

Test Report No.:	244331249a 001							01 42	
Client:	HANG			NG (	CO.,LT	D.			
	Dikai Mansion, No.471 Jincheng Road, Xiaoshan District, Hangzhou								
	Conta	ct Person:	Li Mingyua	ın					
Buyer's Name		: _							
Factory Details Factory Name Factory Address (with geogra coordinates) Discharge Type of Wastewater For Indirect discharge Name of public wastewater treatment plants(CETP) Address of public wastewater treatment plants(CETP) Sampling Details Sampling Date Sample Receiving Date Testing Period Sampling Method:	phical er	<ul> <li>Hangzh</li> <li>Hangmi Provinci</li> <li>Indirect</li> <li>Xiaosha</li> <li>Xiaosha</li> <li>2021-05</li> <li>2021-05</li> <li>2021-05</li> </ul>	ou Hangmin n Industry Ar e,China discharge an Eastarea M n District Gu i-17 i-19 i-19 to 2021-	Dame ea, G Waste ali To 06-01	ei Dyeir suali To ewater T own Yur	ng Arrangemo wn, Xiaoshar ⊡reatment Pla nxicun	ents Co.,L1 n District, F ant	td. Hangzhou City,	Zhejiang
Sample Type	Total	Volume	1		2	3	4	5	6
Discharged Wastewater	1	6.5L	09:00	10	0:00	11:00	12:00	13:00	14:00
Raw Wastewater		-	-		-	-	-	-	-
Incoming Water	1	11.9L 09:30							
Sludge							-		
Overall Rating		Dischard	ed Wastew	ater	R	aw Wastewa	ater	Slud	ae
Conventional Parameters / A Metals	nion /	Exceed	Exceed Foundational Limit		Not Tested		b.	Not Tested	
MRSL Parameters		(	Comply			Not Tested	t t	Not Te	sted

Legal ComplianceNot ComplyNot TestedNot TestedSpecificationsZDHC Wastewater Guidelines Version 1.1 (July 2019)<br/>GB 4287-2012 (Regulatory Requirement Listed in APPENDIX A)

For and on behalf of TÜV Rheinland (Shanghai) Co., Ltd.

2021-06-02

Carmen Yan / Department Manager

Date

Name/Position

Sample information is provided by customer. Test result is drawn according to the kind and extent of tests performed. This test report relates to the above mentioned 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.

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Page 2 of 42

## **Result Summary :**

Conventional Parameters	Incoming Water	Discharged Wastewater	Raw Wastewater	Sludge
Temperature	-	Exceed	-	-
Total Suspended Solids (TSS)	-	Exceed	-	-
Chemical Oxygen Demand (COD)	-	Exceed	-	-
Total Nitrogen	-	Foundational	-	-
pH Value	-	Aspirational	-	-
Colour(ISO 7887-B)	-	Exceed	-	-
Colour(GB/T 11903)	-	Comply	-	-
Biochemical Oxygen Demand (BOD5) - 5 Days	-	Exceed	-	-
Ammonium Nitrogen	-	Aspirational	-	-
Total Phosphorous	-	Exceed	-	-
Adsorbable Organic Halogens (AOX)	-	Aspirational	-	-
Oil and Grease	-	Foundational	-	-
Phenol	-	Foundational	-	-
Coliform	-	Aspirational	-	-
Persistent Foam	-	Aspirational	-	-
Anion - Sulfide	-	Aspirational	-	-
Anion - Sulfite	-	Aspirational	-	-
Anion - Cyanide	-	Aspirational	-	-
Chlorine dioxide	-	Comply	-	-
Aniline Compounds	-	Comply	-	-
Heavy Metals	-	Foundational	-	-
Manufacturing Restricted Substances List (MRSL)	Incoming Water	Discharged Wastewater	Raw Wastewater	Sludge
Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): Including All Isomers	-	Comply	-	-
Chlorobenzenes and Chlorotoluenes	-	Comply	-	-
Chlorophenols	-	Comply	-	-
Dyes - Azo (Forming Restricted Amines)	-	Comply	-	-
Dyes - Carcinogenic or Equivalent Concern	-	Comply	-	-
Dyes - Disperse (Sensitizing)	-	Comply	-	-
Flame Retardants	-	Comply	-	-
Glycols	-	Comply	-	-
Halogenated Solvents	-	Comply	-	-
Organotin Compounds	-	Comply	-	-
Perfluorinated and Polyfluorinated Chemicals (PFCs)	-	Comply	-	-
Phthalates - Including all other esters of phthalic acid	-	Comply	-	-
Polycyclic Aromatic Hydrocarbons (PAHs)	-	Comply	-	-
Volatile Organic Compounds (VOC)	-	Comply	-	-

Note: Aspirational = Fullfill Aspirational Limit Foundational = Fullfill Foundational Limit Comply = Comply with ZDHC Limit - = Not Tested Progressive = Fullfill Progressive Limit Exceed = Exceed Foundational Limit

Not Comply = Not Comply with ZDHC Limit



Page 3 of 42

#### Material List:

Field ID	Sample Type	Sample Description		
D001	Discharge	Discharged Wastewater		
Notes:				
* Discharge Wastewa	ter: Wastewater that is released from not limited to: water bodies, land beyond the supplier's property b	n a supplier, either directly to the environment (including but d application/irrigation), or to a wastewater treatment system ooundaries.		
* Direct Discharge:	A point source that discharges of Distribution of wastewater onto bodies and suppliers that introd outlet pipes are direct discharge	vastewater to stream, lakes, oceans, or other receiving bodies. land is also considered a type of direct discharge. Municipal uce pollution through a defined conveyance or system such as ers.		
* Indirect Discharge:	rge: The discharge of wastewater through a sanitary or industrial wastewater sewer system central or common effluent treatment plant (CETP) not owned and/ or operated by the discharging the pollutants.			
* Raw Wastewater: (Untreated Wastewa	Wastewater that has not yet been efforts. This wastewater therefore	en treated prior to direct or indirect discharge, or recycling re does not meet the quality standards for beneficial use.		
* Sludge:	The solid or semi-solid material septic and Zero Liquid Discharg	separated during the wastewater treatment process, including e (ZLD) systems.		
* Incoming Water:	Water that is supplied to a many bodies, groundwater, collected t	ufacturing process, usually withdrawn from surface water from rainfall, supplied by municipalities, etc.		



Page 4 of 42

## 1.Temperature

			Samp	le No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Temperature of the receiving body of water	Temp-Receiving Water	GB/T 13195	C	NA	20
Temperature of the water in the discharge pipe	Temp-Discharge Pipe	GB/T 13195	C	NA	47
The difference between the discharge pipe temp and the receiving body of water	Temp-Difference	GB/T 13195	С	NA	27
Conclusion					Exceed Foundational Limit

Abbreviation: C =Degrees Celsius NA = Not Applicable

### Remark:

The limits according to ZDHC limit (Table 1A of ZDHC Wastewater Guidelines Version 1.1 issued in July 2019):

Paramotor	ZDHC Limit (°C)			
Falailletei	Foundational	Progressive	Aspirational	
Temperature	$\Delta$ 15 or max 35	$\Delta$ 10 or max 30	$\Delta$ 5 or max 25	

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



Page 5 of 42

## 2.Total Suspended Solids (TSS)

			Samp	le No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Total Suspended Solids	TSS	GB/T 11901	mg/L	5	133
Conclusion					Exceed Foundational Limit

Abbreviation: < =less than RL =reporting limit mg/L = milligram per liter

### Remark:

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



Page 6 of 42

## 3.Chemical Oxygen Demand (COD)

			Samp	le No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Chemical Oxygen Demand	COD	HJ 828	mg/L	30	876
Conclusion					Exceed Foundational Limit

