

**TEST REPORT (TEXTILES)** 

Report Date: 20/09/2024

Factory's name : FAKHRUDDIN TEXTILE MILLS LTD

Factory's address : GHARGARIA, MASTER BARI, KEWA, SREEPUR, GAZIPUR, BANGLADESH

Type of wastewater discharge: Direct discharge

On-site Wastewater treatment plant: With wastewater treatment plant

Average total industrial wastewater ≥ 15m3/day

generated:

Date and time of the beginning of sampling: 08/09/2024, 09:45
Date and time of the end of sampling: 08/09/2024, 16:20
Date received sample: 08/09/2024

Testing period: From 08/09/2024 to 20/09/2024

Arrival temperature at laboratory: 6 °C

Sample type:

Sample / Untreated wastewater Dark purple, Grab sample at 9:45

Sampling location: N 24.19189, E 90.43681

Sample / Effluent Light purple, composite sample at

10:20; 11:20; 12:20; 13:20; 14:20; 15:20; 16:20 Sampling location: N 24.19188, E 90.43638

Sample / Sludge Grey, composite sample at 14:30

Sampling location: N 24.19210, E 90.43618

Sampling laboratory: ITS Labtest Bangladesh Ltd. Testing laboratory: ITS Labtest Bangladesh Ltd.

ZDHC sampler accreditation certification

number:

ZDHC-A-22-E-C001068-R2280-609FB

Local legal standard name<sup>[a]</sup>: The Environment Conservation Rules, 2023; Government of the

People's Republic of Bangladesh; Ministry of Environment, Forest

Number: BGDT24123256

and Climate Change

Local legal standard no. [a]: The Environment Conservation Rules, 2023; Government of the

People's Republic of Bangladesh; Ministry of Environment, Forest

and Climate Change

Parameters (ZDHC WWSG V2.1, Table 2-3)

exceeded local regulation:

No exceeded

Discharge permit provided: Yes

\*

Tests conducted:

As requested by a brand program, for details refer to attached page(s).

\*



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# **Summary of test results:**

Wastewater / MRSL – Test items	Testing period	Untreated Wastewater	
Alkylphenol ethoxylates / Alkylphenols	From 12/09/2024 to	ND	
(APEOs/APs)	12/09/2024		
Anti-Microbials & Biocides	From 14/09/2024 to	ND	
Anti Wildiosidis & Siocides	15/09/2024		
Chlorinated Parafins	From 09/09/2024 to	ND	
emormated rarams	10/09/2024	110	
Chlorobenzenes and Chlorotoluenes	From 14/09/2024 to	ND	
emorosenzenes una emorotoraches	15/09/2024		
Chlorophenols	From 14/09/2024 to	ND	
emer opinement	15/09/2024		
Dimethyl Formamide (DMFa) (*)	From 09/09/2024 to	ND	
Dimetriyi i ormaniae (Divira) ( )	10/09/2024		
Dyes – Carcinogenic or Equivalent Concern	From 12/09/2024 to	ND	
byes careinogenie or Equivalent concern	12/09/2024	ND	
Dyes – Disperse (Allergenic)	From 12/09/2024 to	ND	
byes bisperse (Allergerile)	12/09/2024	ND	
Dyes – Navy Blue Colourant	From 12/09/2024 to	ND	
byes – Navy Bide Colodiant	12/09/2024	ND	
Flame Retardants	From 14/09/2024 to	ND	
атпе кесагоаптs 	15/09/2024	ND	
Glycols / Glycol Ethers	From 14/09/2024 to	ND	
diyedis / diyedi Ethers	15/09/2024	ND	
Halogenated solvents	From 14/09/2024 to	ND	
Halogellateu solvelits	15/09/2024	ND	
Organotin compounds	From 14/09/2024 to	ND	
Organicum compounds	15/09/2024	ND	
Other/Miscellaneous Chemicals (^)	From 12/09/2024 to	ND	
Other/iviiscenarieous chemicais (**)	12/09/2024	ND	
Perfluorinated & Polyfluorinated chemicals	From 12/09/2024 to	ND	
(PFCs)	12/09/2024	ND	
Phthalatos (Ortho phthalatos)	From 09/09/2024 to	ND	
Phthalates (Ortho-phthalates)	10/09/2024	ND	
Polycyclic aromatic hydrocarbons (PAHs)	From 14/09/2024 to	ND	
Polycyclic aromatic hydrocarbons (PAHs)	15/09/2024	ND	
Restricted Aromatic Amines (Cleavable from	From 09/09/2024 to	ND	
Azo- colourants)	10/09/2024	ND	
UV Absorbers	From 09/09/2024 to	ND	
O A ADSOLDELS	10/09/2024	ND	
Volatile Organic Compounds (VOC)	From 14/09/2024 to	ND	
Volatile Organic Compounds (VOC)	15/09/2024	ND	



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Wastewater / Heavy metals - Test	Testing paried	Effluent		
items	Testing period	Foundational	Progressive	Aspirational
Antimony	From 14/09/2024 to			Meet
Antimony	16/09/2024			ivieet
Chromium (VI)	From 14/09/2024 to			Meet
Cili Offilia (VI)	16/09/2024			ivieet
Barium	From 14/09/2024 to	Por	oort only, refer d	lata
Dallulli	16/09/2024	Kej	Jort Offiy, refer d	lata
Selenium	From 14/09/2024 to	Por	aart anly rafar d	lata
Selenium	16/09/2024	Kel	port only, refer d	ldld
Tin	From 14/09/2024 to	Por	oort only, refer d	lata
1111	16/09/2024	Kel	ort only, refer o	ldld
Arsenic	From 14/09/2024 to			Meet
Arsenic	16/09/2024			Meet
Chromium (total)	From 14/09/2024 to			Moot
Chromium (total)	16/09/2024			Meet
Cobalt	From 14/09/2024 to			Meet
Copail	16/09/2024			ivieet
Cadmium	From 14/09/2024 to			Meet
Caumum	16/09/2024			Meet
Connor	From 14/09/2024 to			Moot
Copper	16/09/2024			Meet
Lead	From 14/09/2024 to			Meet
Leau	16/09/2024			ivieet
Nickel	From 14/09/2024 to			Meet
Nickei	16/09/2024			Meet
Silver	From 14/09/2024 to			Moot
Silvel	16/09/2024			Meet
7inc	From 14/09/2024 to			Moot
Zinc	16/09/2024			Meet
Morcury	From 14/09/2024 to			Moot
Mercury	16/09/2024			Meet



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Wastewater / Conventional	Tanking maniant		Effluent	
parameters - Test items	Testing period	Foundational	Progressive	Aspirational
(fl	From 08/09/2024 to		N.4 +	-
pH <sup>[f]</sup>	08/09/2024	Meet		
Towns yet used ifference [f]	From 08/09/2024 to	N1 / A	N1 /A	N1/A
Temperature difference <sup>[f]</sup>	08/09/2024	N/A	N/A	N/A
E.coli	From 08/09/2024 to		Moot	
E.COII	13/09/2024		Meet	
Colour	From 09/09/2024 to	Meet		
Coloui	09/09/2024	Meet		
Persistent foam <sup>[f]</sup>	From 08/09/2024 to		N/A	
reisistent ioani	08/09/2024		IN/A	
Wastewater flowrate <sup>[f]</sup>	From 08/09/2024 to	Ro	port only, refer d	lata
wastewater nowrate	08/09/2024	ive)	Joil Offiy, Terer o	
Ammonium-Nitrogen	From 12/09/2024 to			Meet
Ammonium-widogen	12/09/2024			Wieet
AOX	From 20/09/2024 to			Meet
AUA	20/09/2024			Wicci
Biochemical Oxygen Demand	From 09/09/2024 to			Meet
(BOD <sub>5</sub> )	14/09/2024			Wicci
Chemical Oxygen Demand (COD)	From 10/09/2024 to			Meet
Chemical Oxygen Demana (COD)	10/09/2024			IVICET
Dissolved Oxygen (DO) [f]	From 08/09/2024 to	Report only, refer data		lata
Dissolved Oxygen (DO)	08/09/2024	Kej	oore orny, refer o	
Oil & Grease	From 12/09/2024 to			Meet
on a crease	12/09/2024			Wicet
Total Phenols / Phenol Index	From 10/09/2024 to			Meet
Total Friends / Friends mack	10/09/2024			111000
Total Chlorine <sup>[f]</sup>	From 08/09/2024 to	Rei	Report only, refer data	
	08/09/2024			
Total Dissolved Solids (TDS)	From 09/09/2024 to	Rei	oort only, refer d	lata
	09/09/2024			1
Total Nitrogen	From 12/09/2024 to			Meet
	12/09/2024			
Total Phosphorus	From 14/09/2024 to	Meet		
	16/09/2024			
Total Suspended Solids (TSS)	From 09/09/2024 to		Meet	
()	09/09/2024			

