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`Test Report - Softline

ULR - TC553923000011800P Test Report No.: 0232412163

Client: Jain Cord Industries Pvt. Ltd

Contact Person: Mr. Ankush Jain

Buyer Name: Self reference as per ZDHC Guideline

Factory Details

Factory Name : Jain Cord Industries Pvt. Ltd

Factory Address Village-Dautana, Chandauli Road, Chatta, Mathura, UP 281401

.

Discharge Type of Wastewater : Direct discharge

Average total industrial

wastewater generated 3000 m³ per day

:

For Indirect discharge

Name of public wastewater

treatment plants

Address of public wastewater

-treatment plants

Sampling Details

ZDHC Sampler Certificate No. C74D106818633

:

Sampling Date : 2023-04-26 Sample Receiving Date : 2023-04-27

Testing Period : 2023-04-27 to 2023-05-09

Sampling Method: Sampling has been done as per sampling & preservation guidance for

wastewater & Sludge (MS-0038904 With ref. to ISO 5667-1, 3, 10,

13,15)

Sample Type	Total Volume / Weight	1	2	3	4	5	6
Effluent Wastewater	10L	11:45	12:45	13:45	14:45	15:45	16:45
Untreated Wastewater	10L	11:30	12:30	13:30	14:30	15:30	16:30
Incoming Water (*RCA)	-	-	-	-	-	ı	ı
Sludge	2kg	16:00	-	-	-	-	-
Specifications	ZDHC Wastewater Guidelines Version 2.1 (November 2022)						

Note-1) *RCA: Incoming water testing only done for route cause analysis (RCA), based on customer request.





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For and on behalf of TÜV Rheinland (India) Pvt Ltd.

09th May 2023

Manokamna Mishra

Technical Executive

Vikas Pipal

Analytical Lab Manager

Test result is drawn according to the kind and extent of tests performed. The laboratory employs simple acceptance rule in making pass or fail decisions on test results with no guard band. This test report relates to the above mentioned test sample. Without permission of the test center this taest report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.

Material List:

Field ID	Sample Type	Sample Description	
M001	Raw Wastewater	Untreated Wastewater*	
M002	Discharge Wastewater	Effluent (Direct Discharge*)	
M003	Sludge	Sludge*	

Discipline Group

NABL – Chemical Testing Pollution & Environment

Notes:

* **Effluent:** Treated or partially treated wastewater that leaves the facility boundary.

* **Direct Discharge:** A point source that discharges wastewater to stream, lakes, oceans, or other receiving bodies.

Distribution of wastewater onto land is also considered a type of direct discharge. Municipal bodies and suppliers that introduce pollution through a defined conveyance or system such as

outlet pipes are direct dischargers.

* Indirect Discharge: The discharge of wastewater through a sanitary or industrial wastewater sewer system to a

central or common effluent treatment plant (CETP) not owned and/ or operated by the supplier

discharging the pollutants.

* Untreated Wastewater: (Previously referred to as 'Raw wastewater'), Wastewater that is collected prior to any

treatment.

* Sludge: the residual solid, semisolid, or slurry material generated as a by-product

of wastewater treatment processes, including primary, secondary and tertiary (ZLD)

treatments.

* Incoming Water: Water that is supplied to a manufacturing process, usually withdrawn from surface water

bodies, groundwater, collected from rainfall, supplied by municipalities, etc.





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Test specification:

Test result summary

M001- Untreated Wastewater

ZDHC MRSL Wastewater Parameters

Table 1A: Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs):	Comply
Including All Isomers	
Table 1B: Anti- Microbials & Biocides	Comply
Table 1C: Chlorinated Parafins	Comply
Table 1D: Chlorobenzenes and Chlorotoluenes	Comply
Table 1E: Chlorophenols	Comply
Table 1F: Dimethyl Formamide (DMFa)	Comply
Table 1G: Dyes – Carcinogenic or Equivalent Concern	Comply
Table 1H: Dyes – Disperse (Allergenic)	Comply
Table 1I: Dyes – Navy Blue Colourant	Comply
Table 1J: Flame Retardants	Comply
Table 1K: Glycols / Glycol Ethers	Comply
Table 1L: Halogenated Solvents	Comply
Table 1M: Organotin Compounds	Comply
Table 1N: Other/Miscellaneous Chemicals	Comply
Table 10: Perfluorinated and Polyfluorinated Chemicals (PFCs)	Comply
Table 1P: Phthalates – including all other esters of ortho-phthalic acid	Comply
Table 1Q: Polycyclic Aromatic Hydrocarbons (PAHs)	Comply
Table 1R:Restricted Aromatic Amines (Cleavable from Azo- colourants)	Comply
Table 1S: UV Absorbers	Comply
Table 1T: Volatile Organic Compounds (VOC)	Comply

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Test specification: Test result summary

M002- Effluent

ZDHC Heavy Metals Wastewater Parameters

Table 2: Heavy Metals (Fullfill Aspirational limit)

Test specification: Test result summary

M002- Effluent

ZDHC Conventional Parameters and Anions

Table 3: pH value	Fullfill Aspirational limit
Table 3: Temperature difference	Not applicable
Table 3: E.coli #	Fail
Table 3: Colour (436nm; 525nm; 620nm)	Fullfill progressive limit
Table 3: Persistent Foam	Fullfill Aspirational limit
Table 3: Wastewater Flowrate	Refer results
Table 3: Ammonium-Nitrogen	Fullfill Foundational limit
Table 3: AOX #	Fullfill progressive limit
Table 3: Biochemical Oxygen Demand 5-days concentration (BOD5)	Fullfill progressive limit
Table 3: Chemical Oxygen Demand (COD)	Fullfill Foundational limit
Table 3: Dissolved Oxygen (DO)	Refer results
Table 3: Oil & Grease	Fullfill Aspirational limit
Table 3: Total Phenols / Phenol Index	Fullfill Aspirational limit
Table 3: Total Chlorine	Refer results
Table 3: Total Dissolved Solids (TDS)	Refer results
Table 3: Total Nitrogen	Fullfill Foundational limit
Table 3: Total Phosphorus	Fullfill Foundational limit
Table 3: Total Suspended Solids (TSS)	Fullfill Foundational limit
Table 3: Chloride	Refer results
Table 3: Cyanide, total #	Fullfill Aspirational limit
Table 3: Dissolved anion – Sulfate	Refer results
Table 3: Dissolved anion - Sulfide (S2-)	Fullfill Aspirational limit
Table 3: Dissolved anion – Sulfite #	Fullfill Aspirational limit

Remark: Temperature parameter is "Not applicable", due to final discharge point is not accessible.





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Test specification:

Test result summary

M003- Sludge

ZDHC Conventional Parameters and Anions

Table 4B: Heavy metals (Threshold limits)	Not Comply
Table 4B: Leachate Metals #	Comply
Table 4A/4D: Cyanide #	Comply
Table 4A/4C: pH	Comply
Table 4A/4C: % Solids	Comply
Table 4A/4C: Fecal Coliform #	Comply
Table 4A/4C: Paint Filter Test	Comply
Table 4A/4C: Alkyl phenol(AP) and Alkyl phenol Ethoxylates (APEOs): including all isomers	Comply
Table 4A/4C: Polycyclic Aromatic Hydrocarbons (PAHs)	Comply
Table 4A/4C: Chlorotoluenes	Comply

[#] Marked test are subcontracted to TUV Rheinland approved lab





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TEST RESULT

ZDHC MRSL WASTEWATER PARAMETERS

Table 1A: Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): Including All Isomers

Test method: APs: ISO 18857-2 (modified Dichloromethane extraction),

APEOs: OPEO/NPEO (n>2): ISO 18857-2, OPEO/NPEO (n=1,2):ISO 18857-2 (modified

dichloromethane extraction)

Parameter	CAS no.	Reporting	ZDHC Limit	Result
Parameter	CAS IIO.	Limit (µg/L)	(μg/L)	M001 (μg/L)
Nonylphenol ethoxylates (NPEO)	9016-45-9 26027-38-3 37205-87-1 68412-54-4 127087-87-0	5	Textile and Leather: 5	n.d.
Nonylphenol (NP), mixed isomers	104-40-5 11066-49-2 25154-52-3 84852-15-3	5	Textile and Leather: 5	n.d.
Octylphenol ethoxylates (OPEO)	9002-93-1 9036-19-5 68987-90-6	5	Textile and Leather: 5	n.d.
Octylphenol (OP), mixed isomers	140-66-9 1806-26-4 27193-28-8	5	Textile and Leather: 5	n.d.
Conclusion				Comply

Abbreviation: µg/ L = microgram per liter

RL = Reporting Limit

n.d. = not detected (< Reporting Limit)

Table 1B: Anti- Microbials & Biocides

Test method: USEPA 8270E (Solvent extraction, determination by GC-MS)

Parameter	CAS no.	Reporting	ZDHC Limit	Result
Parameter	CAS IIO.	Limit (µg/L)	(μg/L)	M001 (μg/L)
o-Phenylphenol (+salts)	90-43-7	100	Textile only: 100	n.d.
Triclosan	3380-34-5	100	Textile and Leather: 100	n.d.
Permethrin	Multiple	500	Textile and Leather: 500	n.d.
Conclusion				Comply

Abbreviation: μg/ L = microgram per liter

RL = Reporting Limit





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Table 1C: Chlorinated Parafins

Test method: Analysis: Methods with GC-MS(NCI) for: SCCPs (ISO 18219-1:2021) MCCPs (ISO 18219-2:2021)