Abbreviation: < =less than RL =reporting limit mg/L = milligram per liter

### Remark:

Baramotor	ZDHC Limit (mg/L)				
Falameter	Foundational Progressive		Aspirational		
Chemical Oxygen Demand (COD)	150	80	40		



Page 7 of 42

### **4.Total Nitrogen**

			Samp	le No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Total Nitrogen	TOTAL-N	HJ 636	mg/L	2	16
Conclusion		1	•		Fullfill
					Foundational
					Limit

Abbreviation: < =less than RL =reporting limit mg/L = milligram per liter

### Remark:

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



Page 8 of 42

### 5.pH Value

			Samp	le No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
pH Value	PH	GB/T 6920	NONE	NA	7
Conclusion					Fullfill
					Aspirational Limit

#### Abbreviation: NA = Not Applicable

#### Remark:

Baramatar				
Faranieter	Foundational	Progressive	Aspirational	
pH Value	6-9			



Page 9 of 42

## 6.Colour

			Samp	le No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Colour 436 NM	COLOUR-436	ISO 7887-B	m⁻¹	NA	21.0
Colour 525 NM	COLOUR-525	ISO 7887-B	m⁻¹	NA	17.1
Colour 620 NM	COLOUR-620	ISO 7887-B	m⁻¹	NA	16.4
Conclusion					Exceed Foundational

Abbreviation: NM = nanometer NA = Not Applicable

### Remark:

Parameter	ZDHC Limit (m⁻¹)			
	Foundational	Progressive	Aspirational	
Colour	7;5;3	5;3;2	2;1;1	



Page 10 of 42

## 7.Colour

			Samp	le No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Colour	NA	GB/T 11903	Du	NA	20
Conclusion					Comply

## Abbreviation: NA = Not Applicable

#### Remark:

Legal limit according to regulatory requirement listed in APPENDIX A.



Page 11 of 42

8.Biochemical Oxygen Demand (BOD5) - 5 Days

			Samp	le No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Biochemical Oxygen Demand	BOD5	HJ 505	mg/L	5	840
Conclusion					Exceed Foundational Limit

Abbreviation: < =less than RL =reporting limit

mg/L = milligram per liter

### Remark:

Baramotor	ZDHC Limit (mg/L)			
Farameter	Foundational	Progressive	Aspirational	
Biochemical Oxygen Demand (BOD₅)	30	15	5	



Page 12 of 42

#### 9.Ammonium Nitrogen

			Samp	le No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Ammonium Nitrogen	AMMONIUM-N	HJ 535	mg/L	0.5	< RL
Conclusion					Fullfill
					Aspirational Limit

Abbreviation: < =less than RL =reporting limit mg/L = milligram per liter

#### Remark:

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



Page 13 of 42

#### 10.Total Phosphorous

			Samp	le No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Total Phosphorous	TOTAL-P	GB/T 11893	mg/L	0.1	4.8
Conclusion		<u>.</u>			Exceed Foundational Limit

Abbreviation: < =less than RL =reporting limit mg/L = milligram per liter

### Remark:

Baramatar					
Farameter	Foundational Progressive Aspiration				
Total Phosphorous	3	0.5	0.1		



Page 14 of 42

11.Adsorbable Organic Halogens (AOX)

			Samp	le No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Adsorbable Organic Halogens	AOX	ISO 9562	mg/L	0.1	0.1
Conclusion					Fullfill
					Aspirational Limit

Abbreviation: < =less than RL =reporting limit mg/L = milligram per liter

#### Remark:

Baramotor	ZDHC Limit (mg/L)				
Falameter	Foundational	Aspirational			
Adsorbable Organic Halogens (AOX)	5	1	0.1		



Page 15 of 42

#### 12.Oil and Grease

			Samp	le No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Oil and Grease	OG	HJ 637	mg/L	0.5	4.99
Conclusion					Fullfill
					Foundational
					Limit

Abbreviation: < =less than RL =reporting limit mg/L = milligram per liter

#### Remark:

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



Page 16 of 42

### 13.Phenol

			S	ample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Phenol	108-95-2	HJ 503	mg/L	0.001	0.029
Conclusion		·			Fullfill
					Limit

Abbreviation: < =less than RL =reporting limit

mg/L = milligram per liter

### Remark:

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



Page 17 of 42

### 14.Coliform

			Samp	le No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Coliform	COLIFORM	GB/T 5750.12	bacteria/ 100ml	10	21
Conclusion					Fullfill
					Aspirational Limit

#### Abbreviation: < =less than RL =reporting limit

#### Remark:

Peremeter	ZDHC Limit (bacteria/100ml)				
Farameter	Foundational Progressive		Aspirational		
Coliform	400	100	25		



Page 18 of 42

#### **15.Persistent Foam**

			Samp	le No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Persistent Foam	FOAM	Visual	NONE	NA	Not Visible
Conclusion	L				Fullfill
					Aspirational Limit

#### Abbreviation: NA = Not Applicable

#### Remark:

Baramotor	ZDHC Limit				
Farailleter	Foundational	Progressive	Aspirational		
Persistent Foam	The presence of foam is no thicker than 45 centimetres (by visual estimation), and is contained within the aeration basin.				



Page 19 of 42

#### 16.Anion - Sulfide

			Samp	le No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Anion - Sulfide	18496-25-8	GB/T 16489	mg/L	0.01	< RL
Conclusion					Fullfill
					Aspirational Limit

Abbreviation: < =less than RL =reporting limit mg/L = milligram per liter

#### Remark:

Parameter	ZDHC Limit (mg/L)				
Falametei	Foundational	Foundational Progressive			
Anion - Sulfide	0.5	0.05	0.01		



Page 20 of 42

#### 17.Anion - Sulfite

			Samp	le No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Anion - Sulfite	14265-45-3	US EPA 377.1	mg/L	0.2	< RL
Conclusion					Fullfill
					Aspirational Limit

Abbreviation: < =less than RL =reporting limit mg/L = milligram per liter

#### Remark:

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



Page 21 of 42

### 18.Anion - Cyanide

			Samp	le No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Anion - Cyanide	57-12-5	HJ 484	mg/L	0.05	< RL
Conclusion					Fullfill Aspirational Limit

Abbreviation: < =less than RL =reporting limit mg/L = milligram per liter mg/kg = milligram per kilogram

## Remark:

Parameter	ZDHC Lin	nit for Wastewat	er (mg/L)	ZDHC Limit (mg/kg)
Farailleter	Foundational	Progressive	Aspirational	Sludge
Cyanide	0.2	0.1	0.05	1



Page 22 of 42

### 19.Chlorine dioxide

			Samp	le No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Chlorine dioxide	NA	HJ 551	mg/L	0.36	< RL
Conclusion			• • • • • • • • • • • • • • • • • • • •		Comply

Abbreviation: < =less than RL =reporting limit mg/L = milligram per liter

## Remark:

Legal limit according to regulatory requirement listed in APPENDIX A.



Page 23 of 42

### 20.Aniline Compounds

			Samp	le No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Aniline Compounds	NA	GB/T 11889	mg/L	0.03	0.42
Conclusion					Comply

Abbreviation: < =less than RL =reporting limit mg/L = milligram per liter

### Remark:

Legal limit according to regulatory requirement listed in APPENDIX A.



