

Test Report No.: 0192409936 Page 1 of 29

Client: IR Apparel & Accessories

Buyer Name: ESPRIT

Factory Name: IR Apparel & Accessories

Factory Address: Plot No. 75- 76, Sector-7, Phase-II, IMT Manesar, Gurgaon, Haryana, India

Sample Type: 1) Discharge Waste Water, 2) Raw waste water, 3) Incoming Water

Discharge type of wastewater: Direct discharged waste water

Sampling Date: 03/04/2019

Testing Period: 05/04/2019 to 18/04/2019

Other Information:


Other information provided by client:
Country of Origin:India

Sample Photo

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

18th April 2019


Manokamna Mishra
Technical Executive


Vikas Pipal
Analytical Lab

Manager

Date

Name/Position

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

This test report relates to the a. m. test sample. Without permission of the test center this test 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.

Test specification:**Test result:****Conventional Parameters**

Temperature	Please refer to page 6
Total Suspended Solids (TSS)	Detected (Please refer to page 6)
Chemical Oxygen Demand (COD)	Detected (Please refer to page 7)
Total Nitrogen	Detected (Please refer to page 7)
pH value	Please refer to page 8
Colour [Pt-Co]	Please refer to page 8
Biochemical Oxygen Demand (BOD ₅) – 5 Days	Detected (Please refer to page 8)
Ammonium Nitrogen	Not Detected (Please refer to page 9)
Total Phosphorous	Not Detected (Please refer to page 9)
Adsorbable Organic Halogens (AOX)	Not Detected (Please refer to page 10)
Oil and Grease	Not Detected (Please refer to page 10)
Phenol	Not Detected (Please refer to page 11)
Coliform [bacteria/ 100ml]	Detected (Please refer to page 11)
Persistent Foam	Please refer to page 11
Dissolved Anion - Sulfide	Not Detected (Please refer to page 12)
Dissolved Anion - Sulfite	Not Detected (Please refer to page 13)
Cyanide	Not Detected (Please refer to page 14)
Heavy Metals	Not Detected (Please refer to page 14)
Antimony (Sb)	Not Detected (Please refer to page 14)
Chromium (Cr, total)	Not Detected (Please refer to page 14)
Cobalt (Co)	Not Detected (Please refer to page 14)
Copper (Cu)	Not Detected (Please refer to page 14)
Nickel (Ni)	Not Detected (Please refer to page 14)
Silver (Ag)	Not Detected (Please refer to page 14)
Zinc (Zn)	Not Detected (Please refer to page 14)
Arsenic (As)	Not Detected (Please refer to page 14)
Cadmium (Cd)	Not Detected (Please refer to page 14)
Lead (Pb)	Not Detected (Please refer to page 14)
Mercury (Hg)	Not Detected (Please refer to page 14)
Chromium (Cr VI)	Not Detected (Please refer to page 14)

ZDHC Manufacturing Restricted Substances List (MRSL)

Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs)	Not Detected (Please refer to page 15)
Chlorobenzenes and Chlorotoluenes	Not Detected (Please refer to page 16)
Chlorophenols	Not Detected (Please refer to page 17)
Dyes – Azo (Forming Restricted Amines)	Not Detected (Please refer to page 18)
Dyes – Carcinogenic or Equivalent Concern	Not Detected (Please refer to page 19)
Dyes – Disperse (Sensitizing)	Not Detected (Please refer to page 20)
Flame Retardants (included SCCP)	Not Detected (Please refer to page 21)
Glycols	Not Detected (Please refer to page 22)
Halogenated Solvents	Not Detected (Please refer to page 23)
Organotin Compounds	Not Detected (Please refer to page 24)
Perfluorinated and Polyfluorinated Chemicals (PFCs)	Not Detected (Please refer to page 24)
Phthalates	Not Detected (Please refer to page 25)
Polycyclic Aromatic Hydrocarbons (PAHs)	Not Detected (Please refer to page 26-27)
Volatile Organic Compounds (VOC)	Not Detected (Please refer to page 28)

Remark: Coliform / Cyanide test / AOX test have been subcontracted to TÜV Rheinland approve lab.

Sampling Protocol:**Sampling date and Time - 03/04/2019 12PM-5PM**

Incoming water: Total Sample Volume : 1L									
	1	2	3	4	5	6	7	8	Remark
Sampling Time	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	
			1						

Discharge Wastewater: Total Sample Volume : 10L									
	1	2	3	4	5	6	7	8	Remark
Sampling Time	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	
6 Hours		1	2	3	4	5	6		

Raw waste water: Total Sample Volume : 10L									
	1	2	3	4	5	6	7	8	Remark
Sampling Time	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	
6 Hours		1	2	3	4	5	6		

Sample storage condition: 4°C

Note:

Sampling has been done as per sampling & preservation guidance for wastewater & Sludge (MS-0038904 with ref. to ISO 5667-1,3,10,13,15)

Sampling (Photo)



Material list

Material No.	Material	Sampling
M001	Discharge Waste Water	Discharge Waste Water
M002	Raw waste water	Raw waste water
M003	Incoming Water	Incoming Water

Tests marked with * are under scope of NABL accreditation.