Masternator / Aniena Testitores	Tasting posical	Effluent		
Wastewater / Anions - Test items	Testing period	Foundational	Progressive	Aspirational
Chloride	From 12/09/2024 to	Report only, refer data		lata
	12/09/2024			
Cyanide, total	From 09/09/2024 to 09/09/2024			Meet
Sulfate	From 12/09/2024 to 12/09/2024	Report only, refer data		lata



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Sulfide	From 12/09/2024 to 12/09/2024		Meet
Sulfite	From 09/09/2024 to 09/09/2024	Meet	

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# Sludge – Disposal Pathways

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Sludge / Heavy Metals - Test items Testing period		Sludge (Total)	Sludge (Leachate)
Antimony	From 14/09/2024 to	Meet	
Antimony	16/09/2024	IVICEL	
Arsenic	From 14/09/2024 to	Meet	
Alseliic	16/09/2024	IVICEL	
Barium	From 14/09/2024 to	Meet	
Barram	16/09/2024	IVICCU	
Cadmium	From 14/09/2024 to	Meet	
Caaman	16/09/2024	IVICCU	
Cobalt	From 14/09/2024 to	Meet	
Cobait	16/09/2024	IVICEL	
Copper	From 14/09/2024 to	Meet	
Сорреі	16/09/2024	IVICEL	
Lead	From 14/09/2024 to	Meet	
Lead	16/09/2024	IVICEL	
Nickel	From 14/09/2024 to	Meet	
Nickei	16/09/2024	IVICEL	
Selenium	From 14/09/2024 to	Meet	
Selemum	16/09/2024	ivieet	
Silver	From 14/09/2024 to	Meet	
Silvei	16/09/2024	ivieet	
Chromium (total)	From 14/09/2024 to	Meet	
Cili Officiali (total)	16/09/2024	ivieet	
Zinc	From 14/09/2024 to	Meet	
ZIIIC	16/09/2024	ivieet	
Chromium VI	From 14/09/2024 to	Meet	
Cirolillulii Vi	16/09/2024	ivieet	
Mercury	From 14/09/2024 to	Meet	
iviercury	16/09/2024	ivieet	

Sludge / Anion - Test items	Testing period	Sludge
Cyanide	From 09/09/2024 to 09/09/2024	Meet
Sludge / Conventional parameters - Test items	Testing period	Sludge
рН	From 09/09/2024 to 09/09/2024	Meet
% Solids	From 09/09/2024 to 09/09/2024	Report only, refer data



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Paint filter test	From 09/09/2024 to 09/09/2024	Report only, refer data
Faecal coliform	From 08/09/2024 to 12/09/2024	Report only, refer data

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Sludge / MRSL - Test items	Testing period	Sludge
Alkylphenol (AP) and Alkylphenol Ethoxylates	From 12/09/2024 to	Report only, refer data
(APEOs): including all isomers	12/09/2024	
Polycyclic Aromatic Hydrocarbons (PAHs)	From 14/09/2024 to	Report only, refer data
Folycyclic Alomatic Hydrocarbons (FAHS)	15/09/2024	Report only, refer data
Chlavatalyanas	From 14/09/2024 to	Domont only, refer date
Chlorotoluenes	15/09/2024	Report only, refer data

Note	e:	
ND	=	Not detected (less than ZDHC reporting limit for MRSL parameters) / Not detected (less than lab reporting limit
		for other parameters)
D	=	Detected
N/A	=	Not applicable (Out of scope according to ZDHC WWSG v2.1)
NT	=	Not tested (Did not test according to applicant's request)
(T)	=	If sample temperature is greater than 8°C and less than 10°C when received from the laboratory.
(TT)	=	If sample temperature is exceeded 10°C when received from the laboratory.
@	=	Maximum holding time exceeded.
(*)	=	Sample and report for mock leather.
(^)		Borate, zinc salt would report ND when total boron or total zinc less than 100 μg/L.
[f]	=	On-site test by sampler.
[a]	=	The local legal standard name and legal standard no. is referenced to discharge permit (or contractual agree
		by CETP) that provided by applicant.

This report shows the test results of the environmental samples of the above factory which were collected on a specific date and time. The results of this report shall not be used for any regulatory compliance purposes.

# Remarks:

- For untreated wastewater, the equalization tank has an average holding time of greater than 12 hours.
- Not possible to take receiving water temperature and persistent foam due to underground discharge wastewater piping and directly discharged treated wastewater to government drain or sewerage connected drain.
- Temperature of Effluent is 34 °C.

**Authorized By** 

For ITS Labtest Bangladesh Ltd. [Testing - Dhaka]

Mominul Islam

Head of Analytical, Softlines



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### Sample / Wastewater

### 1. Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers

NP/OP: With reference to ASTM D7742, modified from ISO 18218 (LC-MS Analysis). OPEO/NPEO (n>2): With reference to ASTM D7742, modified from ISO 18254 (LC-MS Analysis).

Chemical substances	CAS no.	ZDHC reporting limit (µg/L)	Untreated wastewater	Unit
Nonylphenol ethoxylates (NPEO)	9016-45-9; 26027-38-3; 37205-87-1; 68412-54-4; 127087-87-0	5	ND	μg/L
Nonylphenol (NP), mixed isomers	104-40-5; 11066-49-2; 25154-52-3; 84852-15-3	5	ND	μg/L
Octylphenol ethoxylates (OPEO)	9002-93-1; 9036-19-5; 68987-90-6	5	ND	μg/L
Octylphenol (OP), mixed isomers	140-66-9; 1806-26-4; 27193-28-8	5	ND	μg/L

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# 2. <u>Anti- Microbials & Biocides</u>

OPP, Triclosan: With reference to USEPA 8270E Solvent extraction, derivatization with KOH, acetic anhydride followed by GC-MS analysis; with reference to modified from EN 17134 (GC-MS Analysis), an alternative method of solvent extraction and derivatization are included.

Permethrin: With reference to USEPA 8270E Solvent extraction, followed by GC-MS analysis; With reference to ISO 14154 without derivatization and determination by GC-MS analysis.

Chemical substances	CAS no.	ZDHC reporting limit (µg/L)	Untreated wastewater	Unit
o-Phenylphenol (+salts)	90-43-7	100	ND	μg/L
Triclosan	3380-34-5	100	ND	μg/L
Permethrin	Multiple	500	ND	μg/L



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# 3. Chlorinated Parafins

For MCCP: With reference to analysis by ISO18219-2 with GC-MS-NCI analysis. For SCCP: With reference to analysis by ISO18219-1 with GC-MS-NCI analysis.

Chemical substances	CAS no.	ZDHC reporting limit (μg/L)	Untreated wastewater	Unit
Medium-chain Chlorinated paraffins (MCCPs) (C14-C17)	85535-85-9	500	ND	μg/L
Short-chain Chlorinated paraffin (C10 – C13)	85535-84-8	25	ND	μg/L

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# 4. <u>Chlorobenzenes and Chlorotoluenes</u>

With reference to modified from ISO 17137 (GC-MS Analysis), USEPA 8270E, Purge and Trap, Head Space, Dichloromethane extraction followed by GC-MS analysis.