Parameter	CAS no.	Reporting Limit (µg/L)	ZDHC Limit (µg/L)	Result M001 (µg/L)
Medium-chain Chlorinated paraffins (MCCPs) (C14-C17)	85535-85-9	5	Textile only: 5	n.d.
Short-chain Chlorinated paraffin (C10 – C13)	85535-84-8	5	Textile only: 5	n.d.
Conclusion				Comply

Abbreviation: µg/L = microgram per liter

RL = Reporting Limit

n.d. = not detected (< Reporting Limit)

Table 1D: Chlorobenzenes and Chlorotoluenes

Test method: USEPA 8260D, 8270E, determination by GC-MS

Parameter	CAS no.	Reporting Limit (µg/L)	ZDHC Limit (µg/L)	Result M001 (µg/L)
1,2-dichlorobenzene	95-50-1	0.2	Textile and Leather: 0.2	n.d.
Other isomers of mono-, di-, tri-, tetra-, penta- and hexa- Chlorobenzene and mono-, di-, tri-, tetra- and penta- chlorotoluene	Multiple	0.2	Textile and Leather: 0.2	n.d.
Conclusion				Comply

Abbreviation: µg/L = microgram per liter

RL = Reporting Limit





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Table 1E: Chlorophenols

Test method: USEPA 8270E, BS EN 12673-1999, determination by GC-MS

Davamatav	CAC	Reporting	ZDHC Limit	Result
Parameter	CAS no.	Limit (µg/L)	(µg/L)	M001 (μg/L)
2-chlorophenol	95-57-8	0.5	Textile and Leather: 0.5	n.d.
3-chlorophenol	108-43-0	0.5	Textile and Leather: 0.5	n.d.
4-chlorophenol	106-48-9	0.5	Textile and Leather: 0.5	n.d.
2,3-dichlorophenol	576-24-9	0.5	Textile and Leather: 0.5	n.d.
2,4-dichlorophenol	120-83-2	0.5	Textile and Leather: 0.5	n.d.
2,5-dichlorophenol	583-78-8	0.5	Textile and Leather: 0.5	n.d.
2,6-dichlorophenol	87-65-0	0.5	Textile and Leather: 0.5	n.d.
3,4-dichlorophenol	95-77-2	0.5	Textile and Leather: 0.5	n.d.
3,5-dichlorophenol	591-35-5	0.5	Textile and Leather: 0.5	n.d.
2,3,4-trichlorophenol	15950-66-0	0.5	Textile and Leather: 0.5	n.d.
2,3,5-trichlorophenol	933-78-8	0.5	Textile and Leather: 0.5	n.d.
2,3,6-trichlorophenol	933-75-5	0.5	Textile and Leather: 0.5	n.d.
2,4,5-trichlorophenol	95-95-4	0.5	Textile and Leather: 0.5	n.d.
2,4,6-trichlorophenol	88-06-2	0.5	Textile and Leather: 0.5	n.d.
3,4,5-trichlorophenol	609-19-8	0.5	Textile and Leather: 0.5	n.d.
2,3,5,6-tetrachlorophenol	935-95-5	0.5	Textile and Leather: 0.5	n.d.
2,3,4,6-tetrachlorophenol	58-90-2	0.5	Textile and Leather: 0.5	n.d.
2,3,4,5-tetrachlorophenol	4901-51-3	0.5	Textile and Leather: 0.5	n.d.
Pentachlorophenol (PCP)	87-86-5	0.5	Textile and Leather: 0.5	n.d.
Conclusion				Comply

Abbreviation: µg/L = microgram per liter

RL = Reporting Limit

n.d. = not detected (< Reporting Limit)

Table 1F: Dimethyl Formamide (DMFa)

Test method: EPA 8015, EPA 8270 E: 2018, determination by GC-MS

Parameter	CAS no.	Reporting Limit (µg/L)	ZDHC Limit (µg/L)	Result M001 (µg/L)
Dimethyl formamide; N,N-dimethylformamide (DMFa)	68-12-2	1000	Textile only: 1000	n.d.
Conclusion				Comply

Abbreviation: µg/L = microgram per liter

RL = Reporting Limit





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Table 1G: Dyes - Carcinogenic or Equivalent Concern

Test method: DIN 54231:2005, Liquid extraction, determination by LC-MS/MS

Parameter	CAS no.	Reporting	ZDHC Limit	Result
	CAS IIU.	Limit (µg/L)	(μg/L)	M001 (μg/L)
Basic violet 3 with >0.1% of Michler's Ketone	548-62-9	250	Textile and Leather: 500	n.d.
C.I. Acid Red 26	3761-53-3	250	Textile and Leather: 500	n.d.
C.I. Acid Violet 49	1694-09-3	250	Textile and Leather: 500	n.d.
C.I. Basic Blue 26 (with Michler's Ketone > 0.1%)	2580-56-5	250	Textile and Leather: 500	n.d.
C.I. Basic Green 4 (Malachite Green Chloride)	569-64-2	250	Textile and Leather: 500	n.d.
C.I. Basic Green 4 (Malachite Green Oxalate)	2437-29-8	250	Textile and Leather: 500	n.d.
C.I. Basic Green 4 (Malachite Green)	10309-95-2	250	Textile and Leather: 500	n.d.
C.I. Basic Red 9	569-61-9	250	Textile and Leather: 500	n.d.
C.I. Basic Violet 14	632-99-5	250	Textile and Leather: 500	n.d.
C.I. Direct Black 38	1937-37-7	250	Textile and Leather: 500	n.d.
C.I. Direct Blue 6	2602-46-2	250	Textile and Leather: 500	n.d.
C.I. Direct Red 28	573-58-0	250	Textile and Leather: 500	n.d.
C.I. Disperse Blue 1	2475-45-8	250	Textile only: 500	n.d.
C.I. Disperse Blue 3	2475-46-9	250	Textile only: 500	n.d.
Disperse Orange 11	82-28-0	250	Textile only: 500	n.d.
Conclusion				Comply

Abbreviation: µg/L = microgram per liter

RL = Reporting Limit





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Table 1H: Dyes - Disperse (Allergenic)

Test method: DIN 54231:2005, Liquid extraction, determination by LC-MS/MS,

Parameter	CAS no.	Reporting	ZDHC Limit	Result
Parameter	CAS IIO.	Limit (µg/L)	(μg/L)	M001 (μg/L)
Disperse Blue 102	12222-97-8	50	Textile only: 50	n.d.
Disperse Blue 106	12223-01-7	50	Textile only: 50	n.d.
Disperse Blue 124	61951-51-7	50	Textile only: 50	n.d.
Disperse Blue 26	3860-63-7	50	Textile only: 50	n.d.
Disperse Blue 35	12222-75-2	50	Textile only: 50	n.d.
Disperse Blue 35	56524-77-7	50	Textile only: 50	n.d.
Disperse Blue 7	3179-90-6	50	Textile only: 50	n.d.
Disperse Brown 1	23355-64-8	50	Textile only: 50	n.d.
Disperse Orange 1	2581-69-3	50	Textile only: 50	n.d.
Disperse Orange 3	730-40-5	50	Textile only: 50	n.d.
Disperse Orange 37/59/76	13301-61-6	50	Textile only: 50	n.d.
Disperse Red 1	2872-52-8	50	Textile only: 50	n.d.
Disperse Red 11	2872-48-2	50	Textile only: 50	n.d.
Disperse Red 17	3179-89-3	50	Textile only: 50	n.d.
Disperse Yellow 1	119-15-3	50	Textile only: 50	n.d.
Disperse Yellow 3	2832-40-8	50	Textile only: 50	n.d.
Disperse Yellow 39	12236-29-2	50	Textile only: 50	n.d.
Disperse Yellow 49	54824-37-2	50	Textile only: 50	n.d.
Disperse Yellow 9	6373-73-5	50	Textile only: 50	n.d.
Conclusion				Comply

Abbreviation: µg/L = microgram per liter

RL = Reporting Limit

n.d. = not detected (< Reporting Limit)

11: Dyes - Navy Blue Colourant

Test method: Liquid extraction, determination by LC-MS/MS, Based on DIN 54231:2005

Parameter	CAS no.	Reporting Limit (µg/L)	ZDHC Limit (µg/L)	Result M001 (µg/L)
Component 1: C39H23Cl-CrN7O12S 2Na	118685-33-9	250	Textile and Leather: 500	n.d.
Component 2: LC-MS C46H-30CrN10O20S2 3Na	Not Allocated	250	Textile and Leather: 500	n.d.
Conclusion				Comply

Abbreviation: µg/L = microgram per liter

RL = Reporting Limit





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Table 1J: Flame Retardants

Test method: USEPA 8270E, EN ISO 22032, USEPA 527 & USEPA 8321B

determination by GC-MS & (total boron via ICP-MS)