Test result**Temperature***

Test method: APHA 22nd edition

Parameter	Result
	M001 (°C)
Temperature	28.5

Abbreviation: °C = Degrees Celsius
NA = Not Applicable

Remarks:

The limits of range of Temperature according to ZDHC limit (Table 1 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	Reporting Limit (°C)	ZDHC Limit (°C)		
		Foundational	Progressive	Aspirational
Temperature	NA	Δ 15 or max 35	Δ 10 or 30	Δ 5 or 25

Total Suspended Solids (TSS)*

Test Method: APHA 2540D

Parameter	Result
	M001 (mg/L)
Total Suspended Solids (TSS)	10

Abbreviation: mg/L = milligram per litre
n.d. = not detected (< Reporting Limit)

Remarks:

The limits of Total Suspended Solids (TSS) according to ZDHC limit (Table 1 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	Reporting Limit (mg/L)	ZDHC Limit (mg/L)		
		Foundational	Progressive	Aspirational
Total Suspended Solids (TSS)	5	50	15	5

Chemical Oxygen Demand (COD)*

Test Method: APHA 5220B

Parameter	Result
	M001 (mg/L)
Chemical Oxygen Demand (COD)	61

Abbreviation: mg/L = milligram per litre
n.d. = not detected (< Reporting Limit)

Remarks:

The limits of Chemical Oxygen Demand (COD) according to ZDHC limit (Table 1 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	Reporting Limit (mg/L)	ZDHC Limit (mg/L)		
		Foundational	Progressive	Aspirational
Chemical Oxygen Demand (COD)	30	150	80	40

Total Nitrogen*

Test Method: APHA 4500N

Parameter	Result
	M001 (mg/L)
Total Nitrogen	5

Abbreviation: mg/L = milligram per litre
n.d. = not detected (< Reporting Limit)

Remarks:

The limits of Total Nitrogen according to ZDHC limit (Table 1 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	Reporting Limit (mg/L)	ZDHC Limit (mg/L)		
		Foundational	Progressive	Aspirational
Total Nitrogen	2	20	10	5

pH value*

Test Method: APHA 22nd edition

Parameter	Result
	M001
pH value	7.51

Abbreviation: NA = Not Applicable**Remarks:**

The limits of pH according to ZDHC limit (Table 1 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	Reporting Limit	ZDHC Limit		
		Foundational	Progressive	Aspirational
pH value	NA	6-9		

Colour*

Test Method: EN ISO 7887-B

Parameter	Result
	M001
Colour [m ³] (436nm; 525; 620nm)	1:1:1

Abbreviation: m³ = cubicmeter
nm = nanometer**Remarks:**

The limits of Colour according to ZDHC limit (Table 1 of ZDHC wastewater guidelines, issued in Nov 2016)

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

Biochemical Oxygen Demand (BOD₅) – 5 Days*

Test Method: APHA 5210B

Parameter	Result
	M001 (mg/L)
Biochemical Oxygen Demand (BOD ₅)	8

Abbreviation: mg/L = milligram per litre
n.d. = not detected (< Reporting Limit)

Remarks:

The limits of Biochemical Oxygen Demand (BOD₅) – 5 Days according to ZDHC limit (Table 1 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	Reporting Limit (mg/L)	ZDHC Limit (mg/L)		
		Foundational	Progressive	Aspirational
Biochemical Oxygen Demand (BOD ₅)	5	30	15	5

Ammonium Nitrogen*

Test Method: APHA 22nd edition

Parameter	Result
	M001 (mg/L)
Ammonium Nitrogen	N.D.

Abbreviation: mg/L = milligram per litre
n.d. = not detected (< Reporting Limit)

Remarks:

The limits of Ammonium Nitrogen according to ZDHC limit (Table 1 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	Reporting Limit (mg/L)	ZDHC Limit (mg/L)		
		Foundational	Progressive	Aspirational
Ammonium Nitrogen	0.5	10	1	0.5

Total Phosphorous*

Test Method: APHA 4500P

Parameter	Result
	M001 (mg/L)
Total Phosphorous	N.D.

Abbreviation: mg/L = milligram per litre
n.d. = not detected (< Reporting Limit)

Remarks:

The limits of Total Phosphorous according to ZDHC limit (Table 1 of ZDHC wastewater guidelines, issued in Nov 2016)

Test Report No.:0192409936

Page 10 of 29

Parameter	Reporting Limit (mg/L)	ZDHC Limit (mg/L)		
		Foundational	Progressive	Aspirational
Total Phosphorous	0.1	3	0.5	0.1

Adsorbable Organic Halogens (AOX)*

Test Method: ISO 9562

Parameter	Result
	M001 (mg/L)
Adsorbable Organic Halogens (AOX)	N.D.

Abbreviation: mg/L = milligram per litre
n.d. = not detected (< Reporting Limit)

Remarks:

The limits of Adsorbable Organic Halogens (AOX) according to ZDHC limit (Table 1 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	Reporting Limit (mg/L)	ZDHC Limit (mg/L)		
		Foundational	Progressive	Aspirational
Adsorbable Organic Halogens (AOX)	0.2	5	1	0.1

Oil and Grease*

Test Method: APHA 5220

Parameter	Result
	M001 (mg/L)
Oil and Grease	N.D.

Abbreviation: mg/L = milligram per litre
n.d. = not detected (< Reporting Limit)

Remarks:

The limits of Oil and Grease according to ZDHC limit (Table 1 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	Reporting Limit (mg/L)	ZDHC Limit (mg/L)		
		Foundational	Progressive	Aspirational
Oil and Grease	0.5	10	2	0.5

Phenol*

Test Method: APHA 5530B

Parameter	Result
	M001 (mg/L)
Phenol	N.D.