Chemical substances	CAS no.	ZDHC reporting limit (μg/L)	Untreated wastewater	Unit
1,2-Dichlorobenzene	95-50-1	0.2	ND	μg/L
Other isomers of mono-, di-, tri-, tetra-, penta- and hexa- Chlorobenzene and mono-, di-, tri-, tetra- and penta-chlorotoluene	Multiple	0.2	ND	μg/L

# 5. <u>Chlorophenols</u>

With reference to US EPA 8270E solvent extraction, derivatization with KOH, acetic anhydride followed by GC-MS; with reference to modified from DIN 50009 (GC-MS Analysis), solvent extraction and derivatization are included.

Chemical substances	CAS no.	ZDHC reporting limit (μg/L)	Untreated wastewater	Unit
2-Chlorophenol	95-57-8	0.5	ND	μg/L
3-Chlorophenol	108-43-0	0.5	ND	μg/L
4-Chlorophenol	106-48-9	0.5	ND	μg/L
2,3-Dichlorophenol	576-24-9	0.5	ND	μg/L
2,4-Dichlorophenol	120-83-2	0.5	ND	μg/L
2,5-Dichlorophenol	583-78-8	0.5	ND	μg/L
2,6-Dichlorophenol	87-65-0	0.5	ND	μg/L
3,4-Dichlorophenol	95-77-2	0.5	ND	μg/L
3,5- Dichlorophenol	591-35-5	0.5	ND	μg/L
2,3,4-Trichlorophenol	15950-66-0	0.5	ND	μg/L
2,3,5-Trichlorophenol	933-78-8	0.5	ND	μg/L
2,3,6-Trichlorophenol	933-75-5	0.5	ND	μg/L
2,4,5-Trichlorophenol	95-95-4	0.5	ND	μg/L
2,4,6-Trichlorophenol	88-06-2	0.5	ND	μg/L
3,4,5-Trichlorophenol	609-19-8	0.5	ND	μg/L
2,3,4,5-Tetrachlorophenol	4901-51-3	0.5	ND	μg/L



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2,3,4,6-Tetrachlorophenol	58-90-2	0.5	ND	μg/L
2,3,5,6-Tetrachlorophenol	935-95-5	0.5	ND	μg/L
Pentachlorophenol (PCP)	87-86-5	0.5	ND	μg/L

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# 6. <u>Dimethyl Formamide (DMFa)</u>

With reference to modified from EN ISO 16189 (GC-MS Analysis), EPA 8270E with GC-MS Analysis.

Chemical substances	CAS no.	ZDHC reporting limit (μg/L)	Untreated wastewater	Unit
Dimethyl formamide; N,N-dimethylformamide (DMFa) (*)	68-12-2	1000	ND	μg/L

<sup>(\*) =</sup> Sample and report for mock leather.

# 7. <u>Dyes – Carcinogenic or Equivalent Concern</u>

With reference to modified DIN 54231 (LC-MS Analysis) By Liquid extraction.

Chemical substances	CAS no.	ZDHC	Untreated	Unit
Chemical substances	CAS IIO.	reporting limit (μg/L)	wastewater	
Basic violet 3 with >0.1% of Michler's Ketone	548-62-9	500	ND	μg/L
C.I. Acid Red 26	3761-53-3	500	ND	μg/L
C.I. Acid Violet 49	1694-09-3	500	ND	μg/L
C.I. Basic Blue 26 (with Michler's Ketone >	2580-56-5	500	ND	ua/I
0.1%)	2380-30-3	300	ND	μg/L
C.I. Basic Green 4 (malachite green chloride)	569-64-2	500	ND	μg/L
C.I. Basic Green 4 (malachite green oxalate)	2437-29-8	500	ND	μg/L
C.I. Basic Green 4 (malachite green)	10309-95-2	500	ND	μg/L
C.I. Basic Red 9	569-61-9	500	ND	μg/L
C.I. Basic Violet 14	632-99-5	500	ND	μg/L
C.I. Direct Black 38	1937-37-7	500	ND	μg/L
C.I. Direct Blue 6	2602-46-2	500	ND	μg/L
C.I. Direct Red 28	573-58-0	500	ND	μg/L
C.I. Disperse Blue 1	2475-45-8	500	ND	μg/L
C.I. Disperse Blue 3	2475-46-9	500	ND	μg/L
Disperse Orange 11	82-28-0	500	ND	μg/L



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# 8. <u>Dyes – Disperse (Allergenic)</u>

With reference to modified DIN 54231 (LC-MS Analysis) By Liquid extraction.

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

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# 9. <u>Dyes – Navy Blue Colourant</u>

With reference to modified DIN 54231 (LC-MS Analysis) By Liquid extraction.

Chemical substances	CAS no.	ZDHC Reporting limit (μg/L)	Untreated wastewater	Unit
Component 1: C39H23Cl-CrN7O12S 2Na	118685-33- 9	500	ND	μg/L
Component 2: C46H-30CrN10O20S2 3Na	Not Allocated	500	ND	μg/L



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# 10. Flame retardants

Other flame retardant substances: With reference to USEPA 8270E, modified from ISO 17881-1 (GC-MS Analysis), modified from ISO 17881-2 (GC-MS Analysis), Dichloromethane extraction GC-MS or LC-MS analysis.

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Borate salt: Determined as total boron via ICP analysis.

Chemical substances	CAS no.	ZDHC reporting limit (µg/L)	Untreated wastewater	Unit
2,2-Bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0	25	ND	μg/L
Bis(2,3-dibromopropyl) phosphate (BIS)	5412-25-9	25	ND	μg/L
Decabromodiphenyl ether (DecaBDE)	1163-19-5	25	ND	μg/L
Hexabromocyclododecane (HBCDD)	3194-55-6	25	ND	μg/L
Octabromodiphenyl ehter (OctaBDE)	32536-52-0	25	ND	μg/L
Pentabromodiphenyl ether (PentaBDE)	32534-81-9	25	ND	μg/L
Polybromobiphenyls (PBBs)	59536-65-1	25	ND	μg/L
Tetrabromobisphenol A (TBBPA)	79-94-7	25	ND	μg/L
Tris-(2-chloro-1-methylethyl) phosphate (TCPP)	13674-84-5	25	ND	μg/L
Tris(1-aziridinyl) phosphine oxide) (TEPA)	545-55-1	25	ND	μg/L
Tris(1,3-dichloro-isopropyl) phosphate (TDCP)	13674-87-8	25	ND	μg/L
Tris(2-chloroethyl) phosphate (TCEP)	115-96-8	25	ND	μg/L
Tris(2,3-dibromopropyl) phosphate (TRIS)	126-72-7	25	ND	μg/L
Decabromobiphenyl (DecaBB)	13654-09-6	25	ND	μg/L
Dibromobiphenyls (DiBB)	Multiple	25	ND	μg/L
Octabromobiphenyls (OctaBB)	Multiple	25	ND	μg/L
Dibromopropylether	21850-44-2	25	ND	μg/L
Heptabromodiphenyl ether (HeptaBDE)	68928-80-3	25	ND	μg/L
Hexabromodiphenyl ether (HexaBDE)	36483-60-0	25	ND	μg/L
Monobromobiphenyls (MonoBB)	Multiple	25	ND	μg/L
Monobromodiphenylethers (MonoBDEs)	Multiple	25	ND	μg/L
Nonabromobiphenyls (NonaBB)	Multiple	25	ND	μg/L
Nonabromodiphenyl ether (NonaBDE)	63936-56-1	25	ND	μg/L
Tetrabromodiphenyl ether (TetraBDE)	40088-47-9	25	ND	μg/L
Tribromodiphenylethers (TriBDEs)	Multiple	25	ND	μg/L
Boric acid **	10043-35-3 11113-50-1	100 in Boron	ND	μg/L
Diboron trioxide **	1303-86-2	100 in Boron	ND	μg/L
Disodium octaborate **	12008-41-2	100 in Boron	ND	μg/L
Disodium tetraborate anhydrous **	1303-96-4 1330-43-4	100 in Boron	ND	μg/L
Tetraboron disodium heptaoxide, hydrate **	12267-73-1	100 in Boron	ND	μg/L

<sup>\*\*</sup> Report total boron directly, no conversion from Boron salt.



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# 11. Glycols / Glycol Ethers

With reference to US EPA 8270E, modified from ISO 22892 (GC-MS Analysis), Liquid extraction, GC-MS analysis.

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

# 12. <u>Halogenated solvents</u>

With reference to USEPA 8260D, Headspace GC-MS or Purge and trap GC-MS analysis.

Chemical substances	CAS no.	ZDHC Reporting limit (μg/L)	Untreated wastewater	Unit
1,2-Dichloroethane	107-06-2	1	ND	μg/L
Methylene chloride	75-09-2	1	ND	μg/L
Tetrachloroethylene	127-18-4	1	ND	μg/L
Trichloroethylene	79-01-6	1	ND	μg/L

# 13. Organotin compounds

With reference to modified from ISO/TS 16179 (GC-MS Analysis), ISO 17353, Derivatisation with NaB (C2H5)4, with GC-MS analysis.

Chemical substances	CAS no.	ZDHC Reporting limit μg/L)	Untreated wastewater	Unit
Dipropyltin compounds (DPT)	Multiple	0.01	ND	μg/L
Mono-, di- and tri-butyltin derivatives	Multiple	0.01	ND	μg/L
Mono, di-, and tri-methyltin derivatives	Multiple	0.01	ND	μg/L
Mono, di-, and tri-octyltin derivatives	Multiple	0.01	ND	μg/L
Mono, di-, and tri-phenyltin derivatives	Multiple	0.01	ND	μg/L
Tetrabutyltin compounds (TeBT)	Multiple	0.01	ND	μg/L
Tripropyltin Compounds (TPT)	Multiple	0.01	ND	μg/L
Tetraoctyltin compounds (TeOT)	Multiple	0.01	ND	μg/L
Tricyclohexyltin (TCyHT)	Multiple	0.01	ND	μg/L
Tetraethyltin Compounds (TeET)	Multiple	0.01	ND	μg/L



**TEST REPORT (TEXTILES)** 

### 14. Other/Miscellaneous Chemicals

Others: With reference to Liquid extraction, LC-MS-MS analysis.

Borate salt: Determined as total boron and total zinc via ICP analysis.

Chemical substances	CAS no.	ZDHC Reporting limit (µg/L)	Untreated wastewater	Unit
AEEA [2-(2-aminoethylamino) ethanol]	111-41-1	500	ND	μg/L
Bisphenol A	80-05-7	10	ND	μg/L
Thiourea	62-56-6	50	ND	μg/L
Quinoline	91-22-5	50	ND	μg/L
Borate, zinc salt ^^	12767-90-7	100 in Boron &	Boron: ND	μg/L
bolate, zilic sait	12/0/-90-/	100 in Zinc	Zinc: ND	μg/L

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# 15. Perfluorinated & polyfluorinated chemicals (PFCs)

PFCs: With reference to modified from ISO 23702-1 (LC-MS Analysis), EPA 8270 with LC-MS Analysis FTOH: With reference to modified from ISO 23702-1 (LC-MS Analysis), EPA 8270 with LC-MS Analysis

Chemical substances	CAS no.	ZDHC Reporting limit (μg/L)	Untreated wastewater	Unit
Perfluoro octane sulfonate (PFOS) and related substances, Perfluorooctanoic acid (PFOA)	Multiple	0.01	ND	μg/L
Perfluorooctanoic acid (PFOA) related substances	Multiple	1	ND	μg/L

# 16. <u>Phthalates – including all other esters of ortho-phthalic acid</u>

With reference to USEPA 8270E, modified from ISO 14389 (GC-MS Analysis), Dichloromethane extraction GC-MS analysis.

Chemical substances	CAS no.	ZDHC Reporting limit (μg/L)	Untreated wastewater	Unit
1,2-benzenedicarboxylic acid, di- C6-8- branched alkyl esters, C7- rich (DIHP)	71888-89-6	10	ND	μg/L
1,2-benzenedicarboxylic acid, di- C7-11- branched and linear alkyl esters (DHNUP)	68515-42-4	10	ND	μg/L
Bis(2-methoxyethyl) phthalate (DMEP)	117-82-8	10	ND	μg/L
Butyl benzyl phthalate (BBP)	85-68-7	10	ND	μg/L
Di-cyclohexyl phthalate DCHP)	84-61-7	10	ND	μg/L
Di-iso-decyl phthalate (DIDP)	26761-40-0	10	ND	μg/L

<sup>^^ =</sup> Report total boron & total zinc individually, and no conversion from boron / zinc salt.



**TEST REPORT (TEXTILES)** 

27554-26-3 Di-iso-octyl phthalate (DIOP) 10 ND μg/L Di-isobutyl phthalate (DIBP) 84-69-5 10 ND μg/L Di-isononyl phthalate (DINP) 10 28553-12-0 ND μg/L Di-n-hexyl phthalate (DnHP) 84-75-3 10 ND μg/L Di-n-octyl phthalate (DNOP) 10 117-84-0 ND μg/L Di-n-pentylphthalates 131-18-0 10 ND μg/L Di-n-propyl phthalate (DPRP) 10 ND 131-16-8 μg/L Di(ethylhexyl) phthalate (DEHP) 117-81-7 10 ND μg/L Dibutyl phthalate (DBP) 84-74-2 10 ND μg/L Diethyl phthalate (DEP) 10 ND 84-66-2 μg/L Diisopentylphthalates ND 605-50-5 10 μg/L Dinonyl phthalate (DNP) 84-76-4 10 ND μg/L

Number:

BGDT24123256

# 17. Polycyclic aromatic hydrocarbons (PAHs)

With reference to US EPA 8270E, DIN 38407-39, solvent extraction GC-MS analysis.

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



**TEST REPORT (TEXTILES)** 

# 18. Restricted Aromatic Amines (Cleavable from Azo-colourants)

With reference to reduction step with sodium dithionite, solvent extraction, EPA 8270E and ISO 14362-1, ISO 14362-3 with GC-MS analysis.

Chemical substances	CAS no.	ZDHC Reporting limit µg/L)	Untreated wastewater	Unit
2-Naphthylamine	91-59-8	0.1	ND	μg/L
2-Naphthylammoniumacetate	553-00-4	0.1	ND	μg/L
2,4-Xylidine	95-68-1	0.1	ND	μg/L
2,4,5-Trimethylaniline	137-17-7	0.1	ND	μg/L
2,4,5-Trimethylaniline hydrochloride	21436-97-5	0.1	ND	μg/L
2,6-Xylidine	87-62-7	0.1	ND	μg/L
3,3'-Dichlorobenzidine	91-94-1	0.1	ND	μg/L
3,3'-Dimethoxybenzidine	119-90-4	0.1	ND	μg/L
3,3'-Dimethylbenzidine	119-93-7	0.1	ND	μg/L
4-Aminoazobenzene	60-09-3	0.1	ND	μg/L
4-Aminodiphenyl	92-67-1	0.1	ND	μg/L
4-Chloro-o-toluidine	95-69-2	0.1	ND	μg/L
4-Chloro-o-toluidinium chloride	3165-93-3	0.1	ND	μg/L
4-Chloroaniline	106-47-8	0.1	ND	μg/L
4-methoxy-m-phenylene diammonium sulphate; 2,4-diaminoanisole sulphate	39156-41-7	0.1	ND	μg/L
4-methoxy-m-phenylenediamine	615-05-4	0.1	ND	μg/L
4-methyl-m-phenylenediamine	95-80-7	0.1	ND	μg/L
4,4'-Methylene-bis(2-chloroaniline)	101-14-4	0.1	ND	μg/L
4,4'-methylenedi-o-toluidine	838-88-0	0.1	ND	μg/L
4,4'-methylenedianiline	101-77-9	0.1	ND	μg/L
4,4'-Oxydianiline	101-80-4	0.1	ND	μg/L
4,4'-Thiodianiline	139-65-1	0.1	ND	μg/L
5-Nitro-o-toluidine	99-55-8	0.1	ND	μg/L
6-methoxy-m-toluidine	120-71-8	0.1	ND	μg/L
Benzidine	92-87-5	0.1	ND	μg/L
o-Aminoazotoluene	97-56-3	0.1	ND	μg/L
o-Anisidine	90-04-0	0.1	ND	μg/L
o-Toluidine	95-53-4	0.1	ND	μg/L



**TEST REPORT (TEXTILES)** 

### 19. <u>UV Absorbers</u>

With reference to USEPA 8270, ISO 22032, USEPA 527, and USEPA 8321B, dichloromethane extraction GC-MS or LC-MS-MS analysis.

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

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# 20. <u>Volatile organic compounds (VOCs)</u>

With reference to ISO 11423-1 Headspace or Purge and trap, GC-MS analysis. USEPA 8260D static headspace for determination of VOC in wastewater.

Chemical substances	CAS no.	ZDHC Reporting limit (μg/L)	Untreated wastewater	Unit
Benzene	71-43-2	1	ND	μg/L
m-cresol	108-39-4	1	ND	μg/L
o-cresol	95-48-7	1	ND	μg/L
p-cresol	106-44-5	1	ND	μg/L
Xylene	1330-20-7	1	ND	μg/L
Toluene (*)	108-88-3	1	ND	μg/L

<sup>(\*) =</sup> Sample and report for mock leather.



**TEST REPORT (TEXTILES)** 

# 21. Heavy metals

With reference to ISO 11885, USEPA 200.8, ISO 18412, modified from EN 16711-1 (ICP-MS Analysis).

Chemical		Limit			Lab		
substances	Foundational	Progressive	Aspirational	Requirem ent	Reporting limit (mg/L)	Effluent	Unit
Antimony	0.1 mg/L	0.05 mg/L	0.01 mg/L	•	0.01	ND	mg/L
Chromium (VI)	0.05 mg/L	0.005 mg/L	0.001 mg/L	1	0.001	ND	mg/L
Barium	Sam	ple and report	only	-	0.01	ND	mg/L
Selenium	Sam	ple and report	only	-	0.01	ND	mg/L
Tin	Sam	ple and report	only	-	0.01	ND	mg/L
Arsenic	0.05 mg/L	0.01 mg/L	0.005 mg/L	-	0.005	ND	mg/L
Chromium (total)	0.2 mg/L	0.1 mg/L	0.05 mg/L	0.5 mg/L	0.05	ND	mg/L
Cobalt	0.05 mg/L	0.02 mg/L	0.01 mg/L	0.5 mg/L	0.01	ND	mg/L
Cadmium	0.1 mg/L	0.05 mg/L	0.01 mg/L	0.02 mg/L	0.01	ND	mg/L
Copper	1 mg/L	0.5 mg/L	0.25 mg/L	-	0.25	ND	mg/L
Lead	0.1 mg/L	0.05 mg/L	0.01 mg/L	0.1 mg/L	0.01	ND	mg/L
Nickel	0.2 mg/L	0.1 mg/L	0.05 mg/L	1 mg/L	0.05	ND	mg/L
Silver	0.1 mg/L	0.05 mg/L	0.005 mg/L	-	0.005	ND	mg/L
Zinc	5.0 mg/L	1.0 mg/L	0.5 mg/L	-	0.5	ND	mg/L
Mercury	0.01 mg/L	0.005 mg/L	0.001 mg/L	-	0.001	ND	mg/L

<sup>\*</sup> Regulation/Standard information for discharged wastewater as well as the limitation value (or contractual limit value agreed by CETP) for the required parameters (mandatory).



**TEST REPORT (TEXTILES)** 

#### 22. **Conventional parameters**

			Limit		Legal*	Lab		
Parameters	Test method	Foundational	Progressive	Aspirational	Require ment	Reporting limit	Effluent	Unit
рН	USEPA 150.1		6-9		6-9	N/A	7.5	[f]
Temperature difference	USEPA 170.1	△+15 °C	△+10 °C	△+5 °C	△+5 °C	N/A	N/A	[f] °C
E.coli	SM 9221B presumptive, confirm positive with SM9221 F or G	12	6 MPN/100-r	nl	-	25 MPN/ 100-ml	ND	MPN /100- ml
Colour (436 nm; 525 nm; 620 nm)	ISO 7887-B	7;5;3 [m <sup>-1</sup> ]	5;3;2 [m <sup>-1</sup> ]	2;1;1 [m <sup>-1</sup> ]	-	N/A	4.6; 4.1; 2.1	[m <sup>-1</sup> ]
Persistent Foam	/		o indication of		-	N/A	N/A	[f]
Wastewater Flowrate	/		N/A	J	-	N/A	2969	<sup>[f]</sup> m³/ day
Ammonium- Nitrogen	ISO 7150 / USEPA 350.1 / SM 4500 NH3 -F	10 mg/L	1 mg/L	0.5 mg/L	-	0.5 mg/L	ND	mg/L
AOX	ISO 9562	3 mg/L	0.5 mg/L	0.1 mg/L	-	0.1 mg/L	ND	mg/L
Biochemical Oxygen Demand (BOD <sub>5</sub> )	USEPA 405.1 / SM 5210-B / modified SM 5210-B,D (Hach BOD)	30 mg/L	15 mg/L	8 mg/L	30 mg/L	8 mg/L	ND	mg/L
Chemical Oxygen Demand (COD)	SM 5220-D / Validated Cuvette Method	150 mg/L	80 mg/L	40 mg/L	200 mg/L	20 mg/L	35	mg/L
Dissolved Oxygen (DO)	EPA 360.1 / SM 4500-O-G	Samp	le and report	only	-	N/A	6.2	ff mg/L
Oil and grease	USEPA 1664 revision B / ISO 9377-2	10 mg/L	2 mg/L	0.5 mg/L	10 mg/L	0.5 mg/L	ND	mg/L
Total Phenols / Phenol Index	ISO 6439 / SM 5530-B,C,D / IS 3025 (Part 43)	0.5 mg/L	0.01 mg/L	0.001 mg/L	1 mg/L	0.001 mg/L	ND	mg/L
Total Chlorine	USEPA 330.5 / SM4500-CI-G	Samp	Sample and report only		-	0.2 mg/L	ND	<sup>[f]</sup> mg/L
Total Dissolved Solids (TDS)	SM 2540-C / USEPA 160.1	Samp	le and report	only	2100 mg/L	10 mg/L	819	mg/L



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	1		1	1				1
Total- Nitrogen	ISO 11905 - Part 1	20 mg/L	10 mg/L	5 mg/L	-	5 mg/L	ND	mg/L
Total- Phosphorus	ISO 11885, USEPA 200.8	3 mg/L	0.5 mg/L	0.1 mg/L	-	0.1 mg/L	0.6	mg/L
Total Suspended Solids (TSS)	USEPA 160.2 / SM 2540D	50 mg/L	15 mg/L	5 mg/L	100 mg/L	5 mg/L	12	mg/L
Chloride	SM 4500-Cl E	Samp	le and report	only	1	10 mg/L	32	mg/L
Cyanide, total	ISO 6703 – 1, 2, 3 / USEPA 335.2 / SM 4500-CN E	0.2 mg/L	0.1 mg/L	0.05 mg/L		0.05 mg/L	ND	mg/L
Sulfate	SM 4500 SO4 E	Samp	le and report	only	-	10 mg/L	102	mg/L
Sulfide	SM 4500-S2-D / ISO 10530	0.5 mg/L	0.05 mg/L	0.01 mg/L	2 mg/L	0.01 mg/L	ND	mg/L
Sulfite	ISO 10304-3	2 mg/L	0.5 mg/L	0.2 mg/L	-	0.2 mg/L	1.1	mg/L

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### Remark:

 $\Delta$  is the degree above ambient temperature of receiving water body.

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Additional Color Test by using local standard required method:

As Per applicant's request, testing was conducted on composite sample based on ZDHC WWSG V2.1.

Parameters	Test Method	Legal Requirement*	Effluent
Color	ISO 7887-C	150 mg Pt /L	142 mg Pt /L

<sup>\*</sup> Legal requirement based on Regulation/Standard information for discharged wastewater as well as the limitation value (or contractual limit value agreed by CETP) for the required parameters (mandatory), it was quoted for reference only.

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<sup>\*</sup> Legal requirement based on Regulation/Standard information for discharged wastewater as well as the limitation value (or contractual limit value agreed by CETP) for the required parameters (mandatory). It is quoted only when the test method used is identical to the ZDHC WWG listed method.



**TEST REPORT (TEXTILES)** 

# Sample / Sludge

Sludge flux (weight/time) and / or flow data volume/time: N/A

# 1. Heavy metals

Other heavy metals: With reference to acid/peroxide digestion EPA 6010C or EPA 6020A, modified from EN 16711-1 (ICP-MS Analysis), USEPA 200.8 with ICP/OES, or ICP-MS analysis.

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Chromium VI: With reference to alkaline digestion modified from ISO 17075-1 (UV-VIS Analysis), ISO 18412 with Colorimetric UV/VIS analysis.

Mercury: With reference to Dissolution, acid digestion, modified from EN 16711-1 (ICP-MS Analysis), modified from ISO 11885 (ICP-MS Analysis).

Chemical substances	ZDHC reporting limit (Dry weight) (mg/kg)	Lab reporting limit (Dry weight) (mg/kg)	Sludge (Dry weight)	Unit
Antimony	5	3	ND	mg/kg
Arsenic	5	2	ND	mg/kg
Barium	200	100	ND	mg/kg
Cadmium	1	1	ND	mg/kg
Cobalt	400	100	ND	mg/kg
Copper	50	25	ND	mg/kg
Lead	5	2	ND	mg/kg
Nickel	20	10	ND	mg/kg
Selenium	5	3	ND	mg/kg
Silver	50	25	ND	mg/kg
Total Chromium	50	25	ND	mg/kg
Zinc	400	200	300	mg/kg
Chromium (VI)	20	2	15	mg/kg
Mercury	1	0.2	ND	mg/kg

# 2. Anions

With reference to USEPA 9013, USEPA 9014, ISO 6703 – 1, 2, 3 / USEPA 335.2 / APHA 4500-CN E with Colourimetry.

Chemical substances	ZDHC reporting limit (Dry weight) (mg/kg)	Lab reporting limit (Dry weight) (mg/kg)	Sludge (Dry weight)	Unit
Cyanide	20	15	ND	mg/kg



**TEST REPORT (TEXTILES)** 

# 3. Conventional parameters

Chemical substances	Test method	Lab reporting limit (Dry Weight)	Sludge (Dry weight)	Unit
рН	USEPA SW 9045D	N/A	7.4	N/A
% Solids	USEPA 160.3	N/A	88	%
Paint Filter Test ^	USEPA 9095B	N/A	Pass	N/A
Fecal Coliform	USEPA 1681	10 MPN/g	90	MPN/g

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# 4. Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers

With reference to ASTM D7065, ISO 18254-1, with LC-MS-MS analysis.

Chemical substances	CAS no.	ZDHC reporting limit (Dry weight) (mg/kg)	Sludge (Dry weight)	Unit
	9016-45-9;			
	26027-38-3;			
Nonylphenol ethoxylates (NPEO)	37205-87-1;	0.4	ND	mg/kg
	68412-54-4;			
	127087-87-0			
	104-40-5;			
Nanylphanal (ND) mixed isomers	11066-49-2;	0.4	ND	ma/ka
Nonylphenol (NP), mixed isomers	25154-52-3;	0.4	ND	mg/kg
	84852-15-3			
	9002-93-1;			
Octylphenol ethoxylates (OPEO)	9036-19-5;	0.4	ND	mg/kg
	68987-90-6			
	140-66-9;			
Octylphenol (OP), mixed isomers	1806-26-4;	0.4	ND	mg/kg
	27193-28-8			

<sup>^ -</sup> Report "Pass" when Paint Filter Test does not contain free liquid; Report "Fail" when Paint Filter Test does contain free liquid.



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# 5. Polycyclic aromatic hydrocarbons (PAHs)

With reference to USEPA 827E, modified from AFPS GS 2019-01 PAK (GC-MS Analysis) with Solvent extraction GC-MS analysis.

Number: BGDT24123256

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

# 6. Chlorotoluenes

With reference to US EPA 827, modified from BS EN 17137 (GC-MS Analysis).

Chemical substances	CAS no.	ZDHC reporting limit (Dry weight) (mg/kg)	Sludge (Dry weight)	Unit
Other isomers of mono-, di-, tri-, tetra- and penta-	Multiple	0.2	ND	mg/kg
chlorotoluene	·			0. 0



**TEST REPORT (TEXTILES)** 

# 7. Leachate heavy metals

With reference to toxicity leachate extraction procedure EPA 1311 followed by Acid digestion with ICP-OES, ICP-MS ISO 11885, USEPA 200.8, modified from EN 16711-1 (ICP-MS Analysis).

Number: BGDT24123256

Chromium VI: With reference to toxicity leachate extraction procedure EPA 1311 followed by ISO 18412 Colorimetric UV/VIS analysis.

Mercury: With reference to toxicity leachate extraction procedure EPA 1311 followed by acid digestion, EPA 3051A, EPA 6020b, modified from EN 16711-1 (ICP-MS Analysis) with ICP MS analysis.

Chemical substances	Lab reporting limit (mg/L)	Sludge	Unit
Arsenic	0.5	N/A	mg/L
Cadmium	0.15	N/A	mg/L
Total Chromium	5	N/A	mg/L
Lead	0.5	N/A	mg/L
Antimony	0.6	N/A	mg/L
Barium	35	N/A	mg/L
Cobalt	80	N/A	mg/L
Copper	10	N/A	mg/L
Nickel	3.5	N/A	mg/L
Selenium	0.5	N/A	mg/L
Silver	5	N/A	mg/L
Zinc	50	N/A	mg/L
Chromium (VI)	2.5	N/A	mg/L
Mercury	0.05	N/A	mg/L



**TEST REPORT (TEXTILES)** 

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

Parameters				Di	sposal path	ways		
	Total metals and	A and B	С	D	E	F	G	G
	anions threshold	(Leachate	(Leachate	(Leachate	(Leachate	(Leachate	(Leachate	(Total metals
	values (mg/kg)	result in	result in	result in	result in	result in	result in	limit in
		mg/L)	mg/L)	mg/L)	mg/L)	mg/L)	mg/L)	mg/kg)
Arsenic	10		5	2.75	0.5	0.5	0.5	75
Cadmium	3		1	0.58	0.15	0.15	0.15	85
Total	100		15	10	5	5	5	3000
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
Barium	700	Report	100	67.5	35	35	35	report only
Cobalt	1600	only if	80	80	80	80	80	
Copper	200	required	25	17.5	10	10	10	4300
Nickel	70	to test	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
Silvei	100		5	5	5	5	5	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	57

Number: BGDT24123256

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

Parameters			Disp	osal pathways		
	A and B	С	D	E	F	G
рН		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	Sample and	Sample and report only	Sample and report only
Fecal Coliform			report only	report only	< 1000	(MPN/g)
Paint Filter Test	Sample	Sample	Pa	ass Paint filter tes	st	Sample and report only
Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers	and report only	and report only		< 0.4 n	ng/kg	
Polycyclic Aromatic Hydrocarbons (PAHs) Chlorotoluenes				< 0.2 n	ng/kg	

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

Parameters		Disp	oosal pathways			
	A and B	С	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



**TEST REPORT (TEXTILES)** 

# Photo of sampling points:

# Untreated wastewater



# Effluent



Number: BGDT24123256

# Sludge





# **TEST REPORT (TEXTILES)**

# Photo of samples:

# Untreated wastewater



# Effluent



Number: BGDT24123256

# Sludge





**TEST REPORT (TEXTILES)** 

Number: BGDT24123256

Photo of Receiving Water Temperature and Foam Sampling Risk / Reason:





**TEST REPORT (TEXTILES)** 

Number: BGDT24123256

Attachment – sampling protocol for wastewater & sludge:

Sampii	ng Pro	otocol f	or \	<b>Vastewa</b>	ter an	d Slud	lge ac	c. ZDHC	SAP 2	1 inc	I. Apdx. E
Facility Name	e	Fakhn	(ud	din tex	tile 1	Mills	L+d.				
Address and	Contact:	Gihango	rtio	, Mastey	bari, l	Kewa, S	tucp	uy, Gar	ripuy.		
Facility type (tick all appli		Dyeing a Finishing		☐ Fabric Mill		ndry, Washir Finishing	_	Natural Leather processing	☐ Printi	ng 🗆	Synthetic Leather processing
Date of samp	oling:	08-09	- 9	2024					-1		
Sample Gene if applicable		11090	SEL	-	direct di indirect Zero Liq		ge (ZLD)	with pre-tre	atment	ischarge t	anal
Discharge des	cription:	N/A						1			
Weather con	ditions:	on sampling	g day:	Sunny		O	on day be	efore:	unny		
Fill in all above i	information	as applicable.	-	7					1		
STOCKHOOL STOCK	TO SERVE	NAME OF TAXABLE PARTY.	1000		E 10 10 10 10 10 10 10 10 10 10 10 10 10	I ESTABLISHED	WEST SAID		with the state of	G28153638	<b>学会发表。</b>
Discharge						<i></i>		with Equalisati			
☐ Pre-treated	Sample De and measu parameter		Indire paran excep		uired, ope	acility has Wallant is in erating condi	tion If	ydraulic Retent Volume of tank HRT > 12h, grab	s [m³] / Flow sampling fo	rate [m³/	is allowed.
Discharge  Pre-treated without slu	Sample De and measu parameter	tails (page 2), are field	Indire paran excep	ect discharge. Field neters are not req of on client's reque W with Eq HRT:	uired, ope	lant is in erating condi ank (EQT) po Volume of t	tion If resent:	ydraulic Retent Volume of tank HRT > 12h, grab / Flow rate [m <sup>3</sup> /	s [m³] / Flow sampling fo	rate [m³/	/h]) is allowed.
Pre-treated without slu  Sludge with  A >1000 °C of incineration  i) if supplier can	Sample De and measu parameter di WW dge O E Effsite Land sign noot provide	tails (page 2), are field s	Indire paran excep ed WV	tet discharge. Field neters are not reque to no client's reque W with Ed HRT: U If HRT > 1	uuired, ope uuired, ope uualisation T 8 h (= 2h, grab sa O D Landfil limited	Plant is in crating condition (EQT) provided the control of the co	tion If  resent: tank [m³] n EQT is a	ydraulic Retent Volume of tank HRT > 12h, grat / Flow rate [m³/ illowed age on / Building processed <1000	of sludge:  OF  Landfill  control	rate [m³/ rom EQT i oming W	is allowed.  ater
Pre-treated without slu  Sludge with  A >1000 °C of incineration  if supplier can Sludge volume	Sample De and measu parameter i WW idge O E E Lancin sign nnot provide e generate	posal pathway dfill with ifficant control e information, p di	Indire paran excep ed WV	tot discharge. Field neters are not requit on client's required by the first sequence of	uuired, opest. opest. ope 2h, grab sa  O D Landfill Limited other unit (	Plant is in crating condition of the condition of the condition of the condition of the control	www.tion If (= interest) (= int	ydraulic Retent Volume of tank HRT > 12h, grat / Flow rate [m³/ illowed age on / Building processed <1000	of sludge:  OF  Landfill control	rate [m³/ rom EQT i oming W	is allowed.  ater MMCF  S / weeks  O G  Land application  O estimated
Pre-treated without slu  Sludge with  A >1000 °C of incineration  if supplier can Sludge volume	Sample De and measu parameter i WW idge O E E Lancin sign nnot provide e generate	tails (page 2), refield s.s.  Quntreat  Duntreat  Duntreat  Duntreat  Duntreat  Duntreat  Duntreat  Duntreat  Duntreat	Indire paran excep ed WV	ct discharge. Field neters are not required to no client's required to not not not not not not not not not	uuired, ope est. uualisation T 8 h (= 2h, grab sa O D Landfilimited med. other unit (	Plant is in rating conditions (EQT) provided from pling	wwrp   H (= tion   If resent: tank [m³], n EQT is a   C   E   Incineration   C   F   C   C   C   C   C   C   C   C	ydraulic Retenti Volume of tank HRT > 12h, grat / Flow rate [m³/ Illowed age on / Building orocessed <1000	of sludge:  OF  Landfill control of O mea	rate [m³/ rom EQT i oming W  80 day with no	is allowed.  ater
Pre-treated without slu  Sludge with  A >1000 °C of incineration  if supplier can Sludge volume	Sample De and measu parameter di WW dige  a below dis O E Lansisian sign monot provide e generate emical	posal pathway dfill with ifficant control e information, p O liquid	Indire paran excep ed WV	ct discharge. Field neters are not requit on client's required by the control of	uuired, ope	Plant is in ank (EQT) provided from pling fr	wwrp   H (=   If   If   If   If   If   If   If   I	ydraulic Retenti Volume of tank HRT > 12h, grat / Flow rate [m³/ illowed age on / Building processed <1000 Oper facility i n running proce	of sludge:  OF Landfill control  of O mea	rate [m³/ rom EQT i oming W  80 day with no	is allowed.  ater MMCF  MMCF  S / weeks  O G  Land application  O estimated  rehouse/storage  or Grab (HRT>12h)  09:45
Pre-treated without slu  Sludge with  A >1000 °C of incineration  *) if supplier can Sludge volume  Process Che	Sample De and measu parameter di WW dige on below dis parameter di WW dige on below dis parameter di WW dige on below dis sign anot provide e generater emical Untrea Effluen (indirect	tails (page 2), are field s.  Duntreat  Duntre	Indire paran excep ed WV	ct discharge. Field neters are not required to no client's required to not not not not not not not not not	uuired, ope est. uualisation T 8 h (= 2h, grab sa O D Landfilimited med. other unit (	Plant is in rating conditions (EQT) provided from pling	wwrp   H (= tion   If resent: tank [m³], n EQT is a   C   E   Incineration   C   F   C   C   C   C   C   C   C   C	ydraulic Retenti Volume of tank HRT > 12h, grat / Flow rate [m³/ Illowed age on / Building orocessed <1000	of sludge:  OF  Landfill control of O mea	rate [m³/com EQT i coming W with no consured from war	is allowed.  ater MMCF  MMCF  S / weeks  O G  Land application  O estimated  rehouse/storage  or Grab (HRT>12h)
Pre-treated without slu  Sludge with  A >1000 °C of incineration *) if supplier car Sludge volume  Process Ch	Sample De and measu parameter a su www didge  a below dis O B Lann sign not provide e generate emical  Untrea  Effluen (indirect Incomin	tails (page 2), are field s.  Duntreat  Duntre	Indire paran excep ed WV	ct discharge. Field neters are not required to on client's required to one client's required from the control of the control o	uiured, open the second of the	lant is in lant is in lant is in lant is in lank (EQT) pi Volume of t mpling from l with l control l specify): lieces)  4	wwrp H (= if if resent: tank [m³] on EQT is a continuous products	ydraulic Retenti Volume of tank HRT > 12h, grat  / Flow rate [m³/ Illowed age on / Building processed <1000 Oper facility in n running proce	of sludge:  OF Landfill control  O mea	rate [m³/ rom EQT i coming W  80 days with no sured from wai	is allowed.  ater MMCF  MMCF
Pre-treated without slu  Sludge with  A >1000 °C of incineration  i) if supplier car Sludge volume  Process Char  Times of sampling (if applicable)  for direct disc  take grab sai	Sample De and measu parameter di WW didge  a below dis O E E E E E E E E E E E E E E E E E E	tails (page 2), are field s.  Duntreat  Duntre	Indire paran excepted WV	ct discharge. Field neters are not requited to not client's required to not client's required from the control of the control	ope unualisation T S h (= 2h, grab sa O D Landfill limited med. other unit (= 2n unual te/p = 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Plant is in ank (EQT) pi Volume of mpling from li with control pi specify):	wwrp H (= ition   If resent: tank [m³] on EQT is a continuous products prod	ydraulic Retenti Volume of tank HRT > 12h, grat  / Flow rate [m³/ Illowed age on / Building processed <1000 Oper facility in n running proce 6 6 6	of sludge:  OF Landfill control  7  7  7	rate [m³/ rom EQT i oming W  80 days with no	is allowed.  ater MMCF  MMCF
Pre-treated without slu  Sludge with  A >1000 °C of incineration  if supplier car  Sludge volume  Process Che  Times of sampling (if applicable)  of take grab san  Picture ID (or	Sample De and measuparameter is to WW idge in below dispersion of the sign of	tails (page 2), refield s.  Quntreat  Duntreat  Duntreat  Duntreat  Duntreat  Duntreat  Control  Contr	Indire paran excepted WV	ct discharge. Field neters are not requit on client's required by the control of	ope unualisation T S h (= 2h, grab sa O D Landfill limited med. other unit (= 2n unual te/p = 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Plant is in Plant	wwrp H (= ition   If resent: tank [m³] on EQT is a continuous products prod	ydraulic Retenti Volume of tank HRT > 12h, grat  / Flow rate [m³/ llowed age on / Building processed <1000  per facility in n running proce 6 6 6 6 recycled water	of sludge:  OF Landfill control  7  7  7	rate [m³/ rom EQT i coming W  80 day with no ssured from wai	is allowed.  ater MMCF  MMCF
Pre-treated without slu  Sludge with O A > 1000 °C of incineration of incineration of sampling (if applicable)  If or direct discount of take grab sampling (if applicable)  Of the control of take grab sampling (if applicable)	Sample De and measuparameter is to WW didge in below dis O E Lanus in sign most provide e generater emical Untrea Effluen (indirect in comis in com	tails (page 2), refield s.  Duntreat  Duntreat	Indire paran excep ed W\  y*): Bu privile parante of the parante o	id discharge. Field neters are not required to no client's required to not not not not not not not not not	uuired, operated vives sof samplir Lat.: Ol	Plant is in Plant	wwrp H (= tion   If (= tion   I	ydraulic Retenti Volume of tank HRT > 12h, grat  / Flow rate [m³/ llowed age on / Building processed <1000  per facility in n running proce 6 6 6 6 recycled water	of sludge:  OF Landfill control  7  7  from EQT <1	rate [m³/ rom EQT i coming W  80 day with no ssured from wai	is allowed.  ater MMCF  MMCF
Pre-treated without slu  Sludge with  A >1000 °C of incineration  i) if supplier can sludge volume  Process Charles  Times of sampling (if applicable)  of for direct discentiate grab san Picture ID (or TSEL 24 to TSEL 24	Sample De and measuparameter at WW didge and below dispersion of the second of the sec	tails (page 2), refield s.  Duntreat  Duntreat	Indire paran excep ed WV	ct discharge. Field neters are not requive to no client's requive from the field of	uiured, operated rives of samplin Lat.: Ol	Plant is in rating condition of the province o	wwrp H (= if tion   If test   If tes	ydraulic Retenti Volume of tank HRT > 12h, grat  / Flow rate [m³/ Illowed age on / Building processed <1000  Oper facility i n running proce 6 6 6 6 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8	of sludge:  OF Landfill control  To meass  To	with no ssured from was 22h must 1	is allowed.  ater MMCF  MMCF  Solveeks  O G  Land application  O estimated  rehouse/storage  or Grab (HRT>12h)  O Grab (HRT>12h)  or Grab <sup>2</sup> (HRT>12h)  or Grab <sup>2</sup> (HRT>12h)  solid sludge:  14:30  be composite.
Pre-treated without slu  Sludge with  A >1000 °C of incineration  if supplier car Sludge volume  Process Chi  Times of sampling (if applicable)  if or direct disc.  take grab sai  Picture ID (or	Sample De and measuparameter at suw dige and below dis O E Lanning of the sign	tails (page 2), refield s.  Duntreat  Duntreat	Indire paran excep ed WV	id discharge. Field neters are not required to no client's required to not not not not not not not not not	uiured, operation Transition Tran	Plant is in Plant	wwrp H (= tion   If resent: tank [m³]   on EQT is a continuous products pro	ydraulic Retenti Volume of tank HRT > 12h, grat  / Flow rate [m³/ Illowed age on / Building processed <1000  Oper facility i n running proce 6 6 6 6 7 6 7 7 8 8 8 8 8 8 8 8 8 8 8 8	of sludge:  OF Landfill control  7  7  from EQT <1	with no sured from was 12h must 1	is allowed.  ater MMCF  MMCF  Solveeks  O G  Land application  O estimated  rehouse/storage  or Grab (HRT>12h)  or Grab (HRT>12h)  or Grab (HRT>12h)  solid sludge:  14:30  be composite.



**TEST REPORT (TEXTILES)** 

Number: BGDT24123256

# intertek ZDHC Monitoring

Composite	Sample		Grab Sample (enter data in		ed from EQT veraged Read					V	olume of a	liquot(s):	100	10 ml
Time of discrete		10:20	211120	31212	413:2	D 5	14:	20	615	20	716:2		ged Re Sample	adings readings:
pH:		7.5	7.6	7.5	7-5		7.	5	7.	6	7.5	` '-	1.5	
emp. WW dis	charge	34 .	34 %	35	·c 34	°C '	34	°C	35	c	34		54	*0
f receivin	g water	*(		_	°C	°C		°C		*C			AVA	*0
low rate:		34.29 4	s 74.29 L/											m³/d avg.
Dissolved Oxyg	en:	6,2mg/		and the second section in the second	1/L 6.2m	-			AND THE PERSON NAMED OF TH				12	mg/L
Total Chlorine:		ND mg/	L HD mg/	L ND mg	L ND m	ng/L	ND	mg/L	ND	mg/L	Np m	g/L N	IP	mg/L
Persistent foan	Contract of the Contract of th	O yes O no			no O yes O							harries of the	Textil	
			mposite was tak 5.4 m³/d; 1 m³/h											Markett.
ampling pro	cedure:	O autom	ated sampling	With	beaker/bowl	0	other:					2000		15
Wastewate	er Flow	-	uent/Discha				NAME OF			District Street	K	The	S Steeps	Con
System:		Flow	meter (in fac	cility)	☐ Pipe (	0)			☐ Fl	ume (I	U)		Vier (V	)
Diameter [ci	m]													
Water Depti	n [cm]	900												
Flow Speed	[cm/sec				National State of the last			1						
General Fie	ld Para	meters a	nd Sensory	Data (enter	as far as appl	icable)		1361			SEORES N			
SALES CONTRACTOR SERVICES	mbient a	Service Arms dones	dour				Colou	ır				Foaming		ng matter
ncoming												O yes O no	Oye	s O no
Intreated							Da	нK	Aur	ple	_	O yes no	Оуе	s Ono
ffluent							Lia	tht	Pur Pur Sirce	rpl	•	O yes ono	О уе	es Ono
iludge								C	Sire	7		$\geq \times \langle$		$\times$
Field Testin	QA/QC			Sale						7				
Parameter	Lal	Control	Sample targ	get value	Lab Cont	rol Sa				valu	e		racy [9	6]
рН			1.0					7,				9		
Total Chloris	ne		0.5 mg/	_			0	.5	2_m	8/4		10	14	
to unde treated	ssible unaru wa	runt o	ake teedischan	ge war	stewater	rair	Pip!	mg	and	_ and	nd princet ye co	erusistent ly discl	for	am d jed ttain

Rev 10b-4b - use with Guideline CS009.TP (Issue 10b)

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**TEST REPORT (TEXTILES)** 

Number: BGDT24123256

# intertek ZDHC Monitoring

**ZDHC Wastewater Sampling - Facility Confirmation** 

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.

Sampling person (name & email address): HMI SUM Rahman = nvigonmentalbb. & Stlinesbge Dintytek: Com Facility Name: Fakhrueddin Texfile Mills Ltd.

Sampler's ZDHC accreditation no.:

Facility's Representative name:

ZDHC-A- EZ-E-CO01063-R2280-609FB

Md. Mamuny Hagle

Sampler's Signature:

Facility's Representative Signature and Stamp:

din .



**TEST REPORT (TEXTILES)** 

End of report

This report is made solely on the basis of instructions and/or information and materials supplied by you (the Client), It is not intended to be a recommendation for any specific course of action. Intertek shall 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 that which is expressly contained in the terms and conditions governing the 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, truthful and careful basis and we do not accept any liability to you for any direct or in-direct 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 willful misconduct.