Parameter	CAS no.	Reporting Limit (µg/L)	ZDHC Limit (μg/L)	Result M001 (µg/L)
2,2-bis(bromomethyl)-	3296-90-0	25	Textile and Leather: 25	n.d.
1,3-propanediol (BBMP) Bis(2,3-dibromopropyl) phosphate (BIS)	5412-25-9	25	Textile and Leather: 25	n.d.
Decabromodiphenyl ether (DecaBDE)	1163-19-5	25	Textile and Leather: 25	n.d.
Hexabromocyclodecane (HBCDD)	3194-55-6	25	Textile and Leather: 25	n.d.
Octabromodiphenyl ether (OctaBDE)	32536-52-0	25	Textile and Leather: 25	n.d.
Pentabromodiphenyl ether (PentaBDE)	32534-81-9	25	Textile and Leather: 25	n.d.
Polybromobiphenyls (PBB)	59536-65-1	25	Textile and Leather: 25	n.d.
Tetrabromobisphenol A (TBBPA)	79-94-7	25	Textile and Leather: 25	n.d.
Tris-(2-chloro-1-methylethyl) phosphate (TCPP)	13674-84-5	25	Textile and Leather: 25	n.d.
Tris(1-aziridinyl)phosphine oxide) (TEPA)	545-55-1	25	Textile and Leather: 25	n.d.
Tris(1,3-dichloro-isopropyl) phosphate (TDCP)	13674-87-8	25	Textile and Leather: 25	n.d.
Tris(2-chloroethyl) phosphate (TCEP)	115-96-8	25	Textile and Leather: 25	n.d.
Tris(2,3,-dibromopropyl)- phosphate (TRIS)	126-72-7	25	Textile and Leather: 25	n.d.
Decabromobiphenyl (DecaBB)	13654-09-6	25	Textile only: 25	n.d.
Dibromobiphenyls (DiBB)	Multiple	25	Textile only: 25	n.d.
Octabromobiphenyls (OctaBB)		25	Textile only: 25	n.d.
Dibromopropylether	21850-44-2	25	Textile only: 25	n.d.
Heptabromodiphenyl ether (HeptaBDE)	68928-80-3	25	Textile only: 25	n.d.
Hexabromodiphenyl ether (HexaBDE)	36483-60-0	25	Textile only: 25	n.d.
Monobromobiphenyls (MonoBB)	Multiple	25	Textile only: 25	n.d.
Monobromodiphenylethers (MonoBDEs)		25	Textile only: 25	n.d.
Nonabromobiphenyls (NonaBB)		25	Textile only: 25	n.d.
Nonabromodiphenyl ether (NonaBDE)	63936-56-1	25	Textile only: 25	n.d.
Tetrabromodiphenyl ether (TetraBDE)	40088-47-9	25	Textile only: 25	n.d.
Boric acid	10043-35-3 /11113-50-1	100	Textile only: 100 ^a	n.d.
Diboron trioxide	1303-86-2	100	Textile only: 100 ^a	n.d.
Disodium octaborate	12008-41-2	100	Textile only: 100 ^a	n.d.
Disodium tetraborate anhydrous	1303-96-4 / 1330-43-4	100	Textile only: 100 ^a	n.d.
Tetraboron disodium heptaoxide, hydrate	12267-73-1	100	Textile only: 100 ^a	n.d.





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Conclusion Comply

Remark: a) Limit refers to elemental boron, not the salt.

Abbreviation: µg/ L = microgram per liter

RL = Reporting Limit

n.d. = not detected (< Reporting Limit)

Table 1K: Glycols / Glycol Ethers

Test method: US EPA 8270 E: 2018 (Liquid Extraction, determination by GC-MS)

Parameter	CAS no.	Reporting	ZDHC Limit	Result
	CAS IIO.	Limit (µg/L)	(µg/L)	M001 (μg/L)
2-ethoxyethanol	110-80-5	20	Textile and Leather: 50	n.d.
2-ethoxyethyl acetate	111-15-9	20	Textile and Leather: 50	n.d.
2-methoxyethanol	109-86-4	20	Textile and Leather: 50	n.d.
2-methoxyethylacetate	110-49-6	20	Textile and Leather: 50	n.d.
2-methoxypropylacetate	70657-70-4	20	Textile and Leather: 50	n.d.
Bis(2-methoxyethyl)-ether	111-96-6	20	Textile and Leather: 50	n.d.
Ethylene glycol dimethyl ether	110-71-4	20	Textile and Leather: 50	n.d.
Triethylene glycol dimethyl ether	112-49-2	20	Textile and Leather: 50	n.d.
Conclusion				Comply

Abbreviation: µg/L = microgram per liter

RL = Reporting Limit

n.d. = not detected (< Reporting Limit)

Table 1L: Halogenated Solvents

Test method: US EPA 8260 D, Purge and Trap, GC-MS

Parameter	CAS no.	Reporting	ZDHC Limit	Result
Parameter	CAS IIO.	Limit (µg/L)	(μg/L)	M001 (μg/L)
1,2-dichloroethane	107-06-2	1	Textile and Leather: 1	n.d.
Methylene chloride	75-09-2	1	Textile and Leather: 1	n.d.
Tetrachloroethylene	127-18-4	1	Textile and Leather: 1	n.d.
Trichloroethylene	79-01-6	1	Textile and Leather: 1	n.d.
Conclusion				Comply

Abbreviation: µg/ L = microgram per liter

RL = Reporting Limit





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Table 1M: Organotin Compounds

Test method: ISO 17353 (Liquid Extraction, determination by GC-MS)

Parameter	CAS no.	Reporting	ZDHC Limit	Result
Farameter	CAS IIU.	Limit (µg/L)	(μg/L)	M001 (μg/L)
Dipropyltin compounds (DPT)	Multiple	0.01	Textile and Leather: 0.01	n.d.
Mono-, di- and tri-butyltin derivatives		0.01	Textile and Leather: 0.01	n.d.
Mono-, di- and tri-methyltin derivatives		0.01	Textile and Leather: 0.01	n.d.
Mono-, di- and tri-octyltin derivatives		0.01	Textile and Leather: 0.01	n.d.
Mono-, di- and tri-phenyltin derivatives		0.01	Textile and Leather: 0.01	n.d.
Tetrabutyltin compounds (TeBT)		0.01	Textile and Leather: 0.01	n.d.
Tripropyltin Compounds (TPT)		0.01	Textile and Leather: 0.01	n.d.
Tetraoctyltin compounds (TeOT)		0.01	Textile and Leather: 0.01	n.d.
Tricyclohexyltin (TCyHT)		0.01	Textile and Leather: 0.01	n.d.
Tetraethyltin Compounds (TeET)		0.01	Textile and Leather: 0.01	n.d.
Conclusion				Comply

Abbreviation: µg/L = microgram per liter

RL = Reporting Limit

n.d. = not detected (< Reporting Limit)

Table 1N: Other/Miscellaneous Chemicals

Test method: Liquid extraction, determination by LC-MS/MS

Borate, zinc salt: Determined as total boron and total zinc via ICP-MS

Parameter	CAS no.	Reporting Limit (µg/L)	ZDHC Limit (µg/L)	Result M001 (µg/L)
AEEA [2-(2- aminoethylamino)ethanol]	111-41-1	50	Textile and Leather: 500	n.d.
Bisphenol A	80-05-7	5	Textile and Leather: 10	n.d.
Thiourea	62-56-6	10	Textile and Leather: 50	n.d.
Quinoline	91-22-5	50	Textile and Leather: 50	n.d.
Borate, zinc salt	12767-90-7	100	Textile and Leather: 100	n.d.
Conclusion				Comply

Abbreviation: µg/L = microgram per liter

RL = Reporting Limit





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Table 10: Perfluorinated and Polyfluorinated Chemicals (PFCs)

Test method: PFCs: EPA 537.1:2020, LC-MSMS

FTOH: BS EN 12673- 1999 (Derivatisation with acetic anhydride, determination by GC-MS)

Parameter	CAS no.	Reporting Limit (µg/L)	ZDHC Limit (µg/L)	Result M001 (µg/L)
Perfluorooctane sulfonate (PFOS) and related substances, Perfluorooctanoic acid (PFOA)	Multiple	0.01	Textile and Leather: 0.01	n.d.
Perfluorooctanoic acid (PFOA) related substances		0.2	Textile and Leather: 1	n.d.
Conclusion				Comply

Abbreviation: $\mu g/L = microgram per liter$

RL = Reporting Limit





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Table 1P: Phthalates - including all other esters of ortho-phthalic acid

Test method: USEPA 8270E: 2018, ISO 18856, (Dichloromethane extraction, determination by GC-MS)

Davamatav	CAS no.	Reporting	ZDHC Limit	Result
Parameter	CAS no.	Limit (µg/L)	(µg/L)	M001 (μg/L)
1,2-benzenedicarboxylic	71888-89-6	10	Textile and Leather: 10	n.d.
acid, di-C6-8 branched and liearalkyl esters, C7-	84777-06-0			
rich (DIHP)				
1,2-benzenedicarboxylic	68515-42-4	10	Textile and Leather: 10	n.d.
acid, di-C7-11 branched	68515-50-4	10	Textile and Educier. To	n.d.
and liearalkyl esters				
(DHNUP)				
Bis(2-methoxyethyl)	117-82-8	10	Textile and Leather: 10	n.d.
phthalate (DMEP)				
Butyl benzyl phthalate	85-68-7	10	Textile and Leather: 10	n.d.
(BBP)				
Di-cyclohexyl phthalate (DCHP)	84-61-7	10	Textile and Leather: 10	n.d.
Di-iso-decyl phthalate	26761-40-0	10	Textile and Leather: 10	n.d.
(DIDP)	20701 100		Toxulo and Eduction. To	Ti.d.
Di-iso-octyl phthalate	27554-26-3	10	Textile and Leather: 10	n.d.
(DIOP)				
Di-isobutyl phthalate	84-69-5	10	Textile and Leather: 10	n.d.
(DIBP)	<u> </u>			
Di-isononyl phthalate (DINP)	28553-12-0	10	Textile and Leather: 10	n.d.
Di-n-hexyl phthalate	84-75-3	10	Textile and Leather: 10	n.d.
(DnHP)	04-73-3	10	Textile and Leather. To	n.u.
Di-n-octyl phthalate	117-84-0	10	Textile and Leather: 10	n.d.
(DNOP)				
Di-n-pentylphthalates	131-18-0	10	Textile and Leather: 10	n.d.
Di-n-propyl phthalate	131-16-8	10	Textile and Leather: 10	n.d.
(DPRP)				
Di(ethylhexyl) phthalate	117-81-7	10	Textile and Leather: 10	n.d.
(DEHP)	84-74-2	10	Taytile and Leather, 10	n d
Dibutyl phthalate (DBP)	84-74-2	10 10	Textile and Leather: 10 Textile and Leather: 10	n.d. n.d.
Diethyl phthalate (DEP) Diisopentylphthalates	605-50-5	10	Textile and Leather: 10	n.a. n.d.
Dinonyl phthalate (DNP)	84-76-4	10	Textile and Leather: 10	n.d.
Conclusion	04-70-4	10	rexule and Leather. 10	Comply
Conclusion				Comply