Page 24 of 42

### 21.Heavy Metals

	mple No.	D001			
Parameter	Parameter Code	Test Method	Unit	RL	Result
Antimony (Sb)	Antimony	US EPA 6020a	mg/L	0.001	0.095
Chromium (Cr, total)	Chromium Total	US EPA 6020a	mg/L	0.001	0.009
Cobalt (Co)	Cobalt	US EPA 6020a	mg/L	0.001	< RL
Copper (Cu)	Copper	US EPA 6020a	mg/L	0.001	0.019
Nickel (Ni)	Nickel	US EPA 6020a	mg/L	0.001	0.003
Silver (Ag)	Silver	US EPA 6020a	mg/L	0.001	< RL
Zinc (Zn)	Zinc	US EPA 6020a	mg/L	0.001	0.079
Arsenic (As)	Arsenic	US EPA 6020a	mg/L	0.001	< RL
Cadmium (Cd)	Cadmium	US EPA 6020a	mg/L	0.001	< RL
Chromium (Cr VI)	Chromium VI	GB 7467	mg/L	0.001	< RL
Lead (Pb)	Lead	US EPA 6020a	mg/L	0.001	0.017
Mercury (Hg)	Mercury	US EPA 6020a	mg/L	0.001	< RL
Conclusion					Fullfill
					Foundational

Abbreviation: < =less than

RL =reporting limit

mg/L = milligram per liter

mg/kg = milligram per kilogram

### Remark:

The limits according to ZDHC limit (Table 1B and Table 3 of ZDHC Wastewater Guidelines Version 1.1 issued in July 2019):

Boromotor	ZDHC Limit (mg/L)			ZDHC Limit (mg/kg)
Farameter	Foundational	Progressive	Aspirational	Sludge
Antimony (Sb)	0.1	0.05	0.01	NA
Chromium (Cr, total)	0.2	0.1	0.05	NA
Cobalt (Co)	0.05	0.02	0.01	NA
Copper (Cu)	1	0.5	0.25	NA
Nickel (Ni)	0.2	0.1	0.05	NA
Silver (Ag)	0.1	0.05	0.005	NA
Zinc (Zn)	5.0	1.0	0.5	NA
Arsenic (As)	0.05	0.01	0.005	2
Cadmium (Cd)	0.1	0.05	0.01	2
Chromium (Cr VI)	0.05	0.005	0.001	2
Lead (Pb)	0.1	0.05	0.01	2
Mercury (Hg)	0.01	0.005	0.001	0.2

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Page 25 of 42

## 22.Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): Including All Isomers

					Sample No.	D001
Parameter	Parameter	Test Method	Unit	RL	ZDHC Limit	Result
	Code					
Nonylphenol (NP), mixed	104-40-5	ISO 18857-2	µg/L	5	5	< RL
isomers	25154-52-3					
	11066-49-2					
	84852-15-3					
Octylphenol (OP), mixed	140-66-9	ISO 18857-2	µg/L	5	5	< RL
isomers	1806-26-4					
	27193-28-8					
Nonylphenol ethoxylates	9016-45-9	ISO 18254-1,	µg/L	5	5	< RL
(NPEO)	26027-38-3	ASTM D7065				
	37205-87-1					
	68412-54-4					
	127087-87-0					
Octylphenol ethoxylates (OPEO)	9002-93-1	ISO 18254-1,	µg/L	5	5	< RL
	9036-19-5	ASTM D7065				
	68987-90-6					
Conclusion						Comply

Abbreviation: < =less than RL =reporting limit µg/L = microgram per liter mg/kg = milligram per kilogram



Page 26 of 42

## 23. Chlorobenzenes and Chlorotoluenes

					Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
Monochlorobenzene	108-90-7	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
1,2-Dichlorobenzene	95-50-1	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
1,3-Dichlorobenzene	541-73-1	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
1,4-Dichlorobenzene	106-46-7	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
1,2,3-Trichlorobenzene	87-61-6	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
1,2,4-Trichlorobenzene	120-82-1	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
1,3,5-Trichlorobenzene	108-70-3	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
1,2,3,4-Tetrachlorobenzene	634-66-2	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
1,2,3,5-Tetrachlorobenzene	634-90-2	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
1,2,4,5-Tetrachlorobenzene	95-94-3	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
Pentachlorobenzene	608-93-5	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
Hexachlorobenzene	118-74-1	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
2-Chlorotoluene	95-49-8	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
3-Chlorotoluene	108-41-8	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
4-Chlorotoluene	106-43-4	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
2,3-Dichlorotoluene	32768-54-0	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
2,4-Dichlorotoluene	95-73-8	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
2,5-Dichlorotoluene	19398-61-9	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
2,6-Dichlorotoluene	118-69-4	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
3,4-Dichlorotoluene	95-75-0	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
3,5-Dichlorotoluene	25186-47-4	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
2,3,4-Trichlorotoluene	7359-72-0	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
2,3,6-Trichlorotoluene	2077-46-5	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
2,4,5-Trichlorotoluene	6639-30-1	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
2,4,6-Trichlorotoluene	23749-65-7	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
3,4,5-Trichlorotoluene	21472-86-6	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
2,3,4,5-Tetrachlorotoluene	76057-12-0	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
2,3,5,6-Tetrachlorotoluene	29733-70-8	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
2,3,4,6-Tetrachlorotoluene	875-40-1	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
Pentachlorotoluene	877-11-2	US EPA 8260B, 8070D	µg/L	0.2	0.2	< RL
Conclusion						Comply

Abbreviation: < =less than



Page 27 of 42

## 24.Chlorophenols

					Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
2-Chlorophenol	95-57-8	ISO 14154	µg/L	0.5	0.5	< RL
3-chlorophenol	108-43-0	ISO 14154	µg/L	0.5	0.5	< RL
4-chlorophenol	106-48-9	ISO 14154	µg/L	0.5	0.5	< RL
2,3-Dichlorophenol	576-24-9	ISO 14154	µg/L	0.5	0.5	< RL
2,4-Dichlorophenol	120-83-2	ISO 14154	µg/L	0.5	0.5	< RL
2,5-Dichlorophenol	583-78-8	ISO 14154	µg/L	0.5	0.5	< RL
2,6-Dichlorophenol	87-65-0	ISO 14154	µg/L	0.5	0.5	< RL
3,4-Dichlorophenol	95-77-2	ISO 14154	µg/L	0.5	0.5	< RL
3,5- Dichlorophenol	591-35-5	ISO 14154	µg/L	0.5	0.5	< RL
2,3,4-Trichlorophenol	15950-66-0	ISO 14154	µg/L	0.5	0.5	< RL
2,3,5-Trichlorophenol	933-78-8	ISO 14154	µg/L	0.5	0.5	< RL
2,3,6-Trichlorophenol	933-75-5	ISO 14154	µg/L	0.5	0.5	< RL
2,4,5-Trichlorophenol	95-95-4	ISO 14154	µg/L	0.5	0.5	< RL
2,4,6-Trichlorophenol	88-06-2	ISO 14154	µg/L	0.5	0.5	< RL
3,4,5-Trichlorophenol	609-19-8	ISO 14154	µg/L	0.5	0.5	< RL
2,3,4,5-Tetrachlorophenol	4901-51-3	ISO 14154	µg/L	0.5	0.5	< RL
2,3,4,6-Tetrachlorophenol	58-90-2	ISO 14154	µg/L	0.5	0.5	< RL
2,3,5,6-Tetrachlorophenol	935-95-5	ISO 14154	µg/L	0.5	0.5	< RL
Pentachlorophenol	87-86-5	ISO 14154	µg/L	0.5	0.5	< RL
Conclusion				•		Comply

Abbreviation: < =less than RL =reporting limit µg/L = microgram per liter mg/kg = milligram per kilogram



