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Test Report No.: 326034682a 001

HUNAN JIEXIN TEXTILE PRINTING AND DYEING CO., LTD. Client:

No.18 Shangde Road Economic and Technological Devcelopment Zone,

Changde, Hunan, China

Buyer's Name : -

Factory Details

Factory Name Hunan Jiexin Textile Printing and Dyeing Co., Ltd.

Factory Address (with geographical

coordinates)

No.18 Shangde Road Economic and Technological Devcelopment Zone, Changde, Hunan,

On-site FTP

Discharge Type of Wastewater Indirect discharge

Destination of Wastewater Changde Qinglan Water Co., Ltd.

For Indirect discharge

Name of public wastewater treatment

plants(CETP)

Address of public wastewater treatment

plants(CETP)

No.11 Xinbaoyuan Wuyi Village Zhangmugiao Street Economic and Technological

Development Zone, Changde, Hunan, China

Sampling Details

Sampling Date 2024-07-05 Sample Receiving Date 2024-07-08

Testing Period Parameter(s) exceeded maximum

2024-07-08 to 2024-07-12 Yes (pH Value, Fecal Coliform)

Changde Qinglan Water Co., Ltd.

holding time

Sampling Method:

Sample Type	Total Volume	1	2	3	4	5	6	7
Discharged Wastewater	1.2L	10:00	11:00	12:00	13:00	14:00	15:00	16:00
Raw Wastewater	15.2L	10:40	11:40	12:40	13:40	14:40	15:40	16:40
Incoming Water	4.9L	09:30	-	-	-	-	-	-
Sludge	5.5L	11:20	-	-	-	-	-	-

Overall Rating	Discharged Wastewater	Raw Wastewater	Sludge		
Conventional Parameters / Anion / Metals	Fulfill Aspirational Limit	Not Tested	Report Only		
MRSL Parameters	Not Tested	Comply	Report Only		
Legal Compliance	Not Tested	Not Tested	Not Tested		
Specifications	ZDHC Wastewater Guidelines Version 2.1 (November 2022)				

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

2024-07-15 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.

"Decision Rule" document announced in our website (https://www.tuv.com/landingpage/en/qm-gcn/) describes the statement of conformity and its rule of enforcement for test results are applicable throughout this test report.

TÜV Rheinland (Shanghai) Co., Ltd., Shanghai TÜV Rheinland Building, No. 177, Lane 777, West Guangzhong Road, Jing'an District, Shanghai, 200072, P.R.China



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Result Summary:

Conventional Parameters	Incoming Water	Discharged Wastewater	Raw Wastewater	Sludge
pH Value	-	-	-	Report Only
Anion - Cyanide	-	-	-	Report Only
Heavy Metals	-	Aspirational	-	Report Only
%Solids	-	-	-	Report Only
Paint Filter Test	-	-	-	Report Only
Fecal Coliform	-	-	-	Report Only
Manufacturing Restricted Substances List (MRSL)	Incoming Water	Discharged Wastewater	Raw Wastewater	Sludge
Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): Including All Isomers	-	-	Comply	Report Only
Anti-Microbials & Biocides	-	-	Comply	-
Chlorinated Paraffins	-	-	Comply	-
Chlorobenzenes and Chlorotoluenes	-	-	Comply	Report Only
Chlorophenols	-	-	Comply	-
Dimethyl Formamide (DMFa)	-	-	Comply	-
Dyes - Carcinogenic or Equivalent Concern	-	-	Comply	-
Dyes - Disperse (Sensitizing)	-	-	Comply	-
Dyes - Navy Blue Colorant	-	-	Comply	-
Flame Retardants	-	-	Comply	-
Glycols / Glycol Ethers	-	-	Comply	-
Halogenated Solvents	-	-	Comply	-
Organotin Compounds	-	-	Comply	-
Other / Miscellaneous Chemicals	-	-	Comply	-
Perfluorinated and Polyfluorinated Chemicals (PFCs)	-	-	Comply	-
Phthalates - Including all other esters of phthalic acid	-	-	Comply	-
Polycyclic Aromatic Hydrocarbons (PAHs)	-	-	Comply	Report Only
Restricted Aromatic Amines(Cleavable from Azo)	-	-	Comply	-
UV Absorbers	-	-	Comply	-
Volatile Organic Compounds (VOC)	-	-	Comply	-