Abbreviation: µg/L = microgram per liter

RL = Reporting Limit





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Table 1Q: Polycyclic Aromatic Hydrocarbons (PAHs)

Test method: USEPA 3541, USEPA 3550C, USEPA 3640A & 8270E, (Solvent extraction, determination by GC-MS)

Parameter	CAS no	Reporting	ZDHC Limit	Result
Parameter	CAS no.	Limit (µg/L)	(μg/L)	M001 (μg/L)
Acenaphthene	83-32-9	0.2	Textile and Leather: 1	n.d.
Acenaphthylene	208-96-8	0.2	Textile and Leather: 1	n.d.
Anthracene	120-12-7	0.2	Textile and Leather: 1	n.d.
Benzo[a]anthracene	56-55-3	0.2	Textile and Leather: 1	n.d.
Benzo[a]pyrene (BaP)	50-32-8	0.2	Textile and Leather: 1	n.d.
Benzo[b]fluoranthene	205-99-2	0.2	Textile and Leather: 1	n.d.
Benzo[e]pyrene	192-97-2	0.2	Textile and Leather: 1	n.d.
Benzo[ghi]perylene	191-24-2	0.2	Textile and Leather: 1	n.d.
Benzo[j]fluoranthene	205-82-3	0.2	Textile and Leather: 1	n.d.
Benzo[k]fluoranthene	207-08-9	0.2	Textile and Leather: 1	n.d.
Chrysene	218-01-9	0.2	Textile and Leather: 1	n.d.
Dibenz[a,h]anthracene	53-70-3	0.2	Textile and Leather: 1	n.d.
Fluoranthene	206-44-0	0.2	Textile and Leather: 1	n.d.
Fluorene	86-73-7	0.2	Textile and Leather: 1	n.d.
Indeno[1,2,3-cd]pyrene	193-39-5	0.2	Textile and Leather: 1	n.d.
Naphthalene	91-20-3	0.2	Textile and Leather: 1	n.d.
Phenanthrene	85-01-8	0.2	Textile and Leather: 1	n.d.
Pyrene	129-00-0	0.2	Textile and Leather: 1	n.d.
Conclusion				Comply

Abbreviation: µg/L = microgram per liter

RL = Reporting Limit





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Table 1R: Restricted Aromatic Amines (Cleavable from Azo-colourants)

Test method: 8270 E, EN ISO 14362-1 & ISO14362-3, determination by GC-MS

Damawastan	040	Reporting	ZDHC Limit	Result
Parameter	CAS no.	Limit (µg/L)	(µg/L)	M001 (µg/L)
2-naphthylamine	91-59-8	0.1	Textile and Leather: 0.1	n.d.
2- Naphthylammoniumacetate	553-00-4	0.1	Textile and Leather: 0.1	n.d.
2,4-xylidine	95-68-1	0.1	Textile and Leather: 0.1	n.d.
2,4,5-trimethylaniline	137-17-7	0.1	Textile and Leather: 0.1	n.d.
2,4,5-trimethylaniline hydrochloride	21436-97-5	0.1	Textile and Leather: 0.1	n.d.
2,6-xylidine	87-62-7	0.1	Textile and Leather: 0.1	n.d.
3,3'-dichlorobenzidine	91-94-1	0.1	Textile and Leather: 0.1	n.d.
3,3-dimethoxylbenzidine	119-90-4	0.1	Textile and Leather: 0.1	n.d.
3,3-dimethylbenzidine	119-93-7	0.1	Textile and Leather: 0.1	n.d.
4-aminoazobenzene	60-09-3	0.1	Textile and Leather: 0.1	n.d.
4-aminodiphenyl	92-67-1	0.1	Textile and Leather: 0.1	n.d.
4-chloro-o-toluidine	95-69-2	0.1	Textile and Leather: 0.1	n.d.
4-chloro-o-toluidinium chloride	3165-93-3	0.1	Textile and Leather: 0.1	n.d.
4-chloroaniline	106-47-8	0.1	Textile and Leather: 0.1	n.d.
4-methoxy-m-phenylene diammonium sulphate; 2,4-diaminoanisole sulphate	39156-41-7	0.1	Textile and Leather: 0.1	n.d.
4-methoxy-m- phenylenediamine	615-05-4	0.1	Textile and Leather: 0.1	n.d.
4-methyl-m- phenylenediamine	95-80-7	0.1	Textile and Leather: 0.1	n.d.
4,4-methylenebis-(2- chloro-aniline)	101-14-4	0.1	Textile and Leather: 0.1	n.d.
4,4-methylenédi-o-toluidine	838-88-0	0.1	Textile and Leather: 0.1	n.d.
4,4-methylenedianiline	101-77-9	0.1	Textile and Leather: 0.1	n.d.
4,4-oxydianiline	101-80-4	0.1	Textile and Leather: 0.1	n.d.
4,4-thiodianiline	139-65-1	0.1	Textile and Leather: 0.1	n.d.
5-nitro-o-toluidine	99-55-8	0.1	Textile and Leather: 0.1	n.d.
6-methoxy-m-toluidine	120-71-8	0.1	Textile and Leather: 0.1	n.d.
Benzidine	92-87-5	0.1	Textile and Leather: 0.1	n.d.
o-aminoazotoluene	97-56-3	0.1	Textile and Leather: 0.1	n.d.
o-anisidine	90-04-0	0.1	Textile and Leather: 0.1	n.d.
o-toluidine	95-53-4	0.1	Textile and Leather: 0.1	n.d.
Conclusion				Comply

Abbreviation: $\mu g/L = microgram per liter$

RL = Reporting Limit





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Table 1S: UV Absorbers

Test method: ISO 22032, USEPA 527 and USEPA 8321B, USEPA 8270, EPA 3510 C. Dichloromethane Extraction, determination by GC-MS

Parameter	CAS no.	Reporting	ZDHC Limit	Result
		Limit (µg/L)	(µg/L)	M001 (μg/L)
2-(2H-benzotriazol-2-yl)- 4-(tert-butyl)-6-(sec-butyl) phenol (UV-350)	36437-37-3	100	Textile and Leather: 100	n.d.
2-(2H-benzotriazol-2-yl)- 4,6-ditertpentylphenol (UV-328)	25973-55-1	100	Textile and Leather: 100	n.d.
2-benzotriazol-2-yl-4,6-di- tertbutylphenol (UV-320)	3846-71-7	100	Textile and Leather: 100	n.d.
2,4-Di-tert-butyl-6-(5- chlorobenzotriazole-2-yl) phenol (UV-327)	3864-99-1	100	Textile and Leather: 100	n.d.
Conclusion				Comply

Abbreviation: $\mu g/L = microgram per liter$

RL = Reporting Limit

n.d. = not detected (< Reporting Limit)

Table 1T: Volatile Organic Compounds (VOC)

Test method: USEPA 8260D, BS EN 12673 (Purge and Trap, GC-MS)

Parameter	CAS no.	Reporting Limit (µg/L)	ZDHC Limit (µg/L)	Result M001 (µg/L)
Benzene	71-43-2	1	Textile and Leather: 1	n.d.
m-cresol	108-39-4	1	Textile and Leather: 1	n.d.
o-cresol	95-48-7	1	Textile and Leather: 1	n.d.
p-cresol	106-44-5	1	Textile and Leather: 1	n.d.
Xylene	1330-20-7	1	Textile and Leather: 1	n.d.
Toluene	108-88-3	1	Textile and Leather: 1	n.d.
Conclusion				Comply

Abbreviation: µg/L = microgram per liter

RL = Reporting Limit





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ZDHC HEAVY METALS WASTEWATER PARAMETERS

Table 2: Heavy Metals

Test method: Metals: USEPA 6020A, ISO 18412: 2005

Parameter	CAS no.	Reporting Limit (mg/L)	Result M002 (mg/L)
Antimony (Sb)	-	0.01	n.d.
Chromium (Cr, total)	-	0.05	n.d.
Cobalt (Co)	-	0.01	n.d.
Copper (Cu)	-	0.25	n.d.
Nickel (Ni)	-	0.05	n.d.
Silver (Ag)	-	0.005	n.d.
Zinc (Zn)	-	0.5	n.d.
Arsenic (As)	-	0.005	n.d.
Cadmium (Cd)	-	0.01	n.d.
Lead (Pb)	-	0.01	n.d.
Mercury (Hg)	-	0.001	n.d.
Chromium (Cr VI)	-	0.001	n.d.
Barium (Ba)	-	0.1	n.d.
Selenium (Se)	-	0.05	n.d.
Tin (Sn)	-	0.4	n.d.
Conclusion			(Fullfill Aspirational limit)

Abbreviation: mg/L= milligram per liter

RL = Reporting Limit

	ZDHC wastewater Limit (mg/L)		
Elements	Foundational	Progressive	Aspirational
Antimony (Sb)	0.1 mg/L	0.05 mg/L	0.01mg/L
Chromium (Cr, total)	0.2 mg/L	0.1 mg/L	0.05 mg/L
Cobalt (Co)	0.05 mg/L	0.02 mg/L	0.01 mg/L
Copper (Cu)	1 mg/L	0.5 mg/L	0.25 mg/L
Nickel (Ni)	0.2 mg/L	0.1 mg/L	0.05 mg/L
Silver (Ag)	0.1 mg/L	0.05 mg/L	0.005 mg/L
Zinc (Zn)	5 mg/L	1 mg/L	0.5 mg/L
Arsenic (As)	0.05 mg/L	0.01 mg/L	0.005 mg/L
Cadmium (Cd)	0.1 mg/L	0.05 mg/L	0.01 mg/L
Lead (Pb)	0.1 mg/L	0.05 mg/L	0.01 mg/L
Mercury (Hg)	0.01 mg/L	0.005 mg/L	0.001 mg/L
Chromium (Cr VI)	0.05 mg/L	0.005 mg/L	0.001 mg/L
Barium (Ba)			
Selenium (Se)	Textile: Sample and report only		
Tin (Sn)			





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ZDHC CONVENTIONAL PARAMETERS AND ANIONS

Table 3: pH value

Test Method: APHA 4500-H: 2021

Parameter	Reporting limit	Result
Farameter		M002
pH value	NA	7.33 (Fullfill Aspirational limit)

Abbreviation: NA = Not Applicable

Remarks:

Danamatan	ZDHC Limit		
Parameter	Foundational	Progressive	Aspirational
pH value	Textile and Leather: 6-9		

Table 3: Temperature difference

Test method: APHA 2550: 2017

Parameter	Reporting Limit (°C)	Result M002 (°C)
Temperature - Discharge pipe	NA	30.2
Temperature - Receiving water	NA	NA
Temperature difference	NA	NA

Remark: Temperature parameter is "NA", due to final discharge point is not accessible.

Abbreviation: °C = Degrees Celsius

NA = Not Applicable

Dougneston	ZDHC Limit (°C)		
Parameter	Foundational	Progressive	Aspirational
Temperature	Δ +15	Δ +10	Δ +5



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Table 3: E. Coli

Test Method: APHA 9221-F: 2017

Parameter	Reporting Limit	Result
Parameter	(MPN/ 100ml)	M002 (MPN/ 100ml)
E. Coli	NA	900 (Exceed Foundational limit)

Abbreviation: NA = Not Applicable

Dougranton	ZDHC Limit (CFU/ 100ml)		
Parameter	Foundational	Progressive	Aspirational
E. Coli	Textile and Leather: 126 MPN/100-ml		100-ml





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Table 3: Colour

Test Method: ISO 7887-B: 2011

Parameter	Reporting Limit	Result
Farameter		M002
Colour [m ⁻¹] (436nm; 525nm; 620nm)	NA [m ⁻¹]	2.86;1.52;1.42 (Fullfill Progressive limit)

Abbreviation: nm = nanometer

Pt-Co = Platinum-Cobalt unit

Remarks:

Doromotor	ZDHC Limit		
Parameter	Foundational	Progressive	Aspirational
Colour	7;5;3	5;3;2	2;1;1

Table 3: Persistent Foam

Test Method: Visual estimation

Parameter	Reporting Limit	Result
Farameter		M002
Persistent Foam, cm	NA	Absent (Fullfill Aspirational limit)

Abbreviation: NA = Not Applicable

Downwater	ZDHC Limit		
Parameter	Foundational	Progressive	Aspirational
Persistent Foam	45 cm		





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Table 3: Wastewater Flowrate

Test Method: Value measured from flow meter

Parameter	Reporting Limit	Result
Faiailletei	(m3)	M002
Wastewater Flowrate	15 m³ per day	2980 m³ per day

Abbreviation: NA = Not Applicable

Remarks:

Downwater	ZDHC Limit (m3) Foundational Progressive Aspirational	
Parameter		
Wastewater Flowrate	Textile and Leather: Sample and report only	

Table 3: Ammonium-Nitrogen

Test Method: APHA 4500-NH3: 2021

Parameter	Reporting Limit	Result
Parameter	(mg/L)	M002
Ammonium-Nitrogen	0.5	7.6 (Fullfill Foundational limit)

Abbreviation: mg/L = milligram per liter

n.d. = not detected (< Reporting Limit)

Dovernator	ZDHC Limit (mg/L)		
Parameter	Foundational	Progressive	Aspirational
Ammonium-Nitrogen	Textile: 10 Leather: 15	Textile: 1 Leather: 10	Textile: 0.5 Leather: 1



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Table 3: AOX

Test Method: ISO 9562:2004

Dovometer	Reporting Limit	Result
Parameter	(mg/L)	M002
Adsorbable Organic Halogen	0.1	0.73 (Fullfill Progressive limit)

Abbreviation: mg/L = milligram per liter

n.d. = not detected (< Reporting Limit)

Doromotor	ZDHC Limit (mg/L)		
Parameter	Foundational	Progressive	Aspirational
Adsorbable Organic Halogen	Textile only: 3	Textile only: 1	Textile only: 0.5





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Table 3: Biochemical Oxygen Demand 5-days concentration (BOD₅)

Test Method: APHA 5210B (5-Days): 2019

Parameter	Reporting Limit	Result
Parameter	(mg/L)	M002
BOD₅	5	12 (Fullfill Progressive limit)

Abbreviation: mg/L = milligram per liter

n.d. = not detected (< Reporting Limit)

Remarks:

Doromotor	ZDHC Limit (mg/L)		(mg/L)
Parameter	Foundational	Progressive	Aspirational
BOD₅	Textile: 30 Leather: 50	Textile: 15 Leather: 30	Textile: 8 Leather: 20

Table 3: Chemical Oxygen Demand (COD)

Test Method: APHA 5220: 2017

Parameter	Reporting Limit	Result
Farameter	(mg/L)	M002
COD	15	92 (Fullfill Foundational limit)

Abbreviation: mg/L = milligram per liter

n.d. = not detected (< Reporting Limit)

Doromotor	ZDHC Limit (mg/L)		
Parameter	Foundational	Progressive	Aspirational
COD	Textile: 150 Leather: 250	Textile: 80 Leather: 150	Textile: 40 Leather: 100





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Table 3: Dissolved Oxygen (DO)

Test Method: Value measured by DO meter

Parameter	Reporting Limit	Result
Farameter	(mg/L)	M002
DO	NA	4.29

Abbreviation: mg/L = milligram per liter

n.d. = not detected (< Reporting Limit)

NA = Not Applicable

Remarks:

Downwoodow	ZDHC Limit (mg/L)		
Parameter	Foundational	Progressive	Aspirational
DO	Textile and Leather: Sample and report only		

Table 3: Oil & Grease

Test Method: APHA 5520: 2021

Parameter	Reporting Limit	Result
Faranietei	(mg/L)	M002
Oil & Grease	0.5	n.d. (Fullfill Aspirational limit)

Abbreviation: mg/L = milligram per liter

n.d. = not detected (< Reporting Limit)

Downwoodow	ZDHC Limit (mg/L)		
Parameter	Foundational	Progressive	Aspirational
Oil & Grease	Textile: 10 Leather: 20	Textile: 2 Leather: 10	Textile: 0.5 Leather: 5





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Table 3: Total Phenols / Phenol Index

Test Method: APHA 5530-B:2021

Parameter	Reporting Limit	Result
Faranietei	(mg/L)	M002
Total Phenols	0.001	n.d. (Fullfill Aspirational limit)

Abbreviation: mg/L = milligram per liter

n.d. = not detected (< Reporting Limit)

Remarks:

Downwoodow	ZDHC Limit (mg/L)		(mg/L)
Parameter	Foundational	Progressive	Aspirational
Total Phenols	Textile and Leather: 0.5	Textile: 0.01 Leather: 0.3	Textile: 0.001 Leather: 0.1

Table 3: Total Chlorine

Test Method: Value measured from chlorine meter

Parameter	Reporting Limit	Result
Farameter	(mg/L)	M002
Chlorine	NA	0.8

Abbreviation: mg/L = milligram per liter

n.d. = not detected (< Reporting Limit)

NA = Not Applicable

Downwater	ZDHC Limit (mg/L)		
Parameter	Foundational	Progressive	Aspirational
Chlorine	Textile and Leather: Sample and report only		





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Table 3: Total Dissolved Solids (TDS)

Test Method: IS 3025 (Part 16): 1999

Parameter	Reporting Limit	Result
Farameter	(mg/L)	M002
TDS	NA	1440

Abbreviation: mg/L = milligram per liter

n.d. = not detected (< Reporting Limit)

NA = Not Applicable

Remarks:

Downwoodow		ZDHC Limit (mg/L)	
Parameter	Foundational	Progressive	Aspirational
TDS	Textile and Leather: Sample and report only		

Table 3: Total Nitrogen

Test Method: APHA 4500-N: 2021

Parameter	Reporting Limit	Result
Faranietei	(mg/L)	M002
Total Nitrogen	5	12 (Fullfill Foundational limit)

Abbreviation: mg/L = milligram per liter

n.d. = not detected (< Reporting Limit)

Doromotor	ZDHC Limit (mg/L)		
Parameter	Foundational	Progressive	Aspirational
Total Nitrogen	Textile: 20 Leather: 35	Textile: 10 Leather: 20	Textile: 5 Leather: 10





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Table 3: Total Phosphorus

Test Method: APHA 4500-P: 2021

Parameter	Reporting Limit	Result
Parameter	(mg/L)	M002
Total Phosphorus	0.1	2.8 (Fullfill Foundational limit)

Abbreviation: mg/L = milligram per liter

n.d. = not detected (< Reporting Limit)

Remarks:

