without pre-treatment <input type="checkbox"/> Zero liquid discharge (ZLD) <input type="checkbox"/> with own ETP
Discharge Description:	<input type="checkbox"/> Discharge to environment (e.g. river, stream, sea etc.) <input type="checkbox"/> Other (please specify) <input checked="" type="checkbox"/> Sewage treatment plant
Discharge Volume:	<input checked="" type="checkbox"/> > 15m <sup>3</sup> per day <input type="checkbox"/> < 15m <sup>3</sup> per day

Sample Type and Details	
Sample Type	Sample Details
<input type="checkbox"/> Incoming Water	
<input checked="" type="checkbox"/> Untreated WW	<input checked="" type="checkbox"/> with equalisation tank (EQT) present Hydraulic Retention Time (HRT) (hours): <u>3h</u> <small>= volume of tank (m<sup>3</sup>) / flow rate (m<sup>3</sup>/h) if HRT &gt; 12h, grab sampling from EQT is allowed.</small>
<input type="checkbox"/> Effluent	<input type="checkbox"/> Direct <input type="checkbox"/> Indirect <small>Enter sampling frequency in page 2 and take field test measurements.</small> <small>Error sampling time(s) in page 2. No field test measurements required except on client's request.</small> <input type="checkbox"/> Facility has WWTP <input type="checkbox"/> Plant is in operating condition <input type="checkbox"/> with equalisation tank (EQT) present Hydraulic Retention Time (HRT) (hours): _____ <small>= volume of tank (m<sup>3</sup>) / flow rate (m<sup>3</sup>/h) if HRT &gt; 12h, grab sampling from EQT is allowed.</small>
<input type="checkbox"/> Sludge	Disposal Pathway (The pathway must be defined by the facility, if the facility cannot provide information, pathway "F" shall be assumed.) <input type="checkbox"/> A >1000°C off-site incineration <input type="checkbox"/> B Landfill with significant control <input type="checkbox"/> C Sludging products processed >1000°C <input type="checkbox"/> D Landfill with limited control <input type="checkbox"/> E Incineration/Building products processed >1000°C <input type="checkbox"/> F Landfill with no control <input type="checkbox"/> G Land application Sludge flux (weight/time) if applicable: _____

**ZDHC Wastewater Sampling - Facility Confirmation**

The wastewater samples have been collected under the facilities' normal production scale and wastewater flow rate. The sampler listed below was on-site and collected the samples. Sampling protocol for wastewater and sludge samples are in accordance with ZDHC SAP including appendix E. In no circumstances shall samples be taken during times when the production process is not running or the wastewater is diluted, for example due to heavy rainfall.

Facility Confirmation		Sampler Information	
Facility Name:	AKKUŞ TEKSTİL SAN. TİC. A.Ş. MARDİN İŞLETMESİ	Sampler's Name/ Email:	Alli Osman Abayrak / ali-osman.abayrak@bureauveritas.com
Facility Representative Name:	İdris Özhan	Sampler's ZDHC Accredited No.:	ZDHC-A-22-E-0001088-R2340-TACE3
Facility Representative Signature and Stamp:		Sampler's Signature:	
Date:	09.05.2024	Date:	09.05.2024

**AKKUŞ TEKSTİL SAN. TİC. A.Ş.**  
 Organize San. Böl. 1. Evler 1. Bölge Fikret Güven Cad. 19. Sk. No: 11 2. Arslanlı MARDİN  
 Tel: 0422 213 12 21-06 Faks: 213 12 00  
 Tic.Sic.No: Merkez-607 Mardin V.D. No: 031 055 1673



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**Appendix C - On-site Field Data Record Sheet (continued)**