Abbreviation: mg/L = milligram per litre
n.d. = not detected (< Reporting Limit)

Remarks:

The limits of Phenol according to ZDHC limit (Table 1 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	Reporting Limit (mg/L)	ZDHC Limit (mg/L)		
		Foundational	Progressive	Aspirational
Phenol	0.001	0.5	0.01	0.001

Coliform*

Test Method: APHA 9221B

Parameter	Result
	M001 (bacteria/ 100ml)
Coliform	12

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

Remarks:

The limits of Coliform [bacteria/ 100ml] according to ZDHC limit (Table 1 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	Reporting Limit (bacteria/ 100ml)	ZDHC Limit (bacteria/ 100ml)		
		Foundational	Progressive	Aspirational
Coliform	10	400	100	25

Persistent Foam*

Test Method: Inhouse

Parameter	Result
	M001
Persistent Foam	Not Visible

Abbreviation: NA = Not Applicable

Test Report No.:0192409936

Page 12 of 29

Remarks:

The limits of Persistent Foam according to ZDHC limit (Table 1 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	Reporting Limit	ZDHC Limit		
		Foundational	Progressive	Aspirational
Persistent Foam	NA	Not Visible		

Anion – Sulfide*

Test Method: GB/T 16489

Parameter	Result
	M001 (mg/L)
Anion – Sulfide	N.D.

Abbreviation: mg/L = milligram per litre
n.d. = not detected (< Reporting Limit)

Remarks:

The limits of Dissolved Anion – Sulfide according to ZDHC limit (Table 1 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	Reporting Limit (mg/L)	ZDHC Limit (mg/L)		
		Foundational	Progressive	Aspirational
Anion – Sulfide	0.01	0.5	0.05	0.01

Anion – Sulfite*

Test Method: US EPA 377.1

Parameter	Result
	M001 (mg/L)
Anion – Sulfite	N.D.

Abbreviation: mg/L = milligram per litre
n.d. = not detected (< Reporting Limit)

Remarks:

The limits of Dissolved Anion – Sulfite according to ZDHC limit (Table 1 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	Reporting Limit (mg/L)	ZDHC Limit (mg/L)		
		Foundational	Progressive	Aspirational
Anion – Sulfite	0.2	2	0.5	0.2

Cyanide*

Test Method: APHA 4500-CN

Parameter	Result
	M001 (mg/L)
Cyanide	N.D.

Abbreviation: mg/L = milligram per litre
mg/kg = milligram per kilogram
n.d. = not detected (< Reporting Limit)

Remarks:

The limits of Cyanide according to ZDHC limit (Table 1 and Table 3 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	Reporting Limit		ZDHC Limit (mg/L)			ZDHC Limit (mg/kg)
	Wastewater (mg/L)	Sludge (mg/kg)	Foundational	Progressive	Aspirational	Sludge
Cyanide	0.05	0.1	0.2	0.1	0.05	TBC

Heavy Metals*

Test Method:
EPA 6020A Acid Digestion ICP-MS; For chromium VI - ISO 18412:2005,
Extraction Buffer solution. Derivatization and UV

Parameter	Result	Result
	M001 (mg/L)	M002 (mg/L)
Antimony (Sb)	N.D.	N.D.
Chromium (Cr, total)	N.D.	N.D.
Cobalt (Co)	N.D.	N.D.
Copper (Cu)	N.D.	N.D.
Nickel (Ni)	N.D.	N.D.
Silver (Ag)	N.D.	N.D.
Zinc (Zn)	N.D.	N.D.
Arsenic (As)	N.D.	N.D.
Cadmium (Cd)	N.D.	N.D.
Lead (Pb)	N.D.	N.D.
Mercury (Hg)	N.D.	N.D.
Chromium (Cr VI)	N.D.	N.D.

Abbreviation: mg/L = milligram per litre
mg/kg = milligram per kilogram
NA = Not Applicable
n.d. = not detected (< Reporting Limit)

Remarks:

The limits of Heavy Metals according to ZDHC limit (Table 1 and Table 3 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameters	Reporting Limit		ZDHC Limit (mg/L)			ZDHC Limit (mg/kg)
	Wastewater (mg/L)	Sludge (mg/kg)	Foundational	Progressive	Aspirational	Sludge
Antimony (Sb)	0.01	NA	0.1	0.05	0.01	NA
Chromium (Cr, total)	0.05	NA	0.2	0.1	0.05	NA
Cobalt (Co)	0.01	NA	0.05	0.02	0.01	NA
Copper (Cu)	0.25	NA	1	0.5	0.25	NA
Nickel (Ni)	0.05	NA	0.2	0.1	0.05	NA
Silver (Ag)	0.005	NA	0.1	0.05	0.005	NA
Zinc (Zn)	0.5	NA	5.0	1.0	0.5	NA
Arsenic (As)	0.005	1	0.05	0.01	0.005	TBC
Cadmium (Cd)	0.01	1	0.1	0.05	0.01	TBC
Lead (Pb)	0.01	1	0.1	0.05	0.01	TBC
Mercury (Hg)	0.001	0.1	0.01	0.005	0.001	TBC
Chromium (Cr VI)	0.001	1	0.05	0.005	0.001	TBC

Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): Including All isomers*

Test Method: NP/OP:ISO 18857-2 (modified Dichloromethane extraction) ; OPEO/NPEO (n>2) : ISO 18254-1; OPEO/NPEO (n=1,2) : ISO 18857-2

Parameter	Result	Result
	M001 (µg/L)	M002 (µg/L)
NP	N.D.	N.D.
OP	N.D.	N.D.
NPEO	N.D.	N.D.
OPEO	N.D.	N.D.

Abbreviation: µg/ L = microgram per litre
mg/kg = milligram per kilogram
RL = Reporting Limit
n.d. = not detected (< Reporting Limit)

Remarks:

List of AP and APEOs being tested (Table 2A and Table 3 of ZDHC wastewater guidelines, issued in Nov 2016)

Test Report No.:0192409936

Page 16 of 29

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

Chlorobenzenes and Chlorotoluenes*

Test Method:

US EPA 8270D Dichloromethane extraction followed by GC-MS

Parameter	Result	Result
	M001 (µg/L)	M002 (µg/L)
Chloro-Benzenes	N.D.	N.D.
Chloro-Toluenes	N.D.	N.D.