Page 28 of 42

## 25.Dyes - Azo (Forming Restricted Amines)

					Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
4,4'-methylene-bis-(2- chloroaniline)	101-14-4	ISO 14362-1, 14362-3	µg/L	0.1	0.1	< RL
4,4'-diaminodiphenylmethane	101-77-9	ISO 14362-1, 14362-3	µg/L	0.1	0.1	< RL
4,4'-oxydianiline	101-80-4	ISO 14362-1, 14362-3	µg/L	0.1	0.1	< RL
4-chloroaniline	106-47-8	ISO 14362-1, 14362-3	µg/L	0.1	0.1	< RL
3,3'-Dimethoxybenzidine	119-90-4	ISO 14362-1, 14362-3	µg/L	0.1	0.1	< RL
3,3'-Dimethylbenzidine	119-93-7	ISO 14362-1, 14362-3	µg/L	0.1	0.1	< RL
6-Methoxy-m-toluidine	120-71-8	ISO 14362-1, 14362-3	µg/L	0.1	0.1	< RL
2,4,5-trimethylaniline	137-17-7	ISO 14362-1, 14362-3	µg/L	0.1	0.1	< RL
4,4'-Thiodianiline	139-65-1	ISO 14362-1, 14362-3	µg/L	0.1	0.1	< RL
4-aminoazobenzene	60-09-03	ISO 14362-1, 14362-3	µg/L	0.1	0.1	< RL
4-methoxy-m-phenylenediamine	615-05-4	ISO 14362-1, 14362-3	µg/L	0.1	0.1	< RL
4,4'-Methylenedi-o-toluidine	838-88-0	ISO 14362-1, 14362-3	µg/L	0.1	0.1	< RL
2,6-xylidine	87-62-7	ISO 14362-1, 14362-3	µg/L	0.1	0.1	< RL
o-anisidine	90-04-0	ISO 14362-1, 14362-3	µg/L	0.1	0.1	< RL
2-naphthylamine	91-59-8	ISO 14362-1, 14362-3	µg/L	0.1	0.1	< RL
3,3'-Dichlorobenzidine	91-94-1	ISO 14362-1, 14362-3	µg/L	0.1	0.1	< RL
4-Aminobiphenyl	92-67-1	ISO 14362-1, 14362-3	µg/L	0.1	0.1	< RL
benzidine	92-87-5	ISO 14362-1, 14362-3	µg/L	0.1	0.1	< RL
o-toluidine	95-53-4	ISO 14362-1, 14362-3	µg/L	0.1	0.1	< RL
2,4-xylidine	95-68-1	ISO 14362-1, 14362-3	µg/L	0.1	0.1	< RL
4-chloro-o-toluidine	95-69-2	ISO 14362-1, 14362-3	µg/L	0.1	0.1	< RL
4-methyl-m-phenylenediamine	95-80-7	ISO 14362-1, 14362-3	µg/L	0.1	0.1	< RL
o-Aminoazotoluene	97-56-3	ISO 14362-1, 14362-3	µg/L	0.1	0.1	< RL
5-nitro-o-toluidine	99-55-8	ISO 14362-1, 14362-3	µg/L	0.1	0.1	< RL
Conclusion	I		I			Comply



Page 29 of 42

Abbreviation: < =less than



Page 30 of 42

## 26.Dyes - Carcinogenic or Equivalent Concern

					Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
C.I. Direct Black 38	1937-37-7	ISO 16373	µg/L	500	500	< RL
C.I. Direct Blue 6	2602-46-2	ISO 16373	µg/L	500	500	< RL
C.I. Acid Red 26	3761-53-3	ISO 16373	µg/L	500	500	< RL
C.I. Basic Red 9	569-61-9	ISO 16373	µg/L	500	500	< RL
C.I. Direct Red 28	573-58-0	ISO 16373	µg/L	500	500	< RL
C.I. Basic Violet 14	632-99-5	ISO 16373	µg/L	500	500	< RL
C.I. Disperse Blue 1	2475-45-8	ISO 16373	µg/L	500	500	< RL
C.I. Disperse Blue 3	2475-46-9	ISO 16373	µg/L	500	500	< RL
C.I. Basic Blue 26 (with Michler's Ketone > 0.1%)	2580-56-5	ISO 16373	µg/L	500	500	< RL
C.I Basic Green 4 (malachite green chloride)	569-64-2	ISO 16373	µg/L	500	500	< RL
C.I Basic Green 4 (malachite green oxalate)	2437-29-8	ISO 16373	µg/L	500	500	< RL
C.I Basic Green 4 (malachite green)	10309-95-2	ISO 16373	µg/L	500	500	< RL
Disperse Orange 11	82-28-0	ISO 16373	µg/L	500	500	< RL
Conclusion		·	•			Comply

Abbreviation: < =less than

RL =reporting limit  $\mu g/L$  = microgram per liter

mg/kg = milligram per kilogram



Page 31 of 42

## 27.Dyes - Disperse (Sensitizing)

					Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
Disperse Yellow 1	119-15-3	ISO 16373	µg/L	50	50	< RL
Disperse Blue 102	12222-97-8	ISO 16373	µg/L	50	50	< RL
Disperse Blue 106	12223-01-7	ISO 16373	µg/L	50	50	< RL
Disperse Yellow 39	12236-29-2	ISO 16373	µg/L	50	50	< RL
Disperse Orange 37/59/76	13301-61-6	ISO 16373	µg/L	50	50	< RL
Disperse Brown 1	23355-64-8	ISO 16373	µg/L	50	50	< RL
Disperse Orange 1	2581-69-3	ISO 16373	µg/L	50	50	< RL
Disperse Yellow 3	2832-40-8	ISO 16373	µg/L	50	50	< RL
Disperse Red 11	2872-48-2	ISO 16373	µg/L	50	50	< RL
Disperse Red 1	2872-52-8	ISO 16373	µg/L	50	50	< RL
Disperse Red 17	3179-89-3	ISO 16373	µg/L	50	50	< RL
Disperse Blue 7	3179-90-6	ISO 16373	µg/L	50	50	< RL
Disperse Blue 26	3860-63-7	ISO 16373	µg/L	50	50	< RL
Disperse Yellow 49	54824-37-2	ISO 16373	µg/L	50	50	< RL
Disperse Blue 35	12222-75-2	ISO 16373	µg/L	50	50	< RL
Disperse Blue 124	61951-51-7	ISO 16373	µg/L	50	50	< RL
Disperse Yellow 9	6373-73-5	ISO 16373	µg/L	50	50	< RL
Disperse Orange 3	730-40-5	ISO 16373	µg/L	50	50	< RL
Disperse Blue 35	56524-77-7	ISO 16373	µg/L	50	50	< RL
Conclusion	·					Comply

Abbreviation: < =less than RL =reporting limit µg/L = microgram per liter mg/kg = milligram per kilogram



Page 32 of 42

### 28.Flame Retardants

					Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
Tris-(2-chloro-ethyl)- phosphate (TCEP)	115-96-8	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	µg/L	5	5	< RL
Decabromodiphenyl ether (DecaBDE)	1163-19-5	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	µg/L	5	5	< RL
Tri-(2,3-di-bromo-propyl)- phosphate (TRIS)	126-72-7	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	µg/L	5	5	< RL
Pentabromodiphenyl ether (PentaBDE)	32534-81-9	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	µg/L	5	5	< RL
Octabromodiphenyl ether (OctaBDE)	32536-52-0	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	µg/L	5	5	< RL
Bis-(2,3-di-bromo- propyl)-phosphate (BIS)	5412-25-9	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	µg/L	5	5	< RL
Tris(1-aziridinyl) phosphine oxide) (TEPA)	545-55-1	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	µg/L	5	5	< RL
Polybromobiphenyls (PBB)	59536-65-1	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	µg/L	5	5	< RL
Tetra-bromo-bisphenol-A (TBBPA)	79-94-7	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	µg/L	5	5	< RL
Hexabromocyclododeca ne(HBCDD)	3194-55-6	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	µg/L	5	5	< RL
2,2-bis(bromomethyl)-1,3 -propanediol (BBMP)	3296-90-0	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	µg/L	5	5	< RL
Tris-(1,3-di-chloro-iso- propyl)-phosphate (TDCP)	13674-87-8	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	µg/L	5	5	< RL
Short chain chlorinated paraffins,C10-C13 (SCCP)	85535-84-8	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	µg/L	5	5	< RL
Conclusion						Comply