Downwoodow	ZDHC Limit (mg/L)		
Parameter	Foundational	Progressive	Aspirational
Total Phosphorus	Textile and Leather: 3	Textile: 0.5 Leather: 1	Textile: 0.1 Leather: 0.5

Table 3: Total Suspended Solids (TSS)

Test Method: APHA 2540-D: 2020

Parameter	Reporting Limit	Result
Faranteter	(mg/L)	M002
TSS	5	19 (Fullfill Foundational limit)

Abbreviation: mg/L = milligram per liter

n.d. = not detected (< Reporting Limit)

Downwater	ZDHC Limit (mg/L)		
Parameter	Foundational	Progressive	Aspirational
TSS	Textile: 50 Leather: 70	Textile: 15 Leather: 50	Textile: 5 Leather: 20





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Table 3: Chloride

Test Method: IS 3025 (Part 32): 2010

Parameter	Reporting Limit	Result
Farameter	(mg/L)	M002
Chloride	NA	465

Abbreviation: mg/L = milligram per liter

n.d. = not detected (< Reporting Limit) NA = Not Applicable

Remarks:

Devenuetos	ZDHC Limit (mg/L)		
Parameter	Foundational	Progressive	Aspirational
Chloride	Textile and Leather: Sample and report only		eport only

Table 3: Cyanide, total

Test Method: APHA 4500-CN: 2017

Parameter	Reporting Limit	Result
Faranietei	(mg/L)	M002
Cyanide, total	0.01	n.d. (Fullfill Aspirational limit)

Abbreviation: mg/L = milligram per liter

n.d. = not detected (< Reporting Limit)

Parameter	ZDHC Limit (mg/L)		
Parameter	Foundational	Progressive	Aspirational
Cyanide, total	Textile only: 0.2	Textile only: 0.1	Textile only: 0.05





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Table 3: Dissolved anion - Sulfate

Test Method: IS 3025 (Part 24): 1998

Parameter	Reporting Limit	Result
Farameter	(mg/L)	M002
Dissolved anion - Sulfate	3	52

Abbreviation: mg/L = milligram per liter

n.d. = not detected (< Reporting Limit)

Remarks:

Downwoodow	ZDHC Limit (mg/L)		
Parameter	Foundational	Progressive	Aspirational
Dissolved anion - Sulfate	Textile and Leather: Sample and report only		eport only

Table 3: Dissolved anion - Sulfide (S2-)

Test Method: GB/T 16489: 1996

Parameter	Reporting Limit	Result
Parameter	(mg/L)	M002
Dissolved anion - Sulfide (S ²⁻)	0.01	n.d. (Fullfill Aspirational limit)

Abbreviation: mg/L = milligram per liter

n.d. = not detected (< Reporting Limit)

Doromotor	ZDHC Limit (mg/L)		
Parameter	Foundational	Progressive	Aspirational
Dissolved anion - Sulfide (S ² -)	Textile: 0.5 Leather: 1	Textile: 0.05 Leather: 0.5	Textile: 0.01 Leather: 0.2



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Table 3: Dissolved anion - Sulfite

Test Method: APHA 4500-SO₃²: 2017

Parameter	Reporting Limit	Result
Parameter	(mg/L)	M002
Dissolved anion - Sulfite	0.1	n.d. (Fullfill Aspirational limit)

Abbreviation: mg/L = milligram per liter

n.d. = not detected (< Reporting Limit)

Downwoodow	ZDHC Limit (mg/L)			
Parameter	Foundational Progressive Aspirational			
Dissolved anion - Sulfite	Textile only: 2	Textile only: 0.5	Textile only: 0.2	



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ZDHC SLUDGE PARAMETERS

Major Disposal Pathway of Sludge: Pathway B - Landfill with Significant Control Measures.

Table 4: Heavy Metals

Test Method: Metals: Chromium (VI) Preparation: USEPA 3060a: 1996. Analysis: USEPA 7196:1992 Other metals: Preparation: EPA 3050B: 1996. Analysis: EPA 6020B: 2014

Leachate testing: Leachate Extraction: EPA 1311

Analysis: USEPA 200.7; USEPA 200.8; USEPA 6010c; USEPA 6020a; ISO 11885; ISO 17294-2

Hg: Preparation: EPA 7471b, or EPA 3051a. Analysis: EPA 7471b

Cr VI: Preparation: USEPA 3060a. Analysis: USEPA 7196 or USEPA 7199

Parameter		Result	
Parameter	M003 (mg/kg)	M003 (mg/L)-Leachate test	
Antimony (Sb)	1.41	Not Applicable	
Total Chromium (Cr, total)	328.6	0.6	
Cobalt (Co)	n.d.	Not Applicable	
Copper (Cu)	81.3	Not Applicable	
Nickel (Ni)	24.2	Not Applicable	
Silver (Ag)	n.d.	Not Applicable	
Zinc (Zn)	146.4	Not Applicable	
Arsenic (As)	8.3	Not Applicable	
Cadmium (Cd)	n.d.	Not Applicable	
Lead (Pb)	6.26	Not Applicable	
Mercury (Hg)	n.d.	Not Applicable	
Chromium (VI)	n.d.	Not Applicable	
Barium (Ba)	43.8	Not Applicable	
Selenium (Se)	n.d.	Not Applicable	
Conclusion	Report value only		

Abbreviation: mg/L = milligram per liter

mg/kg- dw = milligram per kilogram- dry weight

NA = Not Applicable



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Remarks:

	Report	ting Limit		ZDHC Li	mit
Parameters			Limits		isposal (option B: int Control Measures.)
	Total (mg/kg - dw)	Leachate (mg/L)	(Table-4A)	Threshold Values- Table 4B (mg/kg-dw)	
Antimony (Sb)	1	0.0002	5	12	
Arsenic	1	0.0002	5	10	
Barium	10	0.05	200	700	
Cadmium	0.5	0.002	1	3	
Cobalt	10	0.01	400	1600	
Copper	5	0.005	50	200	
Lead	1	0.005	5	10	Report only if
Nickel	5	0.01	20	70	required to test
Selenium	1	0.0005	5	10	
Silver	5	0.005	50	100	
Total Chromium	5	0.02	50	100	
Zinc	10	0.05	400	1000	
Chromium (VI)	1	0.1	20	50	
Mercury	0.1	0.0005	1	1	

Notes: Leachate testing (as per table 4B of ZDHC WW guideline V2.1) is required if the total metals tested exceed the total metals threshold values (mg/kg).



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Table 4: Cyanide

Test Method: US EPA 9014: 2014

Parameter	M003 (m	Table 4A	Table 4D	
	Reporting Limit Result		(Limit) (mg/kg)	(Limit) (mg/kg)
Cyanide	0.05	n.d.	20	
Conclusion	Report only if required to test			

Abbreviation: mg/L = milligram per liter

mg/kg- dw = milligram per kilogram- dry weight

n.d. = not detected (< Reporting Limit)

Table 4: pH value

Test Method: EPA SW 9045D: 2004

Parameter	M003 (s.u)		Table 4A	Table 4C
	Reporting Limit Result		(Limit)	(Limit)
pH value	NA	8.01		
Conclusion	Sample and Report Only			





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Table 4: % Solids (Total solids)

Test method: EPA 160.3: 1971

Parameter	M003		Table 4C
	Result (%)	(Limit)	(Limit)
% Solids (Total solids)	82.0		
Conclusion	Sample and Report Only		

Abbreviation: % = g per 100 g of sludge



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Table 4: Fecal Coliform

Test Method: EPA 1681

Parameter	M003 (Table 4A	Table 4C	
	Reporting Limit Result		(Limit)	(Limit)
Fecal Coliform	1 160.90			
Conclusion	Sample and Report Only			

Abbreviation: mg/L = milligram per liter

NA = Not applicable

Table 4: Paint Filter Test

Test method: EPA 9095-B

Parameter	Result	Table 4A	Table 4C	
	M003	(Limit)	(Limit)	
Paint Filter Test	Pass			
Conclusion	Sample and Report Only			





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Table 4: Alkylphenols (APs) and Alkylphenol Ethoxylates (APEOs): Including All isomers

Test Method: Preparation: Modified dichloromethane extraction with mechanical agitation, soxhlet, or

ultrasonic Analysis: NP/OP ISO 18857-2: 2009

OPEO/NPEO n>2: ISO 18254-1: 2016 OPEO/NPEO n=1,2: ISO 18857-2: 2009

Doromotor	Result Table		Table 4C
Parameter	M003 (mg/kg)	(Limit) (mg/kg)	(Limit) (mg/kg)
NPs	3.4		
OPs	n.d.		
NPEOs	n.d.	0.4	
OPEOs	n.d.		
Conclusion	Sample and Report Only		

Abbreviation: µg/ L = microgram per liter

RL = Reporting Limit

mg/kg-dw = milligram per kilogram- dry weight

n.d. = not detected (< Reporting Limit)

Remarks:

List of APs and APEOs being tested

D	040 N	Reporting Limit
Parameter	CAS No.	Sludge (mg/kg-dw)
Nonylphenol ethoxylates	9016-45-9	
(NPEO)	26027-38-3	
	37205-87-1	
	68412-54-4	
	127087-87-0	
Nonylphenol (NP), mixed	104-40-5	
isomers	11066-49-2	
	25154-52-3	0.2
	84852-15-3	
Octylphenol ethoxylates	9002-93-1	
(OPEO)	9036-19-5	
	68987-90-6	
Octylphenol (OP), mixed	140-66-9	
isomers	1806-26-4	
	27193-28-8	





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Table 4: Polycyclic Aromatic Hydrocarbons (PAHs)

Test Method: USEPA 3650:1996. Analysis: USEPA 827: 1998

D	Result	Table 4A	Table 4C
Parameter	M003 (mg/kg)	(Limit) (mg/kg)	(Limit) (mg/kg)
Acenaphthene	n.d.		
Acenaphthylene	n.d.		
Anthracene	n.d.		
Benzo[a]anthracene	n.d.		
Benzo[a]pyrene (BaP)	n.d.		
Benzo[b]fluoranthene	n.d.		
Benzo[e]pyrene	n.d.		
Benzo[ghi]perylene	n.d.		
Benzo[j]fluoranthene	n.d.		
Benzo[k]fluoranthene	n.d.	0.2	
Chrysene	n.d.	_	
Dibenz[a,h]anthracene	n.d.		
Fluoranthene	n.d.		
Fluorene	n.d.		
Indeno[1,2,3-cd]pyrene	n.d.		
Naphthalene	n.d.		
Phenanthrene	n.d.		
Pyrene	n.d.	7	
Conclusion	Samp	ole and Report Only	

Abbreviation: µg/ L = microgram per liter

mg/kg-dw = milligram per kilogram- dry weight n.d. = not detected (< Reporting Limit)





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Remarks:

List of PAH being tested

Davamatav	CACNIC	Reporting Limit
Parameter	CAS No.	Sludge (mg/kg)
Acenaphthene	83-32-9	
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	0.0
Benzo[k]fluoranthene	207-08-9	0.2
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	

Table 4: Chlorotoluenes

Test Method: USEPA 8260 D, 8270E, determination by GC-MS

Parameter	CAS No.	M003 (mg/kg)		Table 4A	Table 4C
		Reporting Limit	Result	(Limit) (mg/kg)	(Limit) (mg/kg)
mono-, di-, tri-, tetra- and penta- chlorotoluene	Multiple	0.1	n.d.	0.2	
Conclusion	Sample and Report Only				

Abbreviation: mg/kg-dw = milligram per kilogram- Dry weight n.d. = not detected (< Reporting Limit)



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Sampling Point Indication





Discharged Wastewater

Raw Wastewater



Sludge

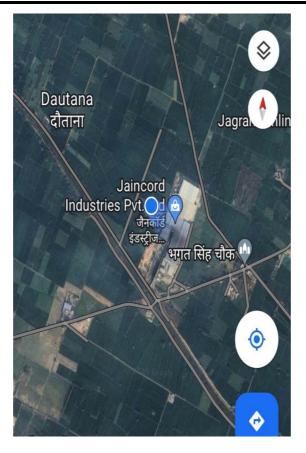


Factory Gate



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Sampling Point (Map)

- END -

General Terms and Conditions - TÜV Rheinland (India) Pvt Ltd. Laboratory Services

"The Terms & Conditions contained in this Quotation shall supersede all other Terrina a Continuous containeu in instructionary anii superseue ai durei Contractual obligations entered into between the Parties and shall be deemed as final and binding on the Parties. Both TUV and the Customer/Client shall sign out on the Quotation as a confirmation of their Business Understanding and its acceptability to one another.

General Service Procedures
This quotation is only for testing as per the standards mentioned herein. If any
additional standards or requirements are applicable, a revision to this proposal will
be provided for acceptance.

For any reason, if the turnaround time as indicated above is not met by customer either due to product failures, testing failures, modification delays etc., TÜV Rheinland (India) Pvt Ltd will charge additionally and will invoice for the same.

This quotation does not include testing of safety critical components in case they are not already certified. The above-mentioned quotation includes the test laboratory charges for one cycle of testing.

This quotation does not include re-testing the product in case of failures. The annual charges are subject to periodic revisions. Wherever needed, the client shall provide necessary auxiliary equipment and accessories. Testing will be carried out at TUV Rheinland (India) PYL Ltd (aboratory or any other TUV Rheinland (India) PYL Ltd recognized laboratories.

ting may involve some destructive tests. Hence TÜV Rheinland (India) Pvl Ltd will not be liable for any damages caused to the product during testing. During testing, it may be necessary to open, dis-assemble, remove components and also conduct chemical analysis from the sample and this must be acceptable to the customer.

This quotation considers one manufacturing location within India

All transportation and logistics related to test samples are to be taken care by the

When Laboratories are booked for Developmental Activities, Maximum of 01 sample is allowed in 04 hours duration slot and a Maximum of 03 identical samples are allowed in 08 hours duration slot.

All chamber related services (EMC & Environmental), if cancelled with less than clear 2 working days of notice then 50% of cancellation charges are applicable. Any cancellation with less than one clear working day notice attracts 100% charges.

Decision Rule: The laboratory employs simple acceptance rule in making pass or fail decisions on test results with no guard band.

After completion of testing *l* certification the samples must be collected from the labs within 1 month after defined retention period, failing which TÜV Rheinland (India) PV Ltd will not own any responsibility of safeguarding the samples and will be destroyed according to the lab's discretion.

The client shall ensure TÜV Rheinland employee is provided with a safe work environment for executing the work assignments at client's premises and also provide necessary HSE inductions on workplace hazards, additional activity specific personnel protective equipment as applicable.

The customers visiting TÜV Rheinland premises must ensure comply with TÜV Rheinland's HSE policies & procedures especially related to #Personal Protective Equipment (PPE).

Please contact TÜV Rheinland Representative / Business HSE Coo understand the specific HSE Requirements.

General Terms and Conditions:

1. Scope

1.1 The following terms and conditions apply to agreed services including information, deliveries and similar services as well as ancillary services and other secondary obligations provided within the scope of contract performance.

2. If there is any conflict between these terms and conditions and the clients General Terms and Conditions of Business, including the clients Terms and Conditions of Purchasing, if any, these terms and conditions shall apply.

No contractual terms and conditions of the client shall form part of the contract unless specifically referred to or incorporated in the documents forming the contract with the client.

2. Quotations Unless otherwise agreed, all quotations submitted by TÛV Rheinland (India) Pvt Ltd shall be subject to change without notice.

3. Coming into effect and duration of contracts
3.1 The contract shall come into effect for the agreed term upon the quotation letter
of TOV Rheinland (india) Pvt Ltd or a separate contractual document being signed
by both contracting parties, or upon the works requested by the client being carried
out by TOV Rheinland (india) Pvt Ltd. If the client instructs TOV Rheinland (india)
Pvt Ltd without receiving a prior quotation from TOV Rheinland (india) Pvt Ltd acceptance (including hort Ltd is # in its sole discretion # entitled to
accept the order by giving written notice of such acceptance (including notice sent
3.2 The contract term starts upon the coming into effect of the contract in
contract.

4. Scope of services
4.1 The scope of the services shall be decided solely by a unanimous declaration issued by both parties. If no such declaration exists, then the written confirmation of order by TIDV Rheinland (India) Prt. Ltd shall be decisive.
4.2 The agreed services shall be performed in compliance with the regulations in force at the time the contract is entered into.
4.3 Furthermore, TIDV Rheinland (India) Prt. Ltd is entitled to determine (in its sole discretion) the method and nature of the assessment unless otherwise agreed in writing or if mandatory provisions require a specific procedure to be followed.
4.4 On execution of the work there shall be no simultaneous assumption of any guarantee of the correctness (proper quality) and working order of either tested or examined parts nor of the installation as a whole and its upstream and/or downstream processes, organizations, use and application in accordance with regulations, nor of the systems on which the installation is based; in particular, no responsibility shall be assumed for the construction, selection of materials and assembly of installations examined, nor for their use and application in accordance with regulations unless these questions are expressly covered by the contract.
4.5 In the case of inspection work, TIDV Rheinland (India) Pvt Ltd shall not be responsible for the accuracy or checking of the safety programmes or safety regulations on which the inspections are based, unless otherwise expressly agreed in writing.

5. Performance periods/dates
5.1 The contractually agreed periods and dates of performance are based on estimates of the work involved which are prepared in line with the details provided by the client. They shall only be binding if continued as binding by TVI Principal (India) PVI Ltd in writing.
5.2 if binding periods of performance have been agreed, these periods shall not commence until the client has submitted all required documents to TVI V Principal Commence of the second periods of performance have been agreed, these periods with the commence of the second periods of the second

third parties will be provided in good time and at no cost to TÜV Rheinland (India) Pvt Ltd.

2 Design documents, supplies, auxiliary staff, etc. necessary for performance of the services shall be made available free of charge by the client. Moreover, collaborative solution of the client must be undertaken in accordance with legal provisions, standards, safety regulations and accident prevention instructions. 33 The client shall bear any additional cost incurred on account of work having to be redone or being delayed as a result of late, incorrect or incomplete information clack of proper cooperation. Even where a tixed or maximum price is agreed, TÜN Rheinland (India) Pvt Ltd shall be entitled to charge extra for such additional excense.

7. Invoicing of work
7. If the scope of performance is not laid down in writing when the order is placed, invoicing shall be based on costs incurred. If no payment is agreed in writing, invoicing shall be in accordance with the TÜV Rheinland (India) Pvt Ltd. Price list valid at the time of performance.
7.2 Unless otherwise agreed, work shall be invoiced according to the progress of the second.

r.z. unless orienwise agreed, work shall be invoiced according to the progress of the work.

7.3 If the execution of an order extends over more than one month and the value of the contract or the

7.3 If the execution of an order extends over more tran one month and the value of the contract or the agreed fixed price exceeds €2,500.00) converted into Indian Rupees at the prevailing exchange rates TÜV Rheinland (India) Pvt Ltd may demand payments on account or in instalments.

8.1 All invoice amounts shall be due for payment on receipt of the invoice, subject only to statutory deductions as per applicable tax laws. No discounts shall be

granted.