Abbreviation: µg/ L = microgram per litre
mg/kg = milligram per kilogram
n.d. = not detected (< Reporting Limit)

Remarks:

List of Chlorobenzenes and Chlorotoluenes being tested (Table 2B and Table 3 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	CAS No.	Reporting Limit		ZDHC Limit	
		Wastewater (µg/L)	Sludge (mg/kg)	Wastewater (µg/L)	Sludge (mg/kg)
Monochlorobenzene	108-90-7	0.2	0.1	0.2	TBC
1,2-Dichlorobenzene	95-50-1				
1,3-Dichlorobenzene	541-73-1				
1,4-Dichlorobenzene	106-46-7				
1,2,3-Trichlorobenzene	87-61-6				
1,2,4-Trichlorobenzene	120-82-1				
1,3,5-Trichlorobenzene	108-70-3				
1,2,3,4-Tetrachlorobenzene	634-66-2				
1,2,3,5-Tetrachlorobenzene	634-90-2				
1,2,4,5-Tetrachlorobenzene	95-94-3				

Test Report No.:0192409936

Page 17 of 29

Parameter	CAS No.	Reporting Limit		ZDHC Limit	
		Wastewater (µg/L)	Sludge (mg/kg)	Wastewater (µg/L)	Sludge (mg/kg)
Tetrachlorobenzene					
Pentachlorobenzene	608-93-5				
Hexachlorobenzene	118-74-1				
2-Chlorotoluene	95-49-8				
3-Chlorotoluene	108-41-8				
4-Chlorotoluene	106-43-4				
2,3-dichlorotoluene	32768-54-0				
2,4-dichlorotoluene	95-73-8				
2,5-dichlorotoluene	19398-61-9				
2,6-dichlorotoluene	118-69-4				
3,4-dichlorotoluene	95-75-0				
3,5-dichlorotoluene	25186-47-4				
2,3,4-Trichlorotoluene	7359-72-0				
2,3,6-Trichlorotoluene	2077-46-5				
2,3,5-Trichlorotoluene	6639-30-1				
2,4,6-Trichlorotoluene	23749-65-7				
3,4,5-Trichlorotoluene	21472-86-6				
2,3,4,5-Tetrachlorotoluene	76057-12-0				
2,3,5,6-Tetrachlorotoluene	29733-70-8				
2,3,4,6-Tetrachlorotoluene	875-40-1				
Pentachlorotoluene	877-11-2				

Chlorophenols*

Test Method:

US EPA 8270D, Solvent extraction derivatization with KOH, acetic anhydride followed by GC-MS

Parameter	Result	Result
	M001 (µg/L)	M002 (µg/L)
Chlorophenols	N.D.	N.D.

Abbreviation: µg/L = microgram per litre
mg/kg = milligram per kilogram
n.d. = not detected (< Reporting Limit)

Remarks:

List of Chlorophenols being tested (Table 2C and Table 3 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	CAS No.	Reporting Limit		ZDHC Limit	
		Wastewater (µg/L)	Sludge (mg/kg)	Wastewater (µg/L)	Sludge (mg/kg)
2-Chlorophenol	95-57-8	0.5	0.03	0.5	TBC
3-chlorophenol	108-43-0				
4-chlorophenol	106-48-9				
2,3-Dichlorophenol	576-24-9				

Test Report No.:0192409936

Page 18 of 29

Parameter	CAS No.	Reporting Limit		ZDHC Limit	
		Wastewater (µg/L)	Sludge (mg/kg)	Wastewater (µg/L)	Sludge (mg/kg)
2,4-Dichlorophenol	120-83-2				
2,5-Dichlorophenol	583-78-8				
2,6-Dichlorophenol	87-65-0				
3,4-Dichlorophenol	95-77-2				
3,5- Dichlorophenol	591-35-5				
2,3,4-Trichlorophenol	15950-66-0				
2,3,5-Trichlorophenol	933-78-8				
2,3,6-Trichlorophenol	933-75-5				
2,4,5-Trichlorophenol	95-95-4				
2,4,6-Trichlorophenol	88-06-2				
3,4,5-Trichlorophenol	609-19-8				
2,3,4,5-Tetrachlorophenol	4901-51-3				
2,3,4,6-Tetrachlorophenol	58-90-2				
2,3,5,6-Tetrachlorophenol	935-95-5				
Pentachlorophenol	87-86-5				

Dyes – Azo (Forming Restricted Amines)*

Test Method: EN 14368-1, EN 14362-3 Reduction step with sodium dithionite solvent extraction, GC-MS or LC-MS-MS

Parameter	Result	Result
	M001 (µg/L)	M002 (µg/L)
Dyes – Azo (Forming Restricted Amines)	N.D.	N.D.

Abbreviation: µg/ L = microgram per litre
mg/kg = milligram per kilogram
n.d. = not detected (< Reporting Limit)

Remarks

List of Dyes – Azo (Forming Restricted Amines) being tested (Table 2D and Table 3 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	CAS No.	Reporting Limit		ZDHC Limit	
		Wastewater (µg/L)	Sludge (mg/kg)	Wastewater (µg/L)	Sludge (mg/kg)
4,4'-Methylene-bis(2-chloroaniline)	101-14-4	0.1	0.2	0.1	TBC
4,4'-Diaminodiphenylmethane	101-77-9				
4,4'-Oxydianiline	101-80-4				
4-Chloroaniline	106-47-8				
3,3'-Dimethoxybenzidine	119-90-4				

Test Report No.:0192409936

Page 19 of 29

Parameter	CAS No.	Reporting Limit		ZDHC Limit	
		Wastewater (µg/L)	Sludge (mg/kg)	Wastewater (µg/L)	Sludge (mg/kg)
3,3'-Dimethylbenzidine	119-93-7				
6-methoxy-m-toluidine	120-71-8				
2,4,5-Trimethylaniline	137-17-7				
4,4'-Thiodianiline	139-65-1				
4-Aminoazobenzene	60-09-3				
4-Methoxy-m-phenylenediamine	615-05-4				
4,4'-methylenedi-o-toluidine	838-88-0				
2,6-Xylidine	87-62-7				
o-Anisidine	90-04-0				
2-Naphthylamine	91-59-8				
3,3'-Dichlorobenzidine	91-94-1				
4-Aminobiphenyl	92-67-1				
Benzidine	92-87-5				
o-Toluidine	95-53-4				
2,4-Xylidine	95-68-1				
4-Chloro-o-toluidine	95-69-2				
4-methyl-m-phenylenediamine	95-80-7				
o-Aminoazotoluene	97-56-3				
5-Nitro-o-toluidine	99-55-8				

Dyes – Carcinogenic or Equivalent Concern*

Test Method: Inhouse method - Liquid extraction, LC-MS-MS

Parameter	Result	Result
	M001 (µg/L)	M002 (µg/L)
Dyes – Carcinogenic or Equivalent Concern	N.D.	N.D.

Abbreviation: µg/ L = microgram per litre
mg/kg = milligram per kilogram
n.d. = not detected (< Reporting Limit)

Remarks:

List of Dyes – Carcinogenic or Equivalent Concern being tested (Table 2E and Table 3 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	CAS No.	Reporting Limit		ZDHC Limit	
		Wastewater (µg/L)	Sludge (mg/kg)	Wastewater (µg/L)	Sludge (mg/kg)
C.I. Direct Black 38	1937-37-7				
C.I. Direct Blue 6	2602-46-2	500	1	500	TBC
C.I. Acid Red 26	3761-53-3				

Test Report No.:0192409936

Page 20 of 29

Parameter	CAS No.	Reporting Limit		ZDHC Limit	
		Wastewater (µg/L)	Sludge (mg/kg)	Wastewater (µg/L)	Sludge (mg/kg)
C.I. Basic Red 9	569-61-9				
C.I. Direct Red 28	573-58-0				
C.I. Basic Violet 14	632-99-5				
C.I. Disperse Blue 1	2475-45-8				
C.I. Disperse Blue 3	2475-46-9				
C.I. Basic Blue 26 (with Michler's Ketone >0.1%)	2580-56-5				
C.I Basic Green 4 (malachite green chloride)	569-64-2				
C.I Basic Green 4 (malachite green oxalate)	2437-29-8				
C.I Basic Green 4 (malachite green)	10309-95-2				
Disperse Orange 11	82-28-0				

Dyes – Disperse (Sensitizing)*

Test Method: Inhouse method - Liquid extraction, LC-MS-MS

Parameter	Result	Result
	M001 (µg/L)	M002 (µg/L)
Dyes – Disperse(Sensitizing)	N.D.	N.D.

Abbreviation: µg/ L = microgram per litre
mg/kg = milligram per kilogram
n.d. = not detected (< Reporting Limit)

Remarks:

List of Dyes – Carcinogenic or Equivalent Concern being tested (Table 2F and Table 3 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	CAS No.	Reporting Limit		ZDHC Limit	
		Wastewater (µg/L)	Sludge (mg/kg)	Wastewater (µg/L)	Sludge (mg/kg)
Disperse Yellow 1	119-15-3	50	1	50	TBC
Disperse Blue 102	12222-97-8				
Disperse Blue 106	12223-01-7				
Disperse Yellow 39	12236-29-2				
Disperse Orange 37/59/76	13301-61-6				
Disperse Brown 1	23355-64-8				
Disperse Orange 1	2581-69-3				
Disperse Yellow 3	2832-40-8				

Test Report No.:0192409936

Page 21 of 29

Parameter	CAS No.	Reporting Limit		ZDHC Limit	
		Wastewater (µg/L)	Sludge (mg/kg)	Wastewater (µg/L)	Sludge (mg/kg)
Disperse Red 11	2872-48-2				
Disperse Red 1	2872-52-8				
Disperse Red 17	3179-89-3				
Disperse Blue 7	3179-90-6				
Disperse Blue 26	3860-63-7				
Disperse Yellow 49	54824-37-2				
Disperse Blue 35	12222-75-2				
Disperse Blue 124	61951-51-7				
Disperse Yellow 9	6373-73-5				
Disperse Orange 3	730-40-5				
Disperse Blue 35	56524-77-7				

Flame Retardants*

Test Method: USEPA 8270, ISO 22032, US EPA 527 and US EPA 8321B, Solvent Extraction, GC-MS, GC-MS/MS and LC-MS/MS

Parameter	Result	Result
	M001 (µg/L)	M002 (µg/L)
TCEP	N.D.	N.D.
DecaBDE	N.D.	N.D.
TRIS	N.D.	N.D.
PentaBDE	N.D.	N.D.
OctaBDE	N.D.	N.D.
BIS	N.D.	N.D.
TEPA	N.D.	N.D.
PBB	N.D.	N.D.
TBBPA	N.D.	N.D.
HBCDD	N.D.	N.D.
BBMP	N.D.	N.D.
TDCP	N.D.	N.D.
SCCP	N.D.	N.D.