ZDHC Wastewater Sampling Field Data Form and Representative Sample Declaration									
<div style="display: flex; justify-content: space-between;"> <div> <p><b>ZDHC Wastewater Sampling Field Data Form and Representative Sample Declaration</b></p> </div> <div> <p>CPSD-AN-00913-DATA 07</p> <p>Issue Date: _____</p> <p>Version No.: 1</p> <p>Business Line: Analytical</p> </div> </div>									
<b>ZDHC Wastewater Flow Device Dimensions</b>									
Measurement (cm)	Meter	Pipe (O)	Flume (U)	Wtr (V)					
Diameter	--								
Depth	--								
<b>ZDHC Wastewater Sampling Field Testing QA/QC</b>									
Parameter	Lab Control Sample (LCS) Known	Lab Control Sample (LCS) Measured	Accuracy (%)						
pH									
Total Chlorine									
<b>ZDHC Wastewater Sample Collection Field Test Measurements</b>									
<b>Incoming Sample Point</b>									
<input type="radio"/> Composite Sample <input type="radio"/> Grab Sample    Start Time: _____ Stop Time: _____									
Sampling Locations: GPS coordinates: Lat.: N / S    Long.: E / W									
Sampling Mode: <input type="radio"/> Manual <input type="radio"/> Autosampler - Sampling Device Description/ Owner:									
Sampling Time (Hours)	0	1	2	3	4	5	6	Average	
Recording time of discrete sample	---	---	---	---	---	---	---	---	
Colour (visual estimation):	---	---	---	---	---	---	---	---	
<b>Untreated Sample Point</b>									
<input type="radio"/> Composite Sample <input checked="" type="radio"/> Grab Sample    Start Time: <b>10:30</b> Stop Time: <b>11:30</b>									
Sampling Locations: GPS coordinates: Lat.: N / S    Long.: E / W									
Sampling Mode: <input checked="" type="radio"/> Manual <input type="radio"/> Autosampler - Sampling Device Description/ Owner:									
Sampling Time (Hours)	0	1	2	3	4	5	6	Average	
Recording time of discrete sample	<b>11:00</b>	---	---	---	---	---	---	---	
Colour (visual estimation):	<b>Very Blue</b>	---	---	---	---	---	---	---	
<b>Effluent Sample Point</b>									
<input type="radio"/> Composite Sample <input type="radio"/> Grab Sample    Start Time: _____ Stop Time: _____									
Sampling Locations: GPS coordinates: Lat.: N / S    Long.: E / W									
Sampling Mode: <input type="radio"/> Manual <input type="radio"/> Autosampler - Sampling Device Description/ Owner:									
Sampling Time (Hours)	0	1	2	3	4	5	6	Average	
Recording time of discrete sample	---	---	---	---	---	---	---	---	
Temperature (°C):	WW Discharge	---	---	---	---	---	---	---	
	Receiving Water	---	---	---	---	---	---	---	
pH		---	---	---	---	---	---	---	
Dissolved Oxygen (mg/L)		---	---	---	---	---	---	---	
Total Chlorine (mg/L)		---	---	---	---	---	---	---	
Persistent Foam (Yes/No)	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	
Wastewater Flow Meter (L/min)		---	---	---	---	---	---	---	
Alternate Measured Flow	Depth (cm)	---	---	---	---	---	---	---	
	Velocity (cm/sec)	---	---	---	---	---	---	---	
Colour (visual estimation):		---	---	---	---	---	---	---	
Volume collected (L)		---	---	---	---	---	---	---	
Total volume collected (L):	Collect 3.33-litres each hour for a total minimum volume of 20-litres								
<b>Sludge Sample Point</b>									
<input type="radio"/> Composite Sample    Start Time: _____ Stop Time: _____									
Sampling Locations: GPS coordinates: Lat.: N / S    Long.: E / W									
Sampling Mode: <input type="radio"/> Manual <input type="radio"/> Autosampler - Sampling Device Description/ Owner:									
Sampling Time (Hours)	0	1	2	3	4	5	6	Average	
Recording time of discrete sample	---	---	---	---	---	---	---	---	
Colour (visual estimation):	---	---	---	---	---	---	---	---	
<b>Comments/ Other Observations</b>									





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**Appendix D - Test methods, reporting limits and CAS numbers**

Test Parameters	Unit		CAS No.	LOQ		Test methods
	Wastewater	Sludge		Wastewater	Sludge	
<b>1A) AP and APEOs: including all isomers</b>						
Nonylphenol ethoxylates (NPEO)	µg/L	mg/kg	9016-45-9, 26027-38-3, 37205-87-1, 68412-54-4, 127087-87-0	5	0,4	NP/OP: ISO 18857-2 (modified dichloromethane extraction) or ASTM D7065 (GC-MS or LC-MS(-MS), OPEO/NPEO (n>2): ASTM D7742 ISO 18857-2
Nonylphenol (NP), mixed isomers			104-40-5, 11066-49-2, 25154-52-3, 84852-15-3			
Octylphenol ethoxylates (OPEO)			9002-93-1, 9036-19-5, 68987-90-6			
Octylphenol (OP), mixed isomers			140-66-9, 1806-26-4, 27193-28-8			
<b>1B) Anti-Microbials &amp; Biocides</b>						
o-Phenylphenol (+salts)	µg/L	-	90-43-7	100	-	USEPA 8270E Solvent extraction, derivatisation with KOH, acetic anhydride followed by GC-MS BS EN 12673-1999
Triclosan			3380-34-5			
Permethrin			Multiple	500		
<b>1C) Chlorinated Paraffins</b>						
Medium-chain chlorinated paraffins (MCCPs) (C14-C17)	µg/L	-	85535-85-9	500	-	EPA 3510 and analyzed by ISO18219- 2:2021 Method for MCCP with GC-MS(NCI) or LC-MS/MS
Short-chain chlorinated paraffins (SCCPs) (C10-C13)			85535-84-8	25		
<b>1D) Chlorobenzenes and Chlorotoluenes</b>						
1,2-dichlorobenzene	µg/L	-	95-50-1	0,2	-	USEPA 8260D, 8270E, Purge and Trap, Head Space, Dichloromethane extraction followed by GC-MS
Other isomers of mono-, di-, tri-, tetra-, penta-, and hexa- chlorobenzene			Multiple			
Other isomers of mono-, di-, tri-, tetra-, and penta- chlorotoluene						
<b>1E) Chlorophenols</b>						
2-chlorophenol	µg/L	-	95-57-8	0,5	-	USEPA 8270E Solvent extraction, derivatisation with KOH, acetic anhydride followed by GC-MS, BS EN 12673-1999 the procedure of solvent extraction and derivatization are included
3-chlorophenol			108-43-0			
4-chlorophenol			106-48-9			
2,3-dichlorophenol			576-24-9			
2,4-dichlorophenol			120-83-2			
2,5-dichlorophenol			583-78-8			
2,6-dichlorophenol			87-65-0			
3,4-dichlorophenol			95-77-2			
3,5-dichlorophenol			591-35-5			
2,3,4-trichlorophenol			15950-66-0			
2,3,5-trichlorophenol			933-78-8			
2,3,6-trichlorophenol			933-75-5			
2,4,5-trichlorophenol			95-95-4			
2,4,6-trichlorophenol			88-06-2			
3,4,5-trichlorophenol			609-19-8			
2,3,5,6-tetrachlorophenol			935-95-5			
2,3,4,6-tetrachlorophenol			58-90-2			
2,3,4,5-tetrachlorophenol			4901-51-3			
Pentachlorophenol (PCP)			87-86-5			
<b>1F) Dimethyl Formamide (DMFa)</b>						
Dimethyl formamide; N,N-dimethylformamide (DMFa) <sup>a</sup>	µg/L	-	68-12-2	1000	-	EPA 8015, EPA 8270E

a = Report only for mock leather



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**Appendix D - Test methods, reporting limits and CAS numbers (continued)**

Test Parameters	Unit		CAS No.	LOQ		Test methods
	Wastewater	Sludge		Wastewater	Sludge	
<b>1G) Dyes - Carcinogenic or Equivalent Concern</b>						
Basic Violet 3 with >0.1% of Michler's Ketone	µg/L	-	548-62-9	500	-	Liquid extraction, LC-MS
C.I. Acid Red 26			3761-53-3			
C.I. Acid Violet 49			1694-09-3			
C.I. Basic Blue 26 (with Michler's Ketone > 0.1%)			2580-56-5			
C.I. Basic Green 4 (Malachite Green Chloride)			569-64-2			
C.I. Basic Green 4 (Malachite Green Oxalate)			2437-29-8			
C.I. Basic Green 4 (Malachite Green)			10309-95-2			
C.I. Basic Red 9			569-61-9			
C.I. Basic Violet 14			632-99-5			
C.I. Direct Black 38			1937-37-7			
C.I. Direct Blue 6			2602-46-2			
C.I. Direct Red 28			573-58-0			
C.I. Disperse Blue 1			2475-45-8			
C.I. Disperse Blue 3			2475-46-9			
Disperse Orange 11			82-28-0			
<b>1H) Dyes - Disperse (Allergenic)</b>						
Disperse Blue 102	µg/L	-	12222-97-8	50	-	Liquid extraction, LC-MS
Disperse Blue 106			12223-01-7			
Disperse Blue 124			61951-51-7			
Disperse Blue 26			3860-63-7			
Disperse Blue 35			12222-75-2			
			56524-77-7			
Disperse Blue 7			3179-90-6			
Disperse Brown 1			23355-64-8			
Disperse Orange 1			2581-69-3			
Disperse Orange 3			730-40-5			
Disperse Orange 37/59/76			13301-61-6			
Disperse Red 1			2872-52-8			
Disperse Red 11			2872-48-2			
Disperse Red 17			3179-89-3			
Disperse Yellow 1			119-15-3			
Disperse Yellow 3			2832-40-8			
Disperse Yellow 39			12236-29-2			
Disperse Yellow 49			54824-37-2			
Disperse Yellow 9	6373-73-5					
<b>1I) Dyes - Navy Blue Colourant</b>						
Component 1: C39H23Cl-CrN7O12S 2Na	µg/L	-	118685-33-9	500	-	Liquid extraction, LC-MS
Component 2: C46H-30CrN10O20S2 3Na			Not Allocated			



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**Appendix D - Test methods, reporting limits and CAS numbers (continued)**

Test Parameters	Unit		CAS No.	LOQ		Test methods
	Wastewater	Sludge		Wastewater	Sludge	
<b>1J) Flame Retardants</b>						
2,2-bis(bromomethyl)- 1,3-propanediol (BBMP)	µg/L	-	3296-90-0	25	-	USEPA 8270E, ISO 22032, USEPA 527 and USEPA 8321B Dichloromethane extraction GC-MS or LC-MS(-MS)
Bis(2,3-dibromopropyl) phosphate (BIS)			5412-25-9			
Decabromodiphenyl ether (DecaBDE)			1163-19-5			
Hexabromocyclodecane (HBCDD)			3194-55-6			
Octabromodiphenyl ether (OctaBDE)			32536-52-0			
Pentabromodiphenyl ether (PentaBDE)			32534-81-9			
Polybromobiphenyls (PBB)			59536-65-1			
Tetrabromobisphenol A (TBBPA)			79-94-7			
Tris-(2-chloro-1-methylethyl)phosphate (TCPP)			13674-84-5			
Tris(1-aziridinyl)phosphine oxide (TEPA)			545-55-1			
Tris(1,3-dichloro-isopropyl)phosphate (TDCP)			13674-87-8			
Tris(2-chloroethyl)phosphate (TCEP)			115-96-8			
Tris(2,3-dibromopropyl)-phosphate (TRIS)			126-72-7			
Decabromobiphenyl (DecaBB)			13654-09-6			
Dibromobiphenyls (DiBB)			Multiple			
Octabromobiphenyls (OctaBB)			Multiple			
Dibromopropylether			21850-44-2			
Heptabromodiphenyl ether (HeptaBDE)			68928-80-3			
Hexabromodiphenyl ether (HexaBDE)			36483-60-0			
Monobromobiphenyls (MonoBB)			Multiple			
Monobromodiphenylethers (MonoBDEs)			Multiple			
Nonabromobiphenyls (NonaBB)			63936-56-1			
Nonabromodiphenyl ether (NonaBDE)			40088-47-9			
Tetrabromodiphenyl ether (TetraBDE)			Multiple			
Tribromodiphenylethers (TriBDEs)			Multiple			
Boric acid <sup>b</sup>	10043-35-3, 11113-50-1	100	-	Determined as total boron via ICP		
Diboron trioxide <sup>b</sup>	1303-86-2					
Disodium octaborate <sup>b</sup>	12008-41-2					
Disodium tetraborate anhydrous <sup>b</sup>	1303-96-4, 1330-43-4					
Tetraboron disodium heptaoxide, hydrate <sup>b</sup>	12267-73-1					
<b>1K) Glycols / Glycol Ethers</b>						
2-ethoxyethanol	µg/L	-	110-80-5	50	-	USEPA 8270E Liquid extraction, LC-MS GC-MS
2-ethoxyethyl acetate			111-15-9			
2-methoxyethanol			109-86-4			
2-methoxyethylacetate			110-49-6			
2-methoxypropylacetate			70657-70-4			
Bis(2-methoxyethyl)-ether			111-96-6			
Ethylene glycol dimethyl ether			110-71-4			
Triethylene glycol dimethyl ether			112-49-2			
<b>1L) Halogenated Solvents</b>						
1,2-dichloroethane	µg/L	-	107-06-2	1	-	USEPA 8260D Headspace GC-MS or Purge and trap GC-MS
Methylene chloride			75-09-2			
Tetrachloroethylene			127-18-4			
Trichloroethylene			79-01-6			

b = Limit refer to elemental boron, not the salt.



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**Appendix D - Test methods, reporting limits and CAS numbers (continued)**

Test Parameters	Unit		CAS No.	LOQ		Test methods
	Wastewater	Sludge		Wastewater	Sludge	
<b>1M) Organotin Compounds</b>						
Dipropyltin compounds (DPT)	µg/L	-	Multiple	0,01	-	ISO 17353 Derivatisation with NaB (C <sub>2</sub> H <sub>5</sub> ) <sub>4</sub> GC-MS
Mono-, di- and tri-butyltin derivatives						
Mono-, di- and tri-methyltin derivatives						
Mono-, di- and tri-octyltin derivatives						
Mono-, di- and tri-phenyltin derivatives						
Tetrabutyltin compounds (TeBT)						
Tripropyltin Compounds (TPT)						
Tetraoctyltin compounds (TeOT)						
Tricyclohexyltin (TCyHT)						
Tetraethyltin Compounds (TeET)						
<b>1N) Other/Miscellaneous Chemicals</b>						
AEEA [2-(2-aminoethylamino)ethanol]	µg/L	-	111-41-1	500	-	Liquid extraction, LC-MSMS
Bisphenol A			80-05-7	10		
Thiourea			62-56-6	50		Liquid extraction, LC-MS
Quinoline			91-22-5	50		
Borate, zinc salt <sup>c</sup>			12767-90-7	100		Determine as total boron and total zinc via ICP
Silica (Used in sand blasting) <sup>d</sup>			14464-46-1	NA		Not a ZDHC Wastewater parameter
<b>1O) Perfluorinated and Polyfluorinated Chemicals (PFCs)</b>						
Perfluorooctane sulfonate (PFOS) and related substances, Perfluorooctanoic acid (PFOA)	µg/L	-	Multiple	0,01	-	PFCs: EPA 537:2020 FTOH: BS EN 12673-1999, EPA 8270 PFCs: LC-MSMS
Perfluorooctanoic acid (PFOA) related substances				1		FTOH: GC-MS Derivatisation with acetic anhydride followed by GC-MS
<b>1P) Phthalates - including all other esters of ortho-phthalic acid</b>						
1,2-benzenedicarboxylic acid, di-C6-8 branched and liearalkyl esters , C7-rich (DIHP)	µg/L	-	71888-89-6, 84777-06-0	10	-	USEPA 8270E, ISO 18856 Dichloromethane extraction GC-MS
1,2-benzenedicarboxylic acid, di-C7-11 branched and liearalkyl esters (DHNUP)			68515-42-4, 68515-50-4			
Bis(2-methoxyethyl)phthalate (DMEP)			117-82-8			
Butyl benzyl phthalate (BBP)			85-68-7			
Di-cyclohexyl phthalate (DCHP)			84-61-7			
Di-iso-decyl phthalate (DIDP)			26761-40-0			
Di-iso-octyl phthalate (DIOP)			27554-26-3			
Di-iso-butyl phthalate (DIBP)			84-69-5			
Di-iso-nonyl phthalate (DINP)			28553-12-0			
Di-n-hexyl phthalate (DnHP)			84-75-3			
Di-n-octyl phthalate (DNOP)			117-84-0			
Di-n-pentylphthalates			131-18-0			
Di-n-propyl phthalate (DPRP)			131-16-8			
Di(ethylhexyl) phthalate (DEHP)			117-81-7			
Dibutyl phthalate (DBP)			84-74-2			
Diethyl phthalate (DEP)			84-66-2			
Diisopentylphthalates			605-50-5			
Dinonyl phthalate (DNP)			84-76-4			

c = Limit refers to elemental boron and/or zinc, not the salt.

d = Not required to test this parameter as this is related to sand blasting



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**Appendix D - Test methods, reporting limits and CAS numbers (continued)**

Test Parameters	Unit		CAS No.	LOQ		Test methods				
	Wastewater	Sludge		Wastewater	Sludge					
<b>1Q) Polycyclic Aromatic Hydrocarbons (PAHs)</b>										
Acenaphthene	µg/L	mg/kg	83-32-9	1	0,2	USEPA 8270E DIN 38407-39 Solvent extraction GC-MS				
Acenaphthylene			208-96-8							
Anthracene			120-12-7							
Benzo[a]anthracene			56-55-3							
Benzo[a]pyrene (BaP)			50-32-8							
Benzo[b]fluoranthene			205-99-2							
Benzo[e]pyrene			192-97-2							
Benzo[ghi]perylene			191-24-2							
Benzo[j]fluoranthene			205-82-3							
Benzo[k]fluoranthene			207-08-9							
Chrysene			218-01-9							
Dibenz[a,h]anthracene			53-70-3							
Fluoranthene			206-44-0							
Fluorene			86-73-7							
Indeno[1,2,3-cd]pyrene			193-39-5							
Naphthalene			91-20-3							
Phenanthrene			85-01-8							
Pyrene	129-00-0									
<b>1R) Restricted Aromatic Amines (Cleavable from Azo-colourants)</b>										
2-naphthylamine	µg/L	-	91-59-8	0,1	-	Reduction step with sodium dithionite, solvent extraction EPA 8270				
2-naphthylammoniumacetate			553-00-4							
2,4-xylidine			95-68-1							
2,4,5-trimethylaniline			137-17-7							
2,4,5-trimethylaniline hydrochloride			21436-97-5							
2,6-xylidine			87-62-7							
3,3'-dichlorobenzidine			91-94-1							
3,3-dimethoxybenzidine			119-90-4							
4-aminoazobenzene			60-09-3							
4-aminodiphenyl			92-67-1							
4-chloro-o-toluidine			95-69-2							
4-chloro-o-toluidinium chloride			3165-93-3							
4-chloroaniline			106-47-8							
4-methoxy-m-phenylene diammonium sulphate;			39156-41-7							
2,4-diaminoanisole sulphate			615-05-4							
4-methoxy-m-phenylenediamine			95-80-7							
4-methyl-m-phenylenediamine			101-14-4							
4,4-methylene-bis-(2-chloro-aniline)			838-88-0							
4,4-methylenedi-o-toluidine			101-77-9							
4,4-methylenedianiline			101-80-4							
4,4-thiodianiline			139-65-1							
5-nitro-o-toluidine			99-55-8							
6-methoxy-m-toluidine			120-71-8							
Benzidine			92-87-5							
o-aminoazotoluene			97-56-3							
o-anisidine			90-04-0							
o-toluidine			95-53-4							
Reduction step with sodium dithionite, solvent extraction EPA 8270E and ISO 14362-1 GC/MS and LC/MS/MS										



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**Appendix D - Test methods, reporting limits and CAS numbers (continued)**

Test Parameters	Unit		CAS No.	LOQ		Test methods
	Wastewater	Sludge		Wastewater	Sludge	
<b>1S) UV Absorbers</b>						
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl) phenol (UV-350)	µg/L	-	36437-37-3	100	-	USEPA 8270 ISO 22032, USEPA 527 and USEPA 8321B. Dichloromethane extraction GC-MS or LC-MS(-MS)
2-(2H-benzotriazol-2-yl)-4,6- ditertpentylphenol (UV-328)			25973-55-1			
2-benzotriazol-2-yl-4,6-di-tert- butylphenol (UV-320)			3846-71-7			
2,4-Di-tert-butyl-6-(5- chlorobenzotriazole-2-yl) phenol (UV-327)			3864-99-1			
<b>1T) Volatile Organic Compounds (VOC)</b>						
Benzene	µg/L	-	71-43-2	1	-	ISO 11423-1 Headspace or Purge and trap GC-MS USEPA 8260D Add ISO 20595 Static headspace for determination of VOC in  ISO 11423-1 Headspace or Purge and trap GC-MS EPA 8270 BS EN 12673-1999  ISO 11423-1 Headspace or Purge and trap GC-MS USEPA 8260D  HJ 1067 or EPA 8260D or ISO 11423-1
m-cresol			108-39-4			
o-cresol			95-48-7			
p-cresol			106-44-5			
Xylene			1330-20-7			
Toluene <sup>a</sup>			108-88-3			

a = Report only for mock leather



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**Appendix D - Test methods, reporting limits and CAS numbers (continued)**

Test Parameters	Unit		CAS No.	LOQ		Test methods
	Wastewater & Leachate	Sludge		Wastewater	Sludge	
<b>Heavy Metals</b>						
Antimony	mg/L	mg/kg	7440-36-0	0,01	5	With reference to EPA 3015A, 6020A, 200.8, 6020B, 3051A and ISO 17294-2 and analyzed by ICP-MS With reference to EPA 1311 and HJ/T 300 for leachate
Chromium (VI)			18540-29-9	0,001	20	
Barium			7440-39-3	1	200	
Selenium			7782-49-2	1	5	
Tin			7440-31-5	1	-	
Arsenic			7440-38-2	0,005	5	
Total Chromium			7440-47-3	0,05	50	
Cobalt			7440-48-4	0,01	400	
Cadmium			7440-43-9	0,01	1	
Copper			7440-50-8	0,25	50	
Lead			7439-92-1	0,01	5	
Nickel			7440-02-0	0,05	20	
Silver			7440-22-4	0,005	50	
Zinc			7440-66-6	0,5	400	
Mercury			7439-97-6	0,001	1	
<b>Conventional</b>						
pH	pH	pH		6 - 9		With reference to ISO 10523, EPA 150.2, APHA 4500-H+
Temperature difference	°C			-		USEPA 170.1 or GB/T 13195
E.coli	MPN/100-ml			126		-
Colour	m <sup>-1</sup>			2;1;1		ISO 7887 (Method A and B)
Persistent Foam	-			-		-
Wastewater Flowrate	m <sup>3</sup> /day			-		-
Ammonium-Nitrogen	mg/L			0,5		ISO 11732, ISO 7150, USEPA 350.1, APHA 4500 NH <sup>3</sup> -N, HJ 535 or HJ 536
AOX	mg/L			0,1		ISO 9562, EN ISO 9563, USEPA 1650, HJ.T 83-2001
Biochemical Oxygen Demand 5-days concentration (BOD <sub>5</sub> )	mg/L			8		ISO 5815-1 & -2, EN1899-1, USEPA 405.1, APHA 5210B or HJ 505
Chemical Oxygen Demand (COD)	mg/L			40		ISO 6060, USEPA 410.4, APHA 5220D or GB/T 11914
Dissolved Oxygen (DO)	mg/L			-		ISO 5814, EPA 360.1 or HJ 506
Oil & Grease	mg/L			0,5		ISO 9377-2, USEPA 1664 or HJ 637
Total Phenols / Phenol Index	mg/L			0,001		ISO 14402, APHA 5530B, C, D or HJ 503
Total Chlorine	mg/L			0,1		ISO 7393-2, EPA 330.5 or HJ 586
Total Dissolved Solids (TDS)	mg/L			5		APHA 2540C, GB/T 5750.4
Total Nitrogen	mg/L			5		ISO 5663, ISO 29411, USEPA 351.2, APHA 4500P-J, APHA 4500N-C/ HJ 636 or GB 11891
Total Phosphorus	mg/L			0,1		ISO 11885, ISO 6878, USEPA 365.4, APHA 4500P-J or GB/T 11893
Total Suspended Solids (TSS)	mg/L			5		ISO 11923, USEPA 160.2, APHA 2540D or GB/T 11901
% Solids	-	%		-		USEPA 160.3, HJ 613
Paint Filter Test	-	-		-		EPA SW-846 or EPA 9095B
Fecal Coliform	-	bacteria/100m		-		EPA 1681



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**Appendix D - Test methods, reporting limits and CAS numbers (continued)**

Test Parameters	Unit		CAS No.	LOQ		Test methods
	Wastewater & Leachate	Sludge		Wastewater	Sludge	
<b>Anions</b>						
Chloride	mg/L	-	-	-	-	ISO 10304-1, ISO 15923-1, USEPA 300, HJ 84-2016, IS 3025 (part 32)
Cyanide, total		mg/kg		0,05	20	ISO 6703-1 & 2, ISO 14403-1 & 2, USEPA 335.2, APAH 4500-CN or HJ 484
Sulfate		-		-	-	ISO 10304-1, ISO 15923-1, USEPA 300, HJ 84-2016, IS 3025 (part 24)
Sulfide		-		0,01	-	ISO 10530, SM 4500-S2-D, E, G or I, GB/T 16489 or IS 3025 (part 29), HJ 1226-2021
Sulfite		-		0,2	-	ISO 10304-3, SM 4500-SO32-C or HJ 84-2016

END OF REPORT