**Abbreviation:** < =less than

 $\begin{array}{l} RL = reporting \ limit \\ \mu g/L = microgram \ per \ liter \\ mg/kg = milligram \ per \ kilogram \end{array}$ 



Page 33 of 42

## 29.Glycols

					Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
Bis(2-methylethyl)ether	111-96-6	US EPA 8270	µg/L	50	50	< RL
2-Ethoxyethanol	110-80-5	US EPA 8270	µg/L	50	50	< RL
2-Ethyoxyethyl acetate	111-15-9	US EPA 8270	µg/L	50	50	< RL
Ethylene glycol dimethyl ether	110-71-4	US EPA 8270	µg/L	50	50	< RL
2-Methoxyethanol	109-86-4	US EPA 8270	µg/L	50	50	< RL
2-Methoxyethyl acetate	110-49-6	US EPA 8270	µg/L	50	50	< RL
2-Methoxypropyl acetate	70657-70-4	US EPA 8270	µg/L	50	50	< RL
Triethylene glycol dimethyl ether	112-49-2	US EPA 8270	µg/L	50	50	< RL
Conclusion						Comply

Abbreviation: < =less than



Page 34 of 42

## **30.Halogenated Solvents**

					Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
1,2-dichloroethane	107-06-2	US EPA 8260B	µg/L	1	1	< RL
Methylene chloride	75-09-2	US EPA 8260B	µg/L	1	1	< RL
Trichloroethylene	79-01-6	US EPA 8260B	µg/L	1	1	< RL
Tetrachloroethylene	127-18-4	US EPA 8260B	µg/L	1	1	< RL
Conclusion						Comply

**Abbreviation:** < =less than



Page 35 of 42

## 31.Organotin Compounds

					Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
Mono-, di-and tri-methyltin derivatives	Multiple	ISO 17353	µg/L	0.01	0.01	< RL
Mono-,di-and tri-butyltin derivatives	Multiple	ISO 17353	µg/L	0.01	0.01	< RL
Mono-,di-and tri-phenyltin derivatives	Multiple	ISO 17353	µg/L	0.01	0.01	< RL
Mono-, di-and tri-octyltin derivatives	Multiple	ISO 17353	µg/L	0.01	0.01	< RL
Conclusion	•		•			Comply

**Abbreviation:** < =less than



Page 36 of 42

## 32.Perfluorinated and Polyfluorinated Chemicals (PFCs)

					Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
PFOS	1763-23-1	DIN 38407-42 (modified)	µg/L	0.01	0.01	< RL
PFOA	335-67-1	DIN 38407-42 (modified)	µg/L	0.01	0.01	< RL
PFBS	375-73-5 29420-49-3 29420-43-3	DIN 38407-42 (modified)	µg/L	0.01	0.01	< RL
PFHxA	307-24-4	DIN 38407-42 (modified)	µg/L	0.01	0.01	< RL
8:2 FTOH	678-39-7	DIN 38407-42 (modified)	µg/L	1	1	< RL
6:2 FTOH	647-42-7	DIN 38407-42 (modified)	µg/L	1	1	< RL
Conclusion				•		Comply

Abbreviation: < =less than



Page 37 of 42

## 33.Phthalates - Including all other esters of phthalic acid

					Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
Di(ethylhexyl) phthalate (DEHP)	117-81-7	US EPA 8270D, ISO 18856	µg/L	10	10	< RL
Bis(2-methoxyethyl) phthalate(DMEP)	117-82-8	US EPA 8270D, ISO 18856	µg/L	10	10	< RL
Di-n-octyl phthalate (DNOP)	117-84-0	US EPA 8270D, ISO 18856	µg/L	10	10	< RL
Di-iso-decyl phthalate (DIDP)	26761-40-0	US EPA 8270D, ISO 18856	µg/L	10	10	< RL
Di-Isononyl Phthalate (DINP)	28553-12-0	US EPA 8270D, ISO 18856	µg/L	10	10	< RL
Di-n-hexyl phthalate (DnHP)	84-75-3	US EPA 8270D, ISO 18856	µg/L	10	10	< RL
Di-n-butyl phthalate (DBP)	84-74-2	US EPA 8270D, ISO 18856	µg/L	10	10	< RL
Butyl benzyl phthalate (BBP)	85-68-7	US EPA 8270D, ISO 18856	µg/L	10	10	< RL
Dinonyl phthalate (DNP)	84-76-4	US EPA 8270D, ISO 18856	µg/L	10	10	< RL
Diethyl phthalate (DEP)	84-66-2	US EPA 8270D, ISO 18856	µg/L	10	10	< RL
Di-n-propyl phthalate (DPRP)	131-16-8	US EPA 8270D, ISO 18856	µg/L	10	10	< RL
Di-isobutyl phthalate (DIBP)	84-69-5	US EPA 8270D, ISO 18856	µg/L	10	10	< RL
Di-cyclohexyl phthalate (DCHP)	84-61-7	US EPA 8270D, ISO 18856	µg/L	10	10	< RL
Di-iso-octyl phthalate (DIOP)	27554-26-3	US EPA 8270D, ISO 18856	µg/L	10	10	< RL
1,2-benzenedicarboxylic acid, di-C7-11-branched and linearalkyl esters (DHNUP)	68515-42-4	US EPA 8270D, ISO 18856	µg/L	10	10	< RL
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	US EPA 8270D, ISO 18856	µg/L	10	10	< RL
Conclusion						Comply

Abbreviation: < =less than RL =reporting limit µg/L = microgram per liter mg/kg = milligram per kilogram



Page 38 of 42

## 34.Polycyclic Aromatic Hydrocarbons (PAHs)

					Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
Benzo(a)pyrene	50-32-8	US EPA 8270	µg/L	1	1	< RL
Anthracene	120-12-7	US EPA 8270	µg/L	1	1	< RL
Pyrene	129-00-0	US EPA 8270	µg/L	1	1	< RL
Benzo[ghi]perylene	191-24-2	US EPA 8270	µg/L	1	1	< RL
Benzo(e)pyrene	192-97-2	US EPA 8270	µg/L	1	1	< RL
Indeno[1,2,3-cd]pyrene	193-39-5	US EPA 8270	µg/L	1	1	< RL
Benzo(j)fluoranthene	205-82-3	US EPA 8270	µg/L	1	1	< RL
Benzo[b]fluoranthene	205-99-2	US EPA 8270	µg/L	1	1	< RL
Fluoranthene	206-44-0	US EPA 8270	µg/L	1	1	< RL
Benzo[k]fluoranthene	207-08-9	US EPA 8270	µg/L	1	1	< RL
Acenaphthylene	208-96-8	US EPA 8270	µg/L	1	1	< RL
Chrysene	218-01-9	US EPA 8270	µg/L	1	1	< RL
Dibenz(a,h)anthracene	53-70-3	US EPA 8270	µg/L	1	1	< RL
Benzo[a]anthracene	56-55-3	US EPA 8270	µg/L	1	1	< RL
Acenaphthene	83-32-9	US EPA 8270	µg/L	1	1	< RL
Phenanthrene	85-01-8	US EPA 8270	µg/L	1	1	< RL
Fluorene	86-73-7	US EPA 8270	µg/L	1	1	< RL
Naphthalene	91-20-3	US EPA 8270	µg/L	1	1	< RL
Conclusion	•			•		Comply

Abbreviation: < =less than RL =reporting limit µg/L = microgram per liter mg/kg = milligram per kilogram



Page 39 of 42

## **35.Volatile Organic Compounds (VOC)**

					Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
Benzene	71-43-2	ISO 11423-1	µg/L	1	1	< RL
Xylene	1330-20-7	ISO 11423-1	µg/L	1	1	< RL
o-cresol	95-48-7	ISO 11423-1	µg/L	1	1	< RL
p-cresol	106-44-5	ISO 11423-1	µg/L	1	1	< RL
m-cresol	108-39-4	ISO 11423-1	µg/L	1	1	< RL
Conclusion						Comply

**Abbreviation:** < =less than



Page 40 of 42

## **Sampling Point Indication (Map)**

GPS Map

Incoming Water: 120.446542, 30.192804 Discharged Wastewater: 120.451645, 30.186200





Page 41 of 42

## **Sampling Photo**



Factory Gate



Other Factory Photo



**Discharged Wastewater** 



Incoming Water



the solution of the second

## Test Report No.: 244331249a 001

Page 42 of 42

## APPENDIX A Regulatory Requirement

14. 21

100 A.M. 100

表1 现有企业水污染物排放浓度限值及单位产品基准排水量

197.13	100 Mb 44a 100 LT	限	值	Sec. 10. Alastic etc. 10: 65: Do 101	
11.33	75宋初川日	直接排放	间接排放	万采初排取祖控位直	
1	pH 值	6~9	6~9		
2	化学需氧量(COD <sub>Cr</sub> )	100	200		
3	五日生化需氧量	25	50		
4	悬浮物	60	100		
5	色度	70	80		
6	氨氮	12 20 <sup>(1)</sup>	20 30 <sup>(1)</sup>		
7         总氮           8         总磷	20 35 (1)	30 50 (1)	一企业废水总排放口		
	总磷	1.0	1.5		
9	二氧化氯	0.5	0.5		
10	可吸附有机卤素 (AOX)	15	15		
11	硫化物	1.0	1.0		
12	苯胺类	1.0	1.0		
13	六价铬	0	5	车间或生产设施废水排放口	
单位产品	棉、麻、化纤及混纺机织物	17	75		
基准排水	真丝绸机织物 (含练白)	35	50		
量 (m <sup>3</sup> /t	纱线、针织物	110		一 排水量计量位置与污染物排 並改換た即相同	
标准品)	精榄毛织物	50	50	取配控证 配相问	
2)	粗梳毛织物	粗榄毛织物 640		7	

- END -

#### General Terms and Conditions of Business of TÜV Rheinland in Greater China

#### Scope

These General Terms and Conditions of Business of TÜV Rheinland in Greater China (\*GTCB\*) is made between the client and one or more member entities of TÜV Rheinland foreader China as applicable as applicable as applicable as applicable as the case may be ("TÜV Rheinland"). The Greater China hereof refers to Mainland China, Hong Kong and Taiwan. The client hereof includes : 1.1

a natural person capable to form legally binding contracts under the applicable laws who concludes the contract not for the purpose of a daily use;

the incorporated or unincorporated entity duly organized, validly existing and capable to form legally binding contracts under the applicable law.

- 1.2 The following terms and conditions apply to agreed services including consultancy services, information, deliveries and similar services as well as ancillary services and other second any obligations provided within the scope of contract performance.
- Any standard terms and conditions of the client of any nature shall not apply and sha hereby be expressly excluded. No standard contractual terms and conditions of the clien shall form part of the contract even if TÜV Rheinland does not explicitly object to them.
- In the context of an ongoing business relationship with the client, this GTCB shall also apply to future contracts with the client without TÜV Rheinland having to refer to them separately in each indi

#### 2. Quotations

Unless otherwise agreed, all quotations submitted by  $T\bar{U}V$  Rheinland can be changed by  $T\bar{U}V$  Rheinland without notice prior to its acceptance and confirmation by the other party.

#### Coming into effect and duration of contracts

- Summary intro enset, and ourration of contracts The contract shall come into defice for the agreed terms upon the quotation letter of TÜV Rheinland 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. If the client instructs TÜV Rheinland without receiving a quotation from TÜV Rheinland (quotation). TÜV Rheinland is, in its sod discription, entitide 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.
- 3.3 If the contract provides for an extension of the contract term, the contract term will be extended by the term provided for in the contract unless terminated in writing by either party with a six-week notice prior to the end of the contractual term.

#### Scope of services

- The scope and type of the services to be provided by TÜV Rheinland shall be specified in the contractually agreed service scope of TÜV Rheinland by both parties. If no such separate service scope of TÜV Rheinland exists, then the written confirmation of order by TÜV Rheinland shall be decisive for the service to be provided.
- 4.2 The agreed services shall be performed in compliance with the regulations in force at the time the contract is entered into.
- TÜV Rheinland 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. 4.3
- On execution of the work there shall be no simultaneous assumption of any guarar the correctness (proper quality) and working order of either tested or examined parts the installation as a whole and its upstream and/or downstream processes, organisa use and application in accordance with regulations, nor of the systems on white installation is based. In particular, TÜV Nheinland shall assume no responsibility if construction, selection of materials and assembly of installations examined, nor for use and application in accordance with regulations, unless these questions are exp covered by the contract. ity for the
- 4.5 In the case of inspection work, TÜV Rheinland 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.
- 4.6 If mandatory legal regulations and standards or official requirements for the agreed service scope change after conclusion of the contract, with a written notice to the client, TUV Rheinland shall be entitled to additional remuneration for resulting additional expenses.
- 4.7The services to be provided by TÜV Rheinland under the contract are agreed exclusively with the client. A contract of third parties with the services of TÜV Rheinland, as well as making available of and justifying confidence in the work results (test reports, test results, exper reports, etc.) is not part of the agreed services. This also applies if the client passes or work results in full or in extracts to third parties in accordance with clause 11.4.

#### Performance periods/dates

- The contractually agreed periods/dates of performance are based on estimates of involved which are prepared in line with the details provided by the client. They be binding if being confirmed as binding by TÜV Rheinland in writing.
- If binding periods of performance have been agreed, these periods shall not commence until the client has submitted all required documents to TÜV Rheinland.
- 5.3 Articles 5.1 and 5.2 also apply, even without express approval by the client, to all extensions of agreed periods/dates of performance not caused by TÜV Rheinland.
- 5.4TÜV Rheinland is not responsible for a delay in performance, in particular if the client has not fulfilled his duties to cooperate in accordance with clause 6.1 or has not done so in time and, in particular, has not provided TÜV Rheinland with all documents and information required for the performance of the service as specified in the contract.
- 5.5If the performance of TÜV Rheinland is delayed due to unforeseeable circumstances such as force majeure, strikes, business disruptions, governmental regulations, transport obstacles, etc., TÜV Rheinland is entitled to postpore performance for a reasonable period of time which corresponds at least to the duration of the hindrance plus any time period which may be required to resume performance.

#### 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.
- 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, stafardards, safety regulations and accident prevention instructions. And the client represents and warrants that:

#### a) it has required statutory qualifications:

- b) the product, service or management system to be certified complies with applicable laws and regulations; and
- c) it doesn't have any illegal and dishonest behaviours or is not included in the list of Enterprises with Serious Illegal and Dishonest Acts of People's Republic of China. If the client breaches the aforesaid representations and warranties, TÜV Rheinland is entitled to i) immediately terminate the contract/order without prior notice; and ii) withdraw the issued testing report/centificates if any.
- The client shall be any additional cost incurred on account of work having to be redone or being delayed as a result of late, incorrect or incomplete information provided by or lack of proper cooperation from the client. Even where a fixed or maximum price is agreed, TÜV Rheinland shall be entitled to charge extra fees for such additional expense. 6.3

#### Prices

- If the scope of performance is not laid down in writing when the order is placed, invoicing shall be based on costs actually incurred. If no price is agreed in writing, invoicing shall be made in accordance with the price list of TÜV Rheinland valid at the time of performance. 7.1 If the scope of performance is not laid do
- 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 or equivalent value in local currency, TÜV Rheinland may demand payments on account or in instalments.

May 2019

- 8.1 All invoice amounts shall be due for payment without deduction on receipt of the invoice. No discounts and rebates shall be granted.
- Payments shall be made to the bank account of TÜV Rheinland as indicated on the invoice, stating the invoice and client numbers.
- 8.3 In cases of default of payment, TÜV Rheinland shall be entitled to claim default interest at the applicable short term loan interest rate publicly announced by a reputable commercial bank in the country where TÜV Rheinland is located. At the same time, TÜV Rheinland reserves the right to claim further damages.
- Should the client default in payment of the invoice despite being granted a reasonable grace period, TÜV Rheinland shall be entitled to cancel the contract, withdraw the certificate, claim damages for non-performance and refuse to continue performance of the 8.4 certificate, cla
- 85 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 shall be submitted in writing within two w of receipt of the invoice.
- 8.7 TÜV Rheinland shall be entitled to demand appropriate advance payments
- 8.7 TUD V knemand shall be entitled to demand appropriate advance payments.
  8.8 TUD Knemand shall be entitled to raise its else at the beginning of a monti if overheads and/or purchase costs have increased. In this case, TUD Kneinland 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 transits under 3% per contractual year, the client shall not have the right to terminate the contract. If the rise in fees exceeds 5% per contractual year, the client shall not have the right to terminate the contract. If the rise in fees exceeds 5% per contractual year, the client shall not have been agreed upon by the time of the expiry of the notice period.
- 8.9 Only legally established and undisputed claims may be offset against claims by TÜV Rheinland.

#### Acceptance of work

- 9.1 Any part of the work result ordered which is complete in itself may be presented by TÜV Rheinland for acceptance as an instalment. The client shall be obliged to accept it immediately.
- 9.2 If acceptance is required or contractually agreed in an individual case, this shall be deemed to have taken place two (2) weeks after completion and handover of the work, unless the client refuses acceptance within this period stating at least one fundmental breach of contract by TÜV Rheinland.
- 9.3 The client is not entitled to refuse acceptance due to insignificant breach of contract by TÜV Rheinland.
- 9.4 If acceptance is excluded according to the nature of the work performance of TÜV Rheinland, the completion of the work shall take its place.
- runemiano, the completion of the work shall take its place.
  9.5 If the client was unable to make use of the time windows provided for within the scope of outflication procedure for auditing/performance by TUV Reineliand therefore to be withfrawn (e.g. performance of surveillance audite). TUV Reineliand entitled to immediately charge a lump-sum compensation of 10% of the order amount, compensation for expenses. The client reserves the right to prove that the TUV Rheinland has incurred no damage whatsoever or only a considerably lower damage than the abo lump sum.
- 9.6 Insofar as the client has undertaken in the contract to accept services, TÜV Rheinland shall also be entilled to charge lump-sum damages in the amount of 10% of the order amount as compensation for expenses if the service is not called within one year after the order has been placed. The client reserves the right to prove that the TÜV Rheinland has incurred no damage whatsoever on only a considerably lower damage than the above mentioned lump.

#### 10. Confidentiality

- 10.2 The disclosing party shall mark all confidential information disclosed in written form as confidential before passing it onto the receiving party. The same applies to confidential information it ackicosed orally, the receiving party shall be appropriately information it ackicosed orally, the receiving party shall be appropriately informed in advance and the disclosing party shall confirm in writing the confidential numer of the information within flwe working days of oral disclosed. Where the disclosing party shall confirm in the stipulated period, the receiving party shall not take any confidentially obligations here under towards such information.
- 10.3 All confidential information which the disclosing party transmits or otherwise discloses to the receiving party and which is created during performance of work by TÜV Rheinland: a)may only be used by the receiving party for the purposes of performing the contract, unless expressly otherwise agreed in writing by 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 TUV Rheinland is requi to pass on confidential information, inspection reports or documentation to the governmen authorities, judicial court, accreditation bodies 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 party uses to protect its own confidential information, but never with a lesser level of confidentiality than that which is reasonably required.

- 10.4 The receiving party may 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 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 confidentiality clause by the receiving party; 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, sha not be deemed to constitute "confidential information" as defined in this confidentiality clause
- 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 copie party hereby agrees to immediately (i) return all confidential information, including all copies, to the disciolary party and/or (ii) or neguest by the disciolary party, to destroy all confidential information, including all copies, and confirm the destruction of this confidential information the discolary 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 the contract. This does not sected to include reports and confiltrates prepared for the client solely for the purpose of fulfilling the obligations under the contract, which shall remain with the client. However, TUV Heineliand is emitted 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 concretness of its results and for general documentation purposes required by laws, regulations and the requirements of working procedures of TUV Rheinland.
- 10.7 From the start of the contract and for a period of three years after termination or expiry of the 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 and rights of use, publications

- 11.1 TÜV Rheinland shall retain all exclusive copyrights in the reports, expert reports/opinions, reports/results, results, calculations, presentations etc. prepared by TÜV Rheinland, uni otherwise agreed by the parties in a separate agreement. As the owner of the copyrig TÜV Rheinland is free to grant others the right to use the work results for individual or types of use (right of use?)
- 11.2 The client receives a simple, unlimited, non-transferable, non-sublicensable right of use to the contents of the work results produced within the scope of the contract, unless otherwise agreed by the parties in a separate agreement. The client may only use such reports ophitors, lost reports/results, results calculations, presentations etc. prepared within the scope of the contract to the contract tank agreed purpose.
- 11.3 The transfer of right of use of the generated work results regulated in clause 11.2. of the GTCB is subject to full payment of the remuneration agreed in favour of TÜV Rheinland.
- 11.4 The client may use work results only complete and unshortened. The client may only pass on the work results in full unless TÜV Rheinland has given its prior written consent to the partial passing on of work results
- 11.5 Any publication or duplication of the work results for advertising purposes or any further u the work results beyond the scope regulaed in clause 11.2 needs the prior written approx TUV Rheinland in each individual case.
- 11.6 TUV Rheinland may revoke a once given approval according to clause 11.5 at any time without stating reasons. In this case, the client is obliged to stop the transfer of the work results immediately at his own expense and, as far as possible, to withdraw publications.
- The consent of TÜV Rheinland to publication or duplication of the work results does not entitle the client to use the corporate logo, corporate design or test/certification mark of TÜV

#### 12 Liability of TÜV Rheinland

12.1 Interspective of the legal basis, to the fullest extent permitted by applicable law, in the event of a breach of contractual obligations or tort, the liability of TUV Rheinland for all damages, losses and reimbursement of expenses caused by TUV Rheinland, is legal representatives and/or employees shall be limited to: (i) in the case of a contract with a fixed overall fee, three times the overall fee for the entire contract; (ii) in the case of a contract expressly charged on a time and material basis, a maximum of 20,000 Euror equivalent amount in local currency; and (iv) in the case of a framework agreement that provides for the possibility of placing individual

orders, three times of the fee for the individual order under which the damages or losses have occurred. Notwithstanding the above, in the event that the total and accumulated liability calculated according to the foregoing provisions exceeds 2.5 Million Euro or equiva amount in local currency, the total and accumulated liability of TUV Rheinland shall be limited to and shall not exceed the said 2.5 Million Euro or equivalent amount in