Abbreviation: µg/L = microgram per litre
mg/kg = milligram per kilogram
n.d. = not detected (< Reporting Limit)

Remarks:

List of Flame Retardants being tested (Table 2G and Table 3 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	CAS No.	Reporting Limit	ZDHC Limit
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		Wastewater (µg/L)	Sludge (mg/kg)	Wastewater (µg/L)	Sludge (mg/kg)
Tris-(2-chloro-ethyl)-phosphate (TCEP)	115-96-8	5	0.25	5	TBC
Decabromodiphenyl ether (DecaBDE)	1163-19-5		0.25		
Tri-(2,3-di-bromo-propyl)-phosphate (TRIS)	126-72-7		0.25		
Pentabromodiphenyl ether (PentaBDE)	32534-81-9		0.25		
Octabromodiphenyl ether (OctaBDE)	32536-52-0		0.25		
Bis-(2,3-di-bromo-propyl)-phosphate (BIS)	5412-25-9		0.25		
Tris(1-aziridinyl)phosphine oxide (TEPA)	545-55-1		0.25		
Polybromobiphenyls (PBB)	59536-65-1		0.25		
Tetra-bromo-bisphenol-A (TBBPA)	79-94-7		0.25		
Hexabromocyclododecan (HBCDD)	3194-55-6		0.25		
2,2-bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0		0.25		
Tris-(1,3-di-chloro-iso-propyl)-phosphate (TDCP)	13674-87-8		0.25		
Short chain chlorinated paraffins,C10-C13 (SCCP)	85535-84-8		0.25		

Glycols*

Test Method: US EPA 8270 liquid extraction by GC-MS

Parameter	Result	Result
	M001 (µg/L)	M002 (µg/L)
Bis(2-methylethyl)ether	N.D.	N.D.
2-Ethoxyethanol	N.D.	N.D.
2-Ethoxyethyl acetate	N.D.	N.D.
Ethylene glycol dimethyl ether	N.D.	N.D.
2-Methoxyethanol	N.D.	N.D.
2-Methoxyethyl acetate	N.D.	N.D.
2-Methoxypropyl acetate	N.D.	N.D.
Triethylene Glycol Dimethyl Ether	N.D.	N.D.

Abbreviation: µg/ L = microgram per litre
mg/kg = milligram per kilogram
n.d. = not detected (< Reporting Limit)

Remarks:

List of Glycols being tested (Table 2H and Table 3 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	CAS No.	Reporting Limit		ZDHC Limit	
		Wastewater (µg/L)	Sludge (mg/kg)	Wastewater (µg/L)	Sludge (mg/kg)
Bis(2-methylethyl)ether	111-96-6	50	1	50	TBC

Test Report No.:0192409936

Page 23 of 29

Parameter	CAS No.	Reporting Limit		ZDHC Limit	
		Wastewater (µg/L)	Sludge (mg/kg)	Wastewater (µg/L)	Sludge (mg/kg)
2-Ethoxyethanol	110-80-5				
2-Ethoxyethyl acetate	111-15-9				
Ethylene glycol dimethyl ether	110-71-4				
2-Methoxyethanol	109-86-4				
2-Methoxyethyl acetate	110-49-6				
2-Methoxypropyl acetate	70657-70-4				
Triethylene Glycol Dimethyl Ether	112-49-2				

Halogenated Solvents*

Test Method:
US EPA 8260B, Purge and Trap Technique, GC-MS

Parameter	Result	Result
	M001 (µg/L)	M002 (µg/L)
1,2-Dichloroethane	N.D.	N.D.
Methylene chloride	N.D.	N.D.
Tetrachloroethylene	N.D.	N.D.
Trichloroethylene	N.D.	N.D.

Abbreviation: µg/L = microgram per litre
mg/kg = milligram per kilogram
n.d. = not detected (< Reporting Limit)

Remarks:

List of Halogenated Solvents being tested (Table 2I and Table 3 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	CAS No.	Reporting Limit		ZDHC Limit	
		Wastewater (µg/L)	Sludge (mg/kg)	Wastewater (µg/L)	Sludge (mg/kg)
1,2-Dichloroethane	107-06-2	1	0.3	1	TBC
Methylene chloride	75-09-2				
Tetrachloroethylene	127-18-4				
Trichloroethylene	79-01-6				

Organotin Compounds*Test Method: ISO 17353, Derivatisation with NaB(C₂H₅), GC/MS

Parameter	Result	Result
	M001 (µg/L)	M002 (µg/L)
Mono-,di-and tri-methyltin derivatives	N.D.	N.D.
Mono-,di-and tri-butyltin derivatives	N.D.	N.D.
Mono-,di-and tri-phenyltin derivatives	N.D.	N.D.
Mono-,di-and tri-octyltin derivatives	N.D.	N.D.

Abbreviation: µg/ L = microgram per litre
mg/kg = milligram per kilogram
n.d. = not detected (< Reporting Limit)

Remarks:

List of Organotin Compounds being tested (Table 2J and Table 3 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	CAS No.	Reporting Limit		ZDHC Limit	
		Wastewater (µg/L)	Sludge (mg/kg)	Wastewater (µg/L)	Sludge (mg/kg)
Mono-,di-and tri-methyltin derivatives	Multiple	0.01	0.01	0.01	TBC
Mono-,di-and tri-butyltin derivatives	Multiple				
Mono-,di-and tri-phenyltin derivatives	Multiple				
Mono-,di-and tri-octyltin derivatives	Multiple				

Perfluorinated and Polyfluorinated Chemicals (PFCs)*

Test Method: DIN 38407-42 (modified) Ionic PFC : concentration or direct injection, LC-MS-MS; Non-ionic : PFC (FTOH) derivatisation with acetic anhydride followed by GC-MS

Parameter	Result	Result
	M001 (µg/L)	M002 (µg/L)
PFOS	N.D.	N.D.
PFOA	N.D.	N.D.
PFBS	N.D.	N.D.
PFHxA	N.D.	N.D.
8:2 FTOH	N.D.	N.D.
6:2 FTOH	N.D.	N.D.