8.2 For down payment please refer Payment terms in the last page.

8.3 Payments shall be made to the bank account of TÜV Rheinland (India) Pvt Ltd through demand draft payable at Bangalore favoring TÜV Rheinland (India) Pvt. Ltd. "You may use our bank connections mentioned below.

Bank Connection: DEUTSCHE BANK No. 26-27, Raheja Towers, M.G. Road, Ban

No. 26-27, Raheja Towers, M.G. Road, Bangalore Account No. 2046324-00-0, SWIFT Code: DEUTINBBBCL IFSC Code: DEUT0797BGL HSBC BANK The Hongkong and Shanghal Banking Corporation Ltd No.7, Mahatma Gandhi Road, Bangalore - 560 001. Account No. 072-669229-001, IFSC: HSBC0560002 Swift: HSBCINBB

Note: In the event of RTGS/NEFT payment made to our Account please send the intimation to accounting@ind.TÜV.com, else the amount may not be credited to your account.

8.4 in cases of default of payment, TÜV Rheinland (India) Pvt Ltd shall be entitled to claim default interest at a rate of 18% p.a. At the same time, TÜV Rheinland (India) Pvt Ltd Geserves the right to claim further dramages.

8.5 Should the client default in payment of the invoice despite being granted a reasonatelle grantee pented, TÜV Rheinland (India) Pvt Ltd shall be entitled to cancel reasonatele grantee pented, TÜV Rheinland (India) Pvt Ltd shall be entitled to cancel to continue performance of the contract. TÜV Rheinland (India) Pvt Ltd slab reserves the right to publish the names of defaulting clients in public domain as may be fit and also meet any other requirements as prescribed by accreditation agencies/bodiet.

agenciarbodies.

8.6 The provisions set forth in article. (8.4) shall also apply in cases involving returned cheques, cessation of payment, and commencement of insolvency proceedings against the client assets or cases in which the commencement of insolvency proceedings has been dismissed due to lack of assets.

8.7 Objections to the invoices of 1017 Rheinland (float) PVL til shall be submitted in writing within two weeks of receipt of the invoice.

8.8 TOV Rheinland (float) PVL til shall be entitled to demand appropriate advance 8.8 TOV Rheinland (float) PVL til shall be entitled to demand appropriate advance

8.8 TUV Rheinland (india) PYL Ltd shall be entitled to raise its fees at the beginning payments.
8.9 TUV Rheinland (india) PYL Ltd shall be entitled to raise its fees at the beginning of a month if overheads and/or purchase costs have increased. In this case, TUV Rheinland (india) PYL Ltd shall notify the client in writing of the rise in fees. This notification shall be issued on enough prior to the date on which the rise in fees and contribution of the rise in fees and the rise of the result of the rise in fees exceeds 5% per contribution and the rise in fees exceeds 5% per contribution and the rise in fees exceeds 5% per contribution and the rise in fees exceeds 5% per contribution and the rise in fees exceeds 5% per contribution and the rise in fees exceeds 5% per contribution and the client shall be entitled to terminate the contractual relationship by the end of the period of notice of changes in fees. If the contract is not terminated, the changed fees shall be deemed to have been agreed upon expiry of the above period.
8.10 Only legally established and undisputed claims may be offset against claims by TÜV Rheinland (India) Pvt Ltd.

9. Acceptance
9.1 Any part of the work ordered which is complete in itself may be presented by TÜV Rheinland (India) Pvt Ltd. for acceptance as an instalment. The client shall be obliged to accept it immediately.
9.2 if the client fails to fulfil its acceptance obligation immediately, acceptance shall be deemed to have taken place 4 calendar weeks after performance of the work if TÜV Rheinland (India) Pvt Ltd has specifically made the client aware of the aforementioned deadline upon performance of the evorice.

10. Confidentially
10.1 For the purpose of this agreement, #confidential information# means all information, documents, images, drawings, know-how, data, samples and project documentation which one party (the disclosing party) hands over, transfers or otherwise discloses to the other party (the receiving party) confidential information also includes paper copies and electronic copies of such information. Brown party shall make all information disclosed in written 10.2 The disclosing party shall mark all confidential information disclosed or all the same applies to confidential information transmitted by email. If confidential information is disclosed or all tyle the receiving party shall be appropriately informed in advance.
10.3 All confidential information which the disclosing party transmits or otherwise discloses to the receiving party in accordance with this agreement.
a) May only be used by the receiving party for the purposes of performing the purpose of the contract, unless expressly otherwise agreed in writing with the disclosing party.

b) May not be cooledt. distributed, published or otherwise disclosed by the

b) May not be copied, distributed, published or otherwise disclosed by the receiving party, unless this is necessary for fulfilling the purpose of the contractor TDV Rheinland (fidial) Pxt Ldr. is required to pass on confidential information, inspection reports or documentation to the authorities or third parties that are involved in the performance of the contract.
c) Must be treated by the receiving party with the same level of confidentialify as the receiving party uses to protect its own confidential information, but never with a lesser level of confidentiality than that which is objectively required.

10.4 The receiving party shall disclose any confidential information received from the disclosing party only to those of its employees who need this information to perform the services required for the subject matter of this contract. The receiving party undertakes to oblige these employees to observe the same level of secrecy as set forth in this confidentiality clause.

10.5 Information for which the receiving party can furnish proof that:

a) It was generally known at the time of disclosure or has become general knowledge without violation of this agreement.

The receiving party already possessed this information prior to disclosure by the disclosing party.

d) The receiving party developed it itself, irrespective of disclosure by the disclosing party, shall not be deemed to constitute #confidential information# as defined in this

e) It is mandated by law or by an order of the Courts to disclose such information.

e) It is mandated by law or by an order of the Courts to disclose such information.
10.6 All confidential information shall remain the property of the disclosing party. The receiving party hereby agrees to immediately (i) return all confidential information, including all copies. to the disclosing party, and/or, or request by the disclosing party, to (ii) destroy all confidential information, including all copies, and confidential information to the disclosing party by the disclosing party but at the latest and without special request after termination or expiry of this contract. This does not extend to include reports and certificates prepared for the client solely for the purpose of fulfilling the obligations under this contract. This client However, TUV Rheinland (India) Pvt Ltd is entitled to make file copies of such reports, certificates and confidential information that forms the basis for preparing these reports and certificates in order to evidence the correctness of its results and for general documentation purposes.

10.7 From the start of this contract and for a period of three years after termination or expiry of this contract, the receiving party shall maintain strict secrecy of all confidential information and shall not disclose this information to any third parties or use it for itself.

11. Copyrights
11.1 TÜV Rheinland (India) Pvt Ltd shall retain all exclusive and joint copyrights in the expert reports, test results, calculations, presentations etc. prepared by TÜV Rheinland (India) Pvt

reports, test results, calculations, presentations etc. prepared by TÜV Rheinland (India) Pvt. Ltd.

11.2 The client may only use expert reports, test results, calculations, presentations etc. prepared within the scope of the contract for the contractually agreed purpose.

11.3 The client may use test reports, test results, expert reports, etc. only complete and unshorten. Any publication or duplication for advertising purposes needs the prior written approval of TÜV Rheinland (India) Pvt Ltd.

12. Liability of TÜV Rheinland (India) Pvt Ltd
12.1. Irrespective of the legal basis and in particular in the event of a breach of contractual
obligations and tort, the liability of TÜV Rheinland (India) Pvt Ltd for all damage, loss and
reimbursement of expenses caused by legal representatives and/or employees of TÜV
Rheinland (India) Pvt Ltd shall be limited to:
(i) in the case of contract with a fixed overall fee, an amount equal to the overall fee for the
entire contract.

(ii) in the case of contracts for annually recurring services, an amount equal to the agreed

(iii) in the case of contracts expressly charged on a time and material basis to a maximum

of Rs10,00,000/=(Rupees Ten Lacs only).

and ((w) in the case of framework agreements that provide for the possibility of placing individual orders, to an amount equal to three times the fee for the individual order under which the damage occurred. The maximum liability of TÜV Rheinland (India) Pt.L to Is limited in any event of damage or loss to the contract value/Rs. 10,00,000i- (Rupees Ten Lacs) whichever

to lower.

It is lower.

It is

13. Partial invalidity, written form, place of jurisdiction
13.1 No anciliary agreements to this contract have been concluded.
13.2 All amendments and supplements must be in writing in order to be effective; this also
13.2 All amendments and supplements must be in writing in order to be effective; this also
13.2 Evaluate or or several of the provisions under this contract be or become ineffective,
the contracting parties shall replace the invalid provision with a legally valid provision that
comes closes to the content of the invalid provision in legal and commercial terms.
13.4 The place of jurisdiction for all disputes arising in connection with this contract shall be
Bangalore. This contract is governed by Indian substantive law.
13.5 All claims, disputes, differences, etc., arising out of and of or connected with the contract
between TUV and the client shall be resolved through arbitration to be conducted under
the provisions of the Arbitration and Conciliation Act, 1996. The seat of arbitration shall be
Bangalore, India. The Arbitral Tribunal shall comprise of a 50le Arbitrator to be nominated
by the mutual consent of TUV and the client. The arbitration proceedings shall be conducted
in the English in language only.
13.6 Subject to resolution of disputes through arbitration, only the Courts in Bangalore, India,
shall be exclusive jurisdiction over all marters arising out of and / or connected with the
contract between TUV and the client.

Payment Terms: The Parties shall negotiate the Payment Terms on a case to case to The full and final Terms & Conditions of Payment as negotiated and as contain the Purchase Order (PO) shall be binding on the Parties to this contract/engager The order confirmation issued by TUV Rhenland in concurrence shall be deeme Acceptance of such Terms & Conditions.

For TÜV Eheinland (India)

Managing Director