- 12.2 The limitation of liability according to article 12.1 above shall not apply to damages losses caused by malice, intent or gross negligence on the part of TÜV Rheinlan vicarious agents. Such limitation shall not apply to damages for a person's death, p injury or illness.
- 12.3 In cases involving a fundamental breach of contract, TÜV Rheinland will be liable even w minor negligence is involved. For this purpose, a "fundamental breach" is breach of a ma contractual obligation, the performance of which permits the due performance of the cont Any claim for damages for a fundamental breach of contract shall be limited to the amou damages reasonably foreseen as a possible consequence of such breach of contract a time of the breach (reasonably foreseeable damages), unless any of the circumsta described in article 12.2 applies.
- Used the initial shall not be liable for the acts of the personnel made available by the client to support TÜV Rheinland is liable for the acts of the services under the contract, unless such personnel made available is regarded as vicanious agent of TÜV Rheinland. II TÜV Rheinland in TÜV Rheinland the TÜV Rheinland the TÜV Rheinland the TÜV Rheinland the to fere acts of the personnel made available by the client under the foregoing provision, the client shall indemnify TÜV Rheinland tagainst any claims made by third parties arising from or in connection with such personnel's acts.
- 12.5 Unless otherwise contractually agreed in writing, TÜV Rheinland shall only be liable under the contract to the client.
- 12.6 The limitation periods for claims for damages shall be based on statutory provisions
- 12.7 None of the provisions of this article 12 changes the burden of proof to the disadvantage of the client

#### 13. Export control

- 13.1When passing on the services provided by TÜV Rheinland or parts thereof to third parties in Greater China or other regions, the client must comply with the respectively applicable regulations of national and international export control law.
- 13.2The performance of a contract with the client is subject to the proviso that there are no obstacles to performance due to national or international foreign trade legislations or embargos and/or sanctions. In the event of a violation, TUV Rhenihand shall be entitled to terminate the contract with immediate effect and the client shall compensate for the losses incured thered by TUV Rhenihand.

#### 14. Data protection notice

Data protection notice TÜV Rheinland processes personal data of the client for the purpose of fulfiling this contract. In addition, TÜV Rheinland also processes the data for other legal purposes in accordance with the relevant legal basis. The personal data of the client will only be disclosed to other natural or legal persons? If the legal requirements are met. This also applies to transfers to third countries. The personal data will be deleted immediately as soon as a corresponding reason for deletion right of dealet immediately as soon as a corresponding reason for deletion, right of dealetion, right of processing limitates in the right objection, right of data transferability. In addition, persons concerned by the data processing mass the right to revoke their consent at any time with defact for the future, as well as the right nave the right to revoke their consent at any time with defact for the future, as well as the right processor, please refer to the respective data the protection information. Your can contact the Group Data Protection Officer of TÜV Rheinland at at denschutz@de.tuv.com or ty post at the following address: TÜV Rheinland AG, c/o Group Data Protection Officer, Am Grauen Stein, 51105 Cologne, Germany.

#### 15. Test material: transport risk and storage

15.1The risk and costs for freight and transport of documents or test material to and from TÜV Rheinland as well as the costs of necessary disposal measures shall be borne by the client.

- 15.2Any destroyed and otherwise worthless test material will be disposed of by TÜV Rheinland for the client at the expense of the client, unless otherwise agreed.
- 15.3Undamaged test material shall be stored by TÜV Rheinland for four (4) weeks after completion of the test. If a longer storage period is desired, TÜV Rheinland charges an appropriate storage fee.
- 15.4After the expiry of the 4 weeks or any longer period agreed upon, the test material will be disposed of by TÜV Rheinland for the client for a fee in accordance with clause 15.2.

#### 16. Termination of the contract

- 16. Notwithstanding clause 3.3 of the GTCB, TÜV Rheinland and the client are entitled to to 16. It hotwithstanding clause 3.3 of the GTCB, TÜV Rheinland and the client are entitled to to the contract in its entitlety or, in the case of services combined in one contract, aga combined parts of the contract individually and independently of the continuation remaining services with six (6) months' notice to the end of the contractually agreed te , each of the
- 16.2For good causes, TÜV Rheinland may consider giving a written notice to the client to terminate the contract which includes but not limited to the following:
- a) the client does not immediately notify TÜV Rheinland of changes in the conditions within the company which are relevant for certification or signs of such changes;

d) a substantial deterioration of the financial circumstances of the client occurs and as a result the payment claims of TÜV Rheinland under the contract are considerably endangered and TÜV Rheinland cannor reasonably be expected to continue the contractual relationship.

16.3 In the event of termination with written notice to EVUR Pheinland the conduction termination. TWO Pheinland Shall be entitled to a lump-sum claim for damages against the client if the conditions of a claim for damages against the client if the conditions of a claim for damages exist. In this case, the client shall ove 15% of the remuneration to be paid until the end of the fixed contract term as lump-sum compensation. The client reserves the right to prove that there is no damage or a considerably lower damage, TÜV Rheinland reserves the right to prove a considerably higher damage in individual cases.

16.4TÜV Rheinland is also entitled to terminate the contract with written notice if the client has not been able to make use of the time windows for auditing /service provision provided by TÜV Rheinland within the scope of a certification procedure and the certificate therefore has to be withdrawn (for example during the performance of monitoring audits). Clause 16.3 applies

17.1 All amendments and supplements must be in writing in order to be effective. This also applies to amendments and supplements to this clause 17.1.

17.2 Should one or several of the provisions under the contract and/or these terms and conditio be or become ineffective, the contracting parties shall replace the invalid provision with legally valid provision that comes closest to the content of the invalid provision in legal a commercial terms.

17.3 Unless otherwise stipulated in the contract, the governing law of the contract and these terms and conditions shall be chosen following the rules as below:

a)if TÜV Rheinland in question is legally registered and existing in the People's Republic of China, the contracting parties hereby agree that the contract and these terms and conditions shall be governed by the laws of the People's Republic of China.

b)if TÜV Rheinland in question is legally registered and existing in Taiwan, the contracting parties hereby agree that the contract and these terms and conditions shall be governed by the laws of Taiwan.

c)if TÜV Rheinland in question is legally registered and existing in Hong Kong, the contracting parties hereby agree that the contract and these terms and conditions shall be governed by the laws of Hong Kong.

Unless otherwise stipulated in the contract, if no settlement or no agreement in respect of the extension of the negotiation period can be reached within two months of the arising of the dispute, the dispute shall be submitted:

ajin the case of TÜV Rheinland in question being legally registered and existing in the People's Republic of China, to China International Economic and Trade Arbitration Commission (CIETAC) to be settled by arbitration under the Arbitration Rules of CIETAC in force when the arbitration is submitted. The arbitration shall take place in Baijing, Shanghai, Shenzhen or Chongqing as appropriately chosen by the claiming party.

b)in the case of TÜV Rheinland in question being legally registered and existing in Taiwan, to Chinese Arbitration Association Taipel Branch to be arbitrated in accordance with its then

c)in the case of TÜV Rheinland being legally registered and existing in Hong Kong, to Hong Kong International Abhtration Centre (HKIAC) to be settled by arbitration under the HKIAC Administered Abhtration Rules in force when the Notice of Abhtration is submitted in accordance with these rules. The arbitration shall take place in Hong Kong.

The decision of the relevant arbitration tribunal shall be final and binding on both parties. The arbitration fee shall be borne by the losing party.

current Rules of Arbitration. The arbitration shall take place in Taipei.

17.4 Any dispute in connection with the contract and these terms and conditions or the execution thereof shall be settled friendly through negotiations.

17. Partial invalidity, written form, place of jurisdiction and dispute resolution

b) the client misuses the certificate or certification mark or uses it in violation of the contract; c) in the event of several consecutive delays in payment (at least three times);