Abbreviation: µg/ L = microgram per litre
mg/kg = milligram per kilogram
n.d. = not detected (< Reporting Limit)

Remarks:

List of Perfluorinated and Polyfluorinated Chemicals (PFCs) being tested (Table 2K and Table 3 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	CAS No.	Reporting Limit		ZDHC Limit	
		Wastewater (µg/L)	Sludge (mg/kg)	Wastewater (µg/L)	Sludge (mg/kg)
PFOS	355-46-4 432-50-7	0.01	0.05	0.01	TBC
PFOA	335-67-1				
PFBS	29420-49-3 29420-43-3				
PFHxA	307-24-4				
8:2 FTOH	678-39-7	1	5	1	
6:2 FTOH	647-42-7				

Phthalates – Including all other esters of phthalic acid*

Test Method: US EPA 8270D, Solvent Extraction GC-MS Analysis

Parameter	Result	Result
	M001 (µg/L)	M002 (µg/L)
DEHP	N.D.	N.D.
DMEP	N.D.	N.D.
DNOP	N.D.	N.D.
DIDP	N.D.	N.D.
DINP	N.D.	N.D.
DnHP	N.D.	N.D.
DBP	N.D.	N.D.
BBP	N.D.	N.D.
DNP	N.D.	N.D.
DEP	N.D.	N.D.
DPRP	N.D.	N.D.
DIBP	N.D.	N.D.
DCHP	N.D.	N.D.
DIOP	N.D.	N.D.
DHNUP	N.D.	N.D.
DIHP	N.D.	N.D.

Abbreviation: µg/L = microgram per litre
mg/kg = milligram per kilogram
n.d. = not detected (< Reporting Limit)

Remarks:

List of Phthalates being tested (Table 2L and Table 3 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	CAS No.	Reporting Limit		ZDHC Limit	
		Wastewater (µg/L)	Sludge (mg/kg)	Wastewater (µg/L)	Sludge (mg/kg)
Di(ethylhexyl)phthalate (DEHP)	117-81-7	10	1	10	TBC
Bis (2-methoxyethyl) phthalate (DMEP)	117-82-8				
Di-n-octyl phthalate (DNOP)	117-84-0				
Di-iso-decyl phthalate (DIDP)	26761-40-0				
Di-isononyl phthalate (DINP)	28553-12-0				
Di-n-hexyl phthalate (DnHP)	84-75-3				
Di-n-butyl phthalate (DBP)	84-74-2				
Butyl benzyl phthalate (BBP)	85-68-7				
Dinonyl phthalate (DNP)	84-76-4				
Diethyl phthalate (DEP)	84-66-2				
Di-n-propyl phthalate (DPRP)	131-16-8				
Di-isobutyl phthalate (DIBP)	84-69-5				
Di-cyclohexyl phthalate (DCHP)	84-61-7				
Di-iso-octyl phthalate (DIOP)	27554-26-3				
1,2-benzenedicarboxylic acid, di-C7- 11-branched and linearalkyl esters (DHNUF)	68515-42-4				
1,2-benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6				

Polycyclic Aromatic Hydrocarbons (PAHs)*

Test Method: US EPA 8270, Solvent extraction GC-MS

Parameter	Result	Result
	M001 (µg/L)	M002 (µg/L)
Benzo(a)pyrene	N.D.	N.D.
Anthracene	N.D.	N.D.
Pyrene	N.D.	N.D.
Benzo[ghi]perylene	N.D.	N.D.
Benzo(e)pyrene	N.D.	N.D.
Indeno[1,2,3-cd]pyrene	N.D.	N.D.
Benzo(j)fluoranthene	N.D.	N.D.
Benzo[b]fluoranthene	N.D.	N.D.
Fluoranthene	N.D.	N.D.
Benzo[k]fluoranthene	N.D.	N.D.
Acenaphthylene	N.D.	N.D.
Chrysene	N.D.	N.D.

Test Report No.:0192409936

Page 27 of 29

Dibenz(a,h)anthracene	N.D.	N.D.
Benzo[a]anthracene	N.D.	N.D.
Acenaphthene	N.D.	N.D.
Phenanthrene	N.D.	N.D.
Fluorene	N.D.	N.D.
Naphthalene	N.D.	N.D.

Abbreviation: µg/ L = microgram per litre
mg/kg = milligram per kilogram
n.d. = not detected (< Reporting Limit)

Remarks:

List of PAH being tested (Table 2M and Table 3 of ZDHC wastewater guidelines, issued in Nov 2016)

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

Volatile Organic Compounds (VOC)*

Test Method:
US EPA 8260, Purge and Trap technique, GC-MS

Parameter	Result	Result
	M001 (µg/L)	M002 (µg/L)
Benzene	N.D.	N.D.
Xylene	N.D.	N.D.
o-cresol	N.D.	N.D.
p-cresol	N.D.	N.D.
m-cresol	N.D.	N.D.

Abbreviation: µg/ L = microgram per litre
mg/kg = milligram per kilogram
n.d. = not detected (< Reporting Limit)

Remarks:

List of VOC being tested (Table 2N and Table 3 of ZDHC wastewater guidelines, issued in Nov 2016)

Parameter	CAS No.	Reporting Limit		ZDHC Limit	
		Wastewater (µg/L)	Sludge (mg/kg)	Wastewater (µg/L)	Sludge (mg/kg)
Benzene	71-43-2	1	0.1	1	TBC
Xylene	1330-20-7				
o-cresol	95-48-7				
p-cresol	106-44-5				
m-cresol	108-39-4				