Note:

Aspirational = Fulfill Aspirational Limit Foundational = Fulfill Foundational Limit Comply = Comply with ZDHC Limit

- = Not Tested

Progressive = Fulfill Progressive Limit Exceed = Exceed Foundational Limit Not Comply = Not Comply with ZDHC Limit



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Material List:

Field ID	Sample Type	Sample Description		
D001	Discharge	Discharge Wastewater (Indirect Discharge)*		
R001	Raw	Raw Wastewater*		
S001	Sludge	Sludge (Type A)*		

Notes:

* Discharge Wastewater: Wastewater that is released from a supplier, either directly to the environment (including but

not limited to: water bodies, land application/irrigation), or to a wastewater treatment system

beyond the supplier's property boundaries.

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

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

outlet pipes are direct dischargers.

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

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

discharging the pollutants.

* Raw Wastewater: Wastewater that has not yet been treated prior to direct or indirect discharge, or recycling

(Untreated Wastewater) efforts. This wastewater therefore does not meet the quality standards for beneficial use.

* Sludge: The solid or semi-solid material separated during the wastewater treatment process, including

septic and Zero Liquid Discharge (ZLD) systems.

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

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

Type A: Offsite Incineration at > 1000°C.

Type B: Landfill with Significant Control Measures.

Type C: Building Products Processed at > 1000°C.

Type D: Landfill with Limited Control Measures.

Type E Offsite Incineration and Building Products Processed at < 1000°C.

Type F: Landfill with No Control Measures.

Type G: Land Application.



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1.pH Value

				Sample No.	S001
Parameter	Parameter Code	Test Method	Unit	RL	Result
pH Value	PH	HJ 962	NONE	NA	6.92
Conclusion	·				Report Only

Abbreviation: NA = Not Applicable

Remark:

Parameter	ZDHC Wastewater Limit					
Parameter	Foundational	Progressive	Aspirational			
pH Value	6-9					

Parameter	ZDHC Sludge Limit							
Sludge Type	А	В	С	D	Е	F	G	
pH Value	Report Only	Report Only	5-11	5-11	5-11	6.5-9	6.5-9	



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2.Anion - Cyanide

				Sample No.	S001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Anion - Cyanide	57-12-5	HJ 745	mg/kg	10	< RL
Conclusion					Report Only

Abbreviation: < =less than

RL =reporting limit mg/L = milligram per liter mg/kg = milligram per kilogram

Remark:

Parameter	ZDHC Limit for Wastewater (mg/L)					
Parameter	Foundational	Progressive	Aspirational			
Anion - Cyanide	0.2	0.1	0.05			

Parameter	ZDHC Sludge Limit (mg/kg)						
Sludge Type	A B C D E F						G
Anion - Cyanide	Sample and Report only		100	85	70	70	70



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3.Heavy Metals

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
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	< RL
Mercury (Hg)	Mercury	ISO 17294-2	mg/L	0.001	< RL
Conclusion					Fulfill Aspirational Limit

				Sample No.	S001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Antimony (Sb)	Antimony	HJ 803	mg/kg	5	< RL
Chromium (Cr, total)	Chromium Total	HJ 803	mg/kg	50	< RL
Cobalt (Co)	Cobalt	US EPA 7196	mg/kg	400	< RL
Copper (Cu)	Copper	HJ 803	mg/kg	50	< RL
Nickel (Ni)	Nickel	HJ 803	mg/kg	20	< RL
Silver (Ag)	Silver	US EPA 6020b	mg/kg	50	< RL
Zinc (Zn)	Zinc	HJ 803	mg/kg	400	< RL
Arsenic (As)	Arsenic	HJ 803	mg/kg	5	< RL
Cadmium (Cd)	Cadmium	HJ 803	mg/kg	1	< RL
Chromium (Cr VI)	Chromium VI	US EPA 7196	mg/kg	20	< RL
Lead (Pb)	Lead	HJ 803	mg/kg	5	< RL
Mercury (Hg)	Mercury	US EPA 6020b	mg/kg	1	< