

International
Independent Inspection
&
Testing Company




TEST REPORT

Report No.: GCGNZD2300063
Ulr No: TC1159423000031299

Dated: 28 September 2023

Applicant : NSL Textiles Limited
Contact Person : Mr. Indranil Banerjee
Address : 317-380, Kunchalavaripalem, Chandole Post,
Cherukupalli Mandal, Guntur District, AP - 522311
Sample : The Submitted sample is Wastewater & Sludge
Date of Sampling : 11/09/2023
Sampling Location : ETP Plant
Sample Collecting Person ID : 8F1465019040
Sampling Protocol : In-house (SOP NO.: GC-SOP-ANA-037 based on ISO: 5667)
Sample Quantity : 15 liters each (ETP Inlet, Outlet), 1Kg Sludge
Weather Condition : Cloudy – No rain
Factory Representative : Mr. Indranil Banerjee / Mr. Roshan
Type of Industry : Fabric Wet processing Mill.
Sample Received Date : 12/09/2023
Type of Discharge : Direct (ZLD)
Type of ETP : Continuous
Type of Sampling : Composite
Date of Analysis : 12 September 2023 to 28 September 2023
Sample Description : A: Inlet water B: Sludge

For and on behalf of
Geo-Chem Laboratories Pvt. Ltd.


Dr. Shobhit Shrivastav
Lab Manager

Test result is drawn according to the kind and extent tests performed.

Without permission of the tests centre, this report is not permitted to be duplicated in extracts. This report does not entitle to carry any safety mark on this or similar products. This test report represents the test parameters as requested by the customer based on submitted sample only.

Regd. Off.: Geo-Chem House, 294, Shahid Bhagat Singh Road, Fort, Mumbai 400001 . India.

www.geochem.net.in

Result Summary (MRSL TEST)

Sl. No.	Test Item	A	B	Conclusion
1	Alkyphenol (AP) & Alkyphenol ethoxylates (APEOs)	ND	ND	Pass
2	Antimicrobial and Biocides	ND	-	Pass
3	Chlorinated paraffines	ND	-	Pass
4	Chlorobenzenes & Chlorotoluenes	ND	ND	Pass
5	Chlorophenols	ND	-	Pass
6	N, N-dimethylformamide	ND	-	Pass
7	Hazardous Dyes-Carcinogenic dyestuff	ND	-	Pass
8	Hazardous Dyes-Allergenic disperse dyestuff	ND	-	Pass
9	Dyes – Navy Blue colourant	ND	-	Pass
10	Flame retardants	ND	-	Pass
11	Glycols	ND	-	Pass
12	Halogenated Solvents	ND	-	Pass
13	Organotin compounds	ND	-	Pass
14	Other / Miscellaneous Chemicals	ND	-	Pass
15	PFCs (Perfluorocarbon / Polyfluorinated Compounds)	ND	-	Pass
16	Phthalates	ND	-	Pass
17	Polycyclic Aromatic Hydrocarbons (PAHs)	ND	ND	Pass
18	Restricted Aromatic Amines (Cleavable from Azo-colourants)	ND	-	Pass
19	UV Absorbers	ND	-	Pass
20	VOC	ND	-	Pass

Remark:

1. ND: Not Detected, D: Detected (values less than the reporting limit have been mentioned as ND)

Result Summary (Sludge)

S. No.	Test Details	B	ZDHC Discharge Limit (Textile)	ZDHC Discharge Limit (Leather)
1	Antimony	ND	√	-
2	Arsenic	ND	√	NA
3	Barium	ND	√	-
4	Cadmium	ND	√	NA
5	Cobalt	ND	√	-
6	Copper	ND	√	-
7	Lead	ND	√	NA
8	Nickel	ND	√	-
9	Selenium	ND	√	-
10	Silver	ND	√	-
11	T. Chromium	ND	√	-
12	Zinc	ND	√	-
13	Chromium (VI)	ND	√	NA
14	Mercury	ND	√	NA
15	Cyanide	ND	√	-
16	pH	Refer Result	-	-
17	% Solid	Refer Result	-	-
18	Paint Filter Test	Refer Result	-	-
19	Fecal Coliform	Refer Result	-	-

√: Meets Requirements

X: Does not Meets requirements

NA: Not Applicable

MRSL Test Result

1) Alkylphenol (AP) & Alkylphenol ethoxylates (APEOs) Test Method: With Reference to ISO 18857-2, ISO 18254-1, followed by LCMS analysis					
Substance name	CAS No.	Reporting limit	Result		ZDHC Discharge Limit (Max)
			A (µg/L)	B (mg/kg)	
Nonylphenol (n-nonyl and iso-nonyl)	11066-49-2, 25154-52-3, 104-40-5, 90481-04-2, 84852-15-3	1 µg/L	ND	ND	Water: Textile: 5 µg/L Leather: 5 µg/L Sludge: Textile: 0.4mg/kg Leather: 0.4mg/kg
Octylphenol (n-octyl and iso-octyl)	140-66-9, 27193-28-8, 1806-26-4	1 µg/L	ND	ND	
Nonylphenoethoxylates (NPEO) (n-nonyl and iso-nonyl)	9016-45-9, 26027-38-3, 68412-54-4, 127087-87-0, 37205-87-1	1 µg/L	ND	ND	
Octylphenoethoxylates (OPEO) (n-octyl and iso-octyl)	9002-93-1, 9036-19-5, 68987-90-6	1 µg/L	ND	ND	

Remark: ND: Not Detected,

Sludge Reporting Limit : 0.2mg/kg

2) Anti- Microbials & Biocides				
Test Method: GC-SOP-ANA-052 (Based on BS EN 12673:1999 & ISO 14154:2005), followed by GCMS & LCMS analysis				
Substance name	CAS No.	Reporting limit	Result	ZDHC Discharge Limit (µg/L)
			A (µg/L)	
o-Phenylphenol (+salts)	90-43-7	0.1 µg/L	ND	Textile: 100
Triclosan	3380-34-5	0.3 µg/L	ND	Textile: 100
Permethrin	Multiple	0.3 µg/L	ND	Textile: 500

Remark: ND: Not Detected,

3) Chlorinated Paraffins				
Test Method: GC-SOP-ANA-052 (Based on ISO 18219-1), followed by GCECD				
Substance name	CAS No.	Reporting limit	Result	ZDHC Discharge Limit (Max µg/L)
			A (µg/L)	
Medium-chain Chlorinated paraffins (MCCPs) (C14-C17)	85535-85-9	5 µg/L	ND	Textile: 5
Short-chain Chlorinated paraffin (C10 – C13)	85535-84-8	5 µg/L	ND	

Remark: ND: Not Detected

4) Chlorobenzenes & ChloroToluene					
Test Method: With reference USEPA 8260B & 8270D, Solvent extraction with GCMS analysis					
Substance name	CAS No.	Reporting limit	Result		ZDHC Discharge Limit (Max)
			A (µg/L)	B (mg/kg)	
Monochlorobenzene	108-90-7	0.1µg/L	ND	NR	Water: Textile: 0.2 µg/L Leather: 0.2 µg/L Sludge#: Textile: 0.2mg/kg Leather: 0.2mg/kg
Dichlorobenzenes	-	-	-	-	
1,2-Dichlorobenzene	95-50-1	0.1µg/L	ND	NR	
1,3-Dichlorobenzene	541-73-1	0.1µg/L	ND	NR	
1,4-Dichlorobenzene	106-46-7	0.1µg/L	ND	NR	
Trichlorobenzenes	-	-	-	-	
1,2,3-Trichlorobenzene	87-61-6	0.1µg/L	ND	NR	
1,2,4-Trichlorobenzene	120-82-1	0.1µg/L	ND	NR	
1,3,5-Trichlorobenzene	108-70-3	0.1µg/L	ND	NR	
Tetrachlorobenzene	-	-	-	-	
1,2,3,4-Tetrachlorobenzene	634-66-2	0.1µg/L	ND	NR	
1,2,3,5-Tetrachlorobenzene	634-90-2	0.1µg/L	ND	NR	
1,2,4,5-Tetrachlorobenzene	95-94-3	0.1µg/L	ND	NR	
Pentachlorobenzenes	608-93-5	0.1µg/L	ND	NR	
Hexachlorobenzene	118-74-1	0.1µg/L	ND	NR	
Chlorinated Toluenes (as solvents/biocides, from dyes production, Chemical intermediates, Antifelting)					
Chlorotoluene	Various	0.1µg/L	-	-	
2-Chlorotoluene	95-49-8	0.1µg/L	ND	ND	
3-Chlorotoluene	108-41-8	0.1µg/L	ND	ND	
4-Chlorotoluene	106-43-4	0.1µg/L	ND	ND	
Dichlorotoluene	Various	-	-	-	
2,3-Dichlorotoluene	32768-54-0	0.1µg/L	ND	ND	
2,4-Dichlorotoluene	95-73-8	0.1µg/L	ND	ND	
2,5-Dichlorotoluene	19398-61-9	0.1µg/L	ND	ND	
2,6-Dichlorotoluene	118-69-4	0.1µg/L	ND	ND	
3,4-Dichlorotoluene	95-75-0	0.1µg/L	ND	ND	
3,5-Dichlorotoluene	25186-47-4	0.1µg/L	ND	ND	
Trichlorotoluene	Various	-	-	-	
2,3,6-Trichlorotoluene	2077-46-5	0.1µg/L	ND	ND	
2,4,5-Trichlorotoluene	6639-30-1	0.1µg/L	ND	ND	
2,4,6-Trichlorotoluene	23749-65-7	0.1µg/L	ND	ND	
2,3,4-Trichlorotoluene	7359-72-0	0.1µg/L	ND	ND	
3,4,5-trichlorotouene	2014-83-7	0.1µg/L	ND	ND	
Tetrachlorotoluene	Various	-	-	-	
2,3,4,5- Tetrachlorotoluene	76057-12-0	0.1µg/L	ND	ND	
2,3,5,6- Tetrachlorotoluene	29733-70-8	0.1µg/L	ND	ND	
2,3,4,6- Tetrachlorotoluene	875-40-1	0.1µg/L	ND	ND	
Pentachlorotoluene	877-11-2	0.1µg/L	ND	ND	

Remark: ND: Not Detected, NR: Not Required
#: Applicable for Chlorinated Toluene only.

Sludge Reporting Limit: 0.1mg/kg

5) Chlorophenols				
Test Method: With reference USEPA 8270D, Solvent extraction, followed by GCMS analysis				
Substance name	CAS No.	Reporting limit	Result	ZDHC Discharge Limit (Max µg/L)
			A (µg/L)	
Monochlorophenols	-	-	-	Textile: 0.5 Leather: 0.5
2-Chlorophenol	95-57-8	0.5µg/L	ND	
3-Chlorophenol	108-43-0	0.5µg/L	ND	
4-Chlorophenol	106-48-9	0.5µg/L	ND	
Dichlorophenols (DiCP)	-	-	-	
2,3-dichlorophenol	576-24-9	0.5µg/L	ND	
2,4-dichlorophenol	120-83-2	0.5µg/L	ND	
2,5-Dichlorophenol	583-78-8	0.5µg/L	ND	
3,4-dichlorophenol	95-77-2	0.5µg/L	ND	
3,5-dichlorophenol	591-35-5	0.5µg/L	ND	
2,6-Dichlorophenol	87-65-0	0.5µg/L	ND	
Trichlorophenol	-	-	-	
2,3,4-Trichlorphenol	15950-66-0	0.5µg/L	ND	
2,3,5-Trichlorphenol	933-78-8	0.5µg/L	ND	
2,3,6-Trichlorphenol	933-75-5	0.5µg/L	ND	
2,4,5-Trichlorphenol	95-95-4	0.5µg/L	ND	
2,4,6-Trichlorphenol	88-06-2	0.5µg/L	ND	
3,4,5-Trichlorphenol	609-19-8	0.5µg/L	ND	
Tetrachlorophenol	-	-	-	
2,3,4,5-Tetrachlorphenol	4901-51-3	0.5µg/L	ND	
2,3,4,6-Tetrachlorphenol	58-90-2	0.5µg/L	ND	
2,3,5,6-Tetrachlorphenol	935-95-5	0.5µg/L	ND	
Pentachlorophenol	87-86-5	0.5µg/L	ND	

6) N,N-di-methylformamide (DMFa)				
Test Method: GC-SOP-ANA-052 (Based on EPA-8015), followed by GCMS				
Substance name	CAS No.	Reporting limit	Result	ZDHC Discharge Limit (Max µg/L)
			A (µg/L)	
Dimethyl formamide; N,N-dimethylformamide (DMFa)	68-12-2	30 µg/L	ND	Textile: 1000

Remark: ND: Not Detected,

7) Carcinogenic Dyes Test Method: : GC-SOP-ANA-021 (Based on DIN 54231), followed by LCMS				
Substance name	CAS No.	Reporting limit	Result	ZDHC Discharge Limit (Max µg/L)
			A (µg/L)	
C.I. Acid Red 26 (C.I. 16150)	3761-53-3	0.1µg/L	ND	Textile: 500 Leather: 500
C.I. Basic Blue 26	2580-56-5	0.1µg/L	ND	
C.I. Basic Red 9 (C.I. 42500)	569-61-9	0.1µg/L	ND	
C.I. Basic Violet 14 (C.I. 42510)	632-99-5	0.1µg/L	ND	
C.I. Direct Black 38 (C.I. 30235)	1937-37-7	0.1µg/L	ND	
C.I. Direct Blue 6 (C.I. 22610)	2602-46-2	0.1µg/L	ND	
C.I. Basic Green 4	569-64-2	0.1µg/L	ND	
C.I. Basic Green 4	2437-29-8	0.1µg/L	ND	
C.I. Basic Green 4	10309-95-2	0.1µg/L	ND	
C.I. Direct Red 28 (C.I. 22120)	573-58-0	0.1µg/L	ND	
C.I. Disperse Blue 1 (C.I. 64500)	2475-45-8	0.1µg/L	ND	
C.I. Disperse Blue 3	2475-46-9	0.1µg/L	ND	
C.I. Disperse Orange 11 (C.I. 60700)	82-28-0	0.1µg/L	ND	
C.I. Disperse Yellow 3	2832-40-8	0.1µg/L	ND	

Remark: ND: Not Detected

8) Allergenic Disperse Dyes				
Test Method: GC-SOP-ANA-021 (Based on DIN 54231), followed by LCMS				
Substance name	CAS No.	Reporting limit	Result	ZDHC Discharge Limit (Max µg/L)
			A (µg/L)	
C.I. Disperse Blue 1 (C.I. 64500)	2475-45-8	0.1µg/L	ND	Textile: 50
C.I. Disperse Blue 3 (C.I. 61505)	2475-46-9	0.1µg/L	ND	
C.I. Disperse Blue 7 (C.I. 62500)	3179-90-6	0.1µg/L	ND	
C.I. Disperse Blue 26 (C.I. 63305)	3860-63-7	0.1µg/L	ND	
C.I. Disperse Blue 35 (mixture)	12222-75-2	0.1µg/L	ND	
C.I. Disperse Blue 35	56524-77-7	0.1µg/L	ND	
C.I. Disperse Blue 102	12222-97-8	0.1µg/L	ND	
C.I. Disperse Blue 106	12223-01-7	0.1µg/L	ND	
C.I. Disperse Blue 124	61951-51-7	0.1µg/L	ND	
C.I. Disperse Brown 1	23355-64-8	0.1µg/L	ND	
C.I. Disperse Orange 1 (C.I. 11080)	2581-69-3	0.1µg/L	ND	
C.I. Disperse Orange 3 (C.I. 11005)	730-40-5	0.1µg/L	ND	
C.I. Disperse Orange 37 / 59 / 76 (C.I. 11132)	13301-61-6	0.1µg/L	ND	
C.I. Disperse Orange 149	85136-74-9	0.1µg/L	ND	
C.I. Disperse Red 1 (C.I. 11110)	2872-52-8	0.1µg/L	ND	
C.I. Disperse Red 11 (C.I. 62015)	2872-48-2	0.1µg/L	ND	
C.I. Disperse Red 17 (C.I. 11210)	3179-89-3	0.1µg/L	ND	
C.I. Disperse Yellow 1 (C.I. 10345)	119-15-3	0.1µg/L	ND	
C.I. Disperse Yellow 3 (C.I. 11855)	2832-40-8	0.1µg/L	ND	
C.I. Disperse Yellow 9 (C.I. 10375)	6373-73-5	0.1µg/L	ND	
C.I. Disperse Yellow 23 (C.I. 26070)	6250-23-3	0.1µg/L	ND	
C.I. Disperse Yellow 39	12236-29-2	0.1µg/L	ND	
C.I. Disperse Yellow 49	54824-37-2	0.1µg/L	ND	

Remark: ND: Not Detected

9) Dyes – Navy Blue Colourant				
Test Method: GC-SOP-ANA-021 & GC-SOP-ANA-052 (Based on DIN 54231), followed by LCMS				
Substance name	CAS No.	Reporting limit	Result	ZDHC Discharge Limit (Max µg/L)
			A (µg/L)	
Component 1: C ₃₉ H ₂₃ Cl-CrN ₇ O ₁₂ S ₂ Na	118685-33-9	0.1	ND	Textile: 500 Leather: 500
Component 2: C ₄₆ H ₃₀ CrN ₁₀ O ₂₀ S ₂₃ Na	Not Allocated	0.1	ND	

Remark: ND: Not Detected

10)Flame retardants				
Test Method: With reference to USEPA 8270, USEPA 527, USEPA 8321B Solvent extraction followed by GC/MS & LCMS analysis				
Substance name	CAS No.	Reporting limit	Result	ZDHC Discharge Limit (Max µg/L)
			A (µg/L)	
2,2-bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0	0.05 µg/L	ND	Textile: 25 Leather: 5.0
Bis(2,3-dibromopropyl) phosphate (BIS)	5412-25-9	0.05 µg/L	ND	
Decabromodiphenylether (DecaBDE)	1163-19-5	0.05 µg/L	ND	
Hexabromocyclododecane (HBCDD)	3194-55-6	0.05 µg/L	ND	
Octabromodiphenylethers (OctaBDEs)	32536-52-0	0.05 µg/L	ND	
Pentabromodiphenylethers (PentaBDEs)	32534-81-9	0.05 µg/L	ND	
Polybromobiphenyles (PBBs)	59536-65-1	0.05 µg/L	ND	
3,5,3',5'-Tetrabromo-bisphenol A (TBBPA)	79-94-7	0.5 µg/L	ND	
Tris (2-chloro-isopropyl) phosphate	13674-84-5	0.5 µg/L	ND	
Tris-(aziridinyl)-phosphin oxide (TEPA)	545-55-1	0.5 µg/L	ND	
Tris(1,3-dichlorisopropyl)phosphat (TDCPP)	13674-87-8	0.5 µg/L	ND	
Tris(2-chlorethyl)phosphate (TCEP)	115-96-8	0.05 µg/L	ND	
Tri-(2,3-dibromopropyl)phosphate (TRIS)	126-72-7	0.5 µg/L	ND	
Decabromobiphenyl (DecaBB)	13654-09-6	0.05 µg/L	ND	
Dibromobiphenyls (DiBB)	Various	0.05 µg/L	ND	
Octabromobiphenyls (OctaBB)	Various	0.05 µg/L	ND	
Dibromopropylether	21850-44-2	0.05 µg/L	ND	
Heptabromodiphenyl ether (HeptaBDE)	68928-80-3	0.05 µg/L	ND	
Hexabromodiphenyl ether (HexaBDE)	36483-60-0	0.05 µg/L	ND	
Monobromobiphenyls (MonoBB)	Multiple	0.05 µg/L	ND	
Monobromodiphenylethers (MonoBDEs)		0.05 µg/L	ND	
Nonabromobiphenyls (NonaBB)		0.05 µg/L	ND	
Nonabromodiphenyl ether (NonaBDE)	63936-56-1	0.05 µg/L	ND	
Tetrabromodiphenyl ether (TetraBDE)	40088-47-9	0.05 µg/L	ND	
Tribromodiphenylethers (TriBDEs)	Multiple	0.05 µg/L	ND	
Boric acid	10043-35-3 11113-50-1	10 µg/L	ND	Textile: 100
Diboron trioxide	1303-86-2	10 µg/L	ND	
Disodium octaborate	12008-41-2	10µg/L	ND	
Disodium tetraborate anhydrous	1303-96-4 1330-43-4	10 µg/L	ND	
Tetraboron disodium heptaoxide, hydrate	12267-73-1	10 µg/L	ND	

Remark: ND: Not Detected

11) Glycols / Glycol Ethers				
Test Method: USEPA: 8270 followed by analysis in GC-MS & LC-MS				
Substance name	CAS No.	Reporting limit	Result	ZDHC Discharge Limit (µg/L)
			A (µg/L)	
Bis(2-methoxyethyl)-ether	111-96-6	0.1 µg/l	ND	Textile : 50 Leather: 50
2-ethoxyethanol	110-80-5	0.1 µg/l	ND	
2-ethoxyethyl acetate	111-15-9	0.1 µg/l	ND	
Ethylene glycol dimethyl ether	110-71-4	0.1 µg/l	ND	
2-methoxyethanol	109-86-4	0.1 µg/l	ND	
2-methoxyethylacetate	110-49-6	0.1 µg/l	ND	
2-methoxypropyleacetate	70657-70-4	0.1 µg/l	ND	
Triethylene glycol dimethyl ether	112-49-2	0.1 µg/l	ND	

Remark: ND: Not Detected

12) Halogenated solvents				
Test Method: With reference USEPA 8260B, analysis by GCMS with Headspace				
Substance name	CAS No.	Reporting limit	Result	ZDHC Discharge Limit (µg/L)
			A (µg/L)	
1,2-Dichloromethane	75-09-2	1 µg/L	ND	Textile : 1.0 Leather: 1.0
Methylene Chloride	107-06-2	1 µg/L	ND	
Trichloroethane	79-01-6	1 µg/L	ND	
Tetrachloroethylene	127-18-4	1 µg/L	ND	

Remark: ND: Not Detected

13) Organotin compounds				
Test Method: With reference to ISO 17353 and followed by GCMS analysis				
Substance name	CAS No.	Reporting limit	Result	ZDHC Discharge Limit (µg/L)
			A (µg/L)	
Dipropyltin compounds (DPT)	Multiple	0.01 µg/L	ND	Textile : 0.01 Leather: 0.01
Mono-, di- and tri-butyltin derivatives		0.01 µg/L	ND	
Mono-, di- and tri-methyltin derivatives		0.01 µg/L	ND	
Mono-, di- and tri-octyltin derivatives		0.01 µg/L	ND	
Mono-, di- and tri-phenyltin Derivatives		0.01 µg/L	ND	
Tetrabutyltin compounds (TeBT)		0.01 µg/L	ND	
Tripropyltin Compounds (TPT)		0.01 µg/L	ND	
Tetraoctyltin compounds (TeOT)		0.01 µg/L	ND	
Tricyclohexyltin (TCyHT)		0.01 µg/L	ND	
Tetraethyltin Compounds (TeET)		0.01 µg/L	ND	

Remark: ND: Not Detected

14) Other/Miscellaneous Chemicals				
Test Method: GC-SOP-ANA-052 Solvent extraction followed by LCMS analysis				
# - Determination of total Boron and Total Zinc (Acid Digestion followed by analysis in ICP-MS)				
Substance name	CAS No.	Reporting limit	Result	ZDHC Discharge Limit (µg/L)
			A (µg/L)	
AEEA [2-(2-aminoethylamino)ethanol]	111-41-1	50 µg/L	ND	Textile: 500
Bisphenol A	80-05-7	3 µg/L	ND	Textile: 10
Thiourea	62-56-6	3 µg/L	ND	Textile: 50
Quinoline	91-22-5	3 µg/L	ND	Textile: 50
Borate, zinc salt#	12767-90-7	30 µg/L	ND	Textile: 100

Remark: ND: Not Detected,
Test is applicable to textile industry waste water.

15) Perfluorinated compounds (PFCs)

Test Method: With reference EN 12673:1999, USEPA 537, Solvent extraction followed by GCMS or LCMS analysis

Substance name	CAS No.	Reporting limit	Result	ZDHC Discharge Limit (µg/L)	
			A (µg/L)		
Perfluoropentanoic Acid (PFPeA) and salts	2706-90-3	0.01µg/L	ND	PFOS: Textile: 0.01 Leather: 0.01	
Perfluorohexanoic Acid (PFHxA) and salts	307-24-4	0.01µg/L	ND		
Perfluoroheptanoic Acid (PFHpA) and salts	375-85-9	0.01µg/L	ND		
HPFHpA, and salts	1546-95-8	0.01µg/L	ND		
Perfluorooctanoic Acid (PFOA) and salts	335-67-1	0.01µg/L	ND		PFOA: Textile: 1 Leather: 1
PF-3,7-DMOA, and salts	172155-07-6	0.01µg/L	ND		
Perfluorononanoic Acid (PFNA) and salts	375-95-1	0.01µg/L	ND		
Perfluorodecanoic Acid (PFDA) and salts	335-76-2	0.01µg/L	ND		
Perfluoroundecanoic Acid (PFUnDA) and salts	2058-94-8	0.01µg/L	ND		
4HPFUnA, and salts	34598-33-9	0.01µg/L	ND		
Perfluorododecanoic Acid (PFDoA) and salts	307-55-1	0.01µg/L	ND		
Perfluorotetradecanoic Acid (PFTeDA) and salts	376-06-7	0.01µg/L	ND		
Perfluorobutansulfonate (PFBS) and salts	375-73-5, 59933-66-3	0.01µg/L	ND		
Perfluorohexansulfonate (PFHxS) and salts	355-46-4	0.01µg/L	ND		
Perfluoroheptansulfonate (PFHpS) and salts	375-92-8	0.01µg/L	ND		
Perfluorooctansulfonate (PFOS) and salts	1763-23-1	0.01µg/L	ND		
1H,1H,2H,2H-PFOS, and salts	27619-97-2	0.01µg/L	ND		
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	0.1µg/L	ND		
N-methylperfluoro-1-octanesulfonamide (N-eFOSA)	31506-32-8	0.1µg/L	ND		
N-ethylperfluoro-1-octanesulfonamide (N-EtFOSA)	4151-50-2	0.1µg/L	ND		
1H,1H,2H,2H-perfluoro-1-octanol (6:2 FTOH)	647-42-7	0.1µg/L	ND		
1H,1H,2H,2H-perfluoro-1-decanol (8:2 FTOH)	678-39-7	0.1µg/L	ND		

Remark: ND: Not Detected

16) Phthalates					
Test Method: With reference to ISO 18856 or USEPA 8270D, Solvent extraction followed by GC/MS analysis					
Substance name	CAS No.	Reporting limit	Result		ZDHC Discharge Limit (µg/L)
			A (µg/L)		
Dibutylphthalate (DBP)	84-74-2	1 µg/L	ND		Textile: 10 Leather: 10
Di-(2-ethylhexyl)phthalate (DEHP)	117-81-7	1 µg/L	ND		
Benzylbutylphthalate (BBP)	85-68-7	1 µg/L	ND		
Di-iso-nonylphthalate (DINP)	28553-12-0	1 µg/L	ND		
	68515-48-0	1 µg/L	ND		
Di-n-octylphthalate (DNOP)	117-84-0	1 µg/L	ND		
Di-iso-decyl phthalate (DIDP)	26761-40-0	1 µg/L	ND		
	68515-49-1	1 µg/L	ND		
Di-iso-butylphthalate (DIBP)	84-69-5	1 µg/L	ND		
Di-n-hexylphthalate (DnHP)	84-75-3	1 µg/L	ND		
Di-(2-methoxyethyl)phthalate (DMEP)	117-82-8	1 µg/L	ND		
Di-C7-11-branched alkylphthalates (DHNUP)	68515-42-4, 68515-50-4	1 µg/L	ND		
Di-C6-8-branched alkylphthalates (DIHP)	71888-89-6, 84777-06-0	1 µg/L	ND		
Di-n-propylphthalate (DPRP)	131-16-8	1 µg/L	ND		
Di-iso-octylphthalate (DIOP)	27554-26-3	1 µg/L	ND		
Dicyclohexylphthalate (DCHP)	84-61-7	1 µg/L	ND		
Di-n-pentylphthalates	131-18-0	1 µg/L	ND		
Diisopentylphthalates	605-50-5	1 µg/L	ND		
Diethylphthalate (DEP)	84-66-2	1 µg/L	ND		
Dinonylphthalate (DNP)	84-76-4	1 µg/L	ND		

Remark: ND: Not Detected

17) Polycyclic Aromatic Hydrocarbons (PAHs)					
Test Method: With reference USEPA 8270, Solvent extraction with GCMS analysis					
Substance name	CAS No.	Reporting limit	Result		ZDHC Discharge Limit (Max)
			A (µg/L)	B (mg/kg)	
Acenaphthene	83-32-9	1µg/L	ND	ND	Water: Textile: 1.0 µg/L Leather: 1.0 µg/L Sludge: Textile: 0.2mg/kg
Acenaphthylene	208-96-8	1µg/L	ND	ND	
Anthracene	120-12-7	1µg/L	ND	ND	
Benza[a]anthracene	56-55-3	1µg/L	ND	ND	
Benzo[a]pyrene	50-32-8	1µg/L	ND	ND	
Benzo[b]fluoranthene	205-99-2	1µg/L	ND	ND	
Benzo[ghi]perylene	191-24-2	1µg/L	ND	ND	
Benzo[k]fluoranthene	207-08-9	1µg/L	ND	ND	
Chrysene	218-01-9	1µg/L	ND	ND	
Dibenzo[a,h]anthracene	53-70-3	1µg/L	ND	ND	
Fluoranthene	206-44-0	1µg/L	ND	ND	
Fluorene	86-73-7	1µg/L	ND	ND	
Indeno[1,2,3-cd]pyrene	193-39-5	1µg/L	ND	ND	
Naphthalene	91-20-3	1µg/L	ND	ND	
Phenanthrene	85-01-8	1µg/L	ND	ND	
Pyrene	129-00-0	1µg/L	ND	ND	
Benzo[e]pyrene	192-97-2	1µg/L	ND	ND	
Benzo[j]fluoranthene	205-82-3	1µg/L	ND	ND	

Remark: ND: Not Detected

Sludge Reporting Limit : 0.2mg/kg

18) Azo dyes / Amines				
Test Method: With reference to EN 14362-1&3 and followed by GCMS or LCMS Analysis				
Substance name	CAS No.	Reporting limit	Result	ZDHC Discharge Limit (Max µg/L)
			A (µg/L)	
4-Aminodiphenyl	92-67-1	0.1µg/L	ND	Textile: 0.1 Leather: 0.1
Benzidine	92-87-5	0.1µg/L	ND	
4-Chloro-o-toluidine	95-69-2	0.1µg/L	ND	
2-Naphthylamine	91-59-8	0.1µg/L	ND	
o-Aminoazotoluene (C.I. Solvent Yellow 3, C.I. 11160)	97-56-3	0.1µg/L	ND	
2-Amino-4-nitrotoluene	99-55-8	0.1µg/L	ND	
p-Chloroaniline	106-47-8	0.1µg/L	ND	
2,4-Diaminoanisole	615-05-4	0.1µg/L	ND	
4,4'-Diaminodiphenylmethane	101-77-9	0.1µg/L	ND	
3,3'-Dichlorobenzidine	91-94-1	0.1µg/L	ND	
3,3'-Dimethoxybenzidine	119-90-4	0.1µg/L	ND	
3,3'-Dimethylbenzidine	119-93-7	0.1µg/L	ND	
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	0.1µg/L	ND	
p-Cresidine; 6-methoxy-m-toluidine	120-71-8	0.1µg/L	ND	
4,4'-Methylene-bis-(2-chloroaniline)	101-14-4	0.1µg/L	ND	
4,4'-Oxydianiline	101-80-4	0.1µg/L	ND	
4,4'-Thiodianiline	139-65-1	0.1µg/L	ND	
o-Toluidine	95-53-4	0.1µg/L	ND	
2,4-Toluyldiamine	95-80-7	0.1µg/L	ND	
2,4,5-Trimethylaniline	137-17-7	0.1µg/L	ND	
o-Anisidine (2-Methoxyaniline)	90-04-0	0.1µg/L	ND	
C.I. Solvent Yellow 1 (p-Aminoazobenzol (pure))	60-09-3	0.1µg/L	ND	
2,4-Xylidine	95-68-1	0.1µg/L	ND	
2,6-Xylidine	87-62-7	0.1µg/L	ND	
2-Naphthylammoinumacetate	553-00-4	0.1µg/L	ND	
2,4,5-trimethylaniline hydrochloride	21436-97-5	0.1µg/L	ND	
4-chloro-o-toluidinium chloride	3165-93-3	0.1µg/L	ND	
4-methoxy-m-phenylenediammonium sulphate,2,4-diaminoanisole sulphate	39156-41-7	0.1µg/L	ND	

Remark: ND: Not Detected

19) UV Absorbers				
Test Method: : GC-SOP-ANA-052 Based on ISO: 22032 and analysis by GCMS analysis				
Substance name	CAS No.	Reporting limit	Result (µg/L)	ZDHC Discharge Limit (Max µg/L)
			A (µg/L)	
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl) phenol (UV-350)	36437-37-3	10 µg/L	ND	Textile: 100
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	10 µg/L	ND	
2-benzotriazol-2-yl-4,6-di-tertbutylphenol (UV-320)	3846-71-7	10 µg/L	ND	
2,4-Di-tert-butyl-6-(5-chlorobenzotriazole-2-yl) phenol (UV-327)	3864-99-1	10 µg/L	ND	

Remark: ND: Not Detected

20) VOC				
Test Method: With reference USEPA 8260, analysis by GCMS with Headspace				
Substance name	CAS No.	Reporting limit	Result (µg/L)	ZDHC Discharge Limit (Max µg/L)
			A (µg/L)	
Benzene	71-43-2	1µg/L	ND	Textile: 1.0 Leather: 1.0
o-Cresol	95-48-8	1µg/L	ND	
m-Cresol	106-44-5	1µg/L	ND	
p-Cresol	108-39-4	1µg/L	ND	
Xylene	1330-20-7	1µg/L	ND	Textile: 1.0
Toluene	108-88-3	1µg/L	ND	

Remark: ND: Not Detected

Sludge Parameter (Total Metal)

S. No.	Test Details	Test Method	Reporting Limit	Test Result	ZDHC Discharge Limit (Textile)	ZDHC Discharge Limit (Leather)
				B (mg/kg)		
1	Antimony	ISO: 11885	0.5 mg/kg	ND	5mg/kg	-
2	Arsenic	ISO: 11885	0.5 mg/kg	ND	5mg/kg	2mg/kg
3	Barium	ISO: 11885	5.0mg/kg	ND	200mg/kg	-
4	Cadmium	ISO: 11885	0.1mg/kg	ND	1mg/kg	2mg/kg
5	Cobalt	ISO: 11885	5.0mg/kg	ND	400mg/kg	-
6	Copper	ISO: 11885	1.0mg/kg	ND	50mg/kg	-
7	Lead	ISO: 11885	1.0mg/kg	ND	5mg/kg	2mg/kg
8	Nickel	ISO: 11885	1.0mg/kg	ND	20mg/kg	-
9	Selenium	ISO: 11885	1.0mg/kg	ND	5mg/kg	-
10	Silver	ISO: 11885	1.0mg/kg	ND	50mg/kg	-
11	T. Chromium	ISO: 11885	1.0mg/kg	ND	50mg/kg	-
12	Zinc	ISO: 11885	5mg/kg	ND	400mg/kg	-
13	Chromium (VI)	USEPA 218.6	0.05mg/kg	ND	20mg/kg	2mg/kg
14	Mercury	ISO: 11885	0.01mg/kg	ND	1mg/kg	0.2mg/kg
15	Cyanide	APHA 4500 CN - C & E	0.5mg/kg	ND	20mg/kg	-
16	pH	EPA SW 9045	0.1mg/l	7.6 (20% aqu Suspension)	-	-
17	% Solid	CPCB method based on SW 846	%	71.6	-	-
18	Paint Filter Test	EPA 9095	-	No liquid observed	-	-
19	Fecal Coliform	IS: 1622 / EPA 1681	10MPN/100gm	160MPN	-	-

Sample Photo



End of the Test Report