END

General Terms and Conditions of Business of TÜV Rheinland (India) Pvt Ltd

1. **Scope**
 - 1.1 The following terms and conditions apply to agreed services including consultancy services, information, deliveries and similar services as well as ancillary services and other secondary obligations provided within the scope of contract performance.
 - 1.2 If there is any conflict between these terms and conditions and the client's General Terms and Conditions of Business, including the client's 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 TÜV 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 TÜV 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 TÜV Rheinland (India) Pvt Ltd. If the client instructs TÜV Rheinland (India) Pvt Ltd without receiving a prior quotation from TÜV Rheinland (India) Pvt Ltd (quotation), TÜV Rheinland (India) Pvt Ltd is – in its sole discretion – entitled to accept the order by giving written notice of such acceptance (including notice sent via electronic means) or by performing the requested services.
 - 3.2 The contract term starts upon the coming into effect of the contract in accordance with article 3.1 and shall continue for the term agreed in the 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 TÜV Rheinland (India) Pvt 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, TÜV Rheinland (India) Pvt 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, organisations, 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, TÜV 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 confirmed as binding by TÜV Rheinland (India) Pvt 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 TÜV Rheinland (India) Pvt Ltd. This also applies, even without express approval by the client, to all extensions of agreed dates for performance not caused by TÜV Rheinland (India) Pvt Ltd.
 6. **The client's obligation to cooperate**
 - 6.1 The client shall guarantee that all cooperation required on its part, its agents or third parties will be provided in good time and at no cost to TÜV Rheinland (India) Pvt Ltd.
 - 6.2 Design documents, supplies, auxiliary staff, etc. necessary for performance of the services shall be made available free of charge by the client. Moreover, collaborative action of the client must be undertaken in accordance with legal provisions, standards, safety regulations and accident prevention instructions.
 - 6.3 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 or lack of proper cooperation. Even where a fixed or maximum price is agreed, TÜV Rheinland (India) Pvt Ltd shall be entitled to charge extra for such additional expense.
 7. **Invoicing of work**
 - 7.1 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 work.
 - 7.3 If the execution of an order extends over more than 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. **Payment terms**
 - 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 Payments shall be made to the bank account of TÜV Rheinland (India) Pvt Ltd as indicated on the invoice, stating the invoice and customer numbers.
 - 8.3 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 deserves the right to claim further damages.
 - 8.4 Should the client default in payment of the invoice despite being granted a reasonable grace period, TÜV Rheinland (India) Pvt Ltd shall be entitled to cancel the contract, withdraw the certificate, claim damages for non-performance and refuse to continue performance of the contract. TÜV Rheinland (India) Pvt Ltd also 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/bodies.
 - 8.5 The provisions set forth in article 8.4 shall also apply in cases involving returned cheques, cessation of payment, commencement of insolvency proceedings against the client's assets or cases in which the commencement of insolvency proceedings has been dismissed due to lack of assets.
 - 8.6 Objections to the invoices of TÜV Rheinland (India) Pvt Ltd shall be submitted in writing within two weeks of receipt of the invoice.
 - 8.7 TÜV Rheinland (India) Pvt Ltd shall be entitled to demand appropriate advance payments.
 - 8.8 TÜV Rheinland (India) Pvt 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, TÜV Rheinland (India) Pvt Ltd shall notify the client in writing of the rise in fees. This notification shall be issued one month prior to the date on which the rise in fees shall come into effect (period of notice of changes in fees). If the rise in fees remains under 5% per contractual year, the client shall not have any special right of termination. If the rise in fees exceeds 5% per contractual year, 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.
 - 8.9 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 service.
 10. **Confidentiality**
 - 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.
 - 10.2 The disclosing party shall mark all confidential information disclosed in written form as confidential before passing it on to the receiving party. The same applies to confidential information transmitted by e-mail. If confidential information is disclosed orally, 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 copied, distributed, published or otherwise disclosed by the receiving party, unless this is necessary for fulfilling the purpose of the contract or TÜV Rheinland (India) Pvt Ltd ... 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 confidentiality 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; or
 - b) it was disclosed to the receiving party by a third party entitled to disclose this information; or
 - c) the receiving party already possessed this information prior to disclosure by the disclosing party; or
 - 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 agreement.
 - 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, on request by the disclosing party, to (ii) destroy all confidential information, including all copies, and confirm the destruction of this confidential information to the disclosing party in writing, at any time if so requested 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, which shall remain with the client. However, TÜV 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 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 unshortened. 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 annual fee; (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 (iv) 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) Pvt Ltd is limited in any event of damage or loss to the contract value/Rs. 10,00,000/- (Rupees Ten Lacs) whichever is lower.
- 12.2 The maximum liability of TÜV Rheinland (India) Pvt Ltd is limited in any event of damage or loss to the contract value/Rs. 10,00,000/- (Rupees Ten Lacs) whichever is lower.
- 12.3 TÜV Rheinland (India) Pvt Ltd shall not be liable for personnel made available by the client to support TÜV Rheinland (India) Pvt Ltd in the performance of its services regulated under this contract. The client shall indemnify TÜV Rheinland (India) Pvt Ltd against any claims made by third parties for all loss that may be caused to or suffered by TÜV Rheinland (India) Pvt Ltd due to acts of omission and commission by the client.
- 12.4 The limitation periods for claims for damages shall be based on statutory provisions.
- 12.5 None of the provisions of this article 12 changes the burden of proof to the disadvantage of the client.

13. Partial invalidity, written form, place of jurisdiction

- 13.1 No ancillary agreements to this contract have been concluded.
- 13.2 All amendments and supplements must be in writing in order to be effective, this also applies to amendments and supplements to the requirement for the written form.
- 13.3 Should one 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 closest 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 / or connected with the contract between TÜV 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 Sole Arbitrator to be nominated by the mutual consent of TÜV and the client. The arbitration proceedings shall be conducted in the English language only.
- 13.6 Subject to resolution of disputes through arbitration, only the Courts in Bangalore, India, shall be exclusive jurisdiction over all matters arising out of and / or connected with the contract between TÜV and the Client.

Revised: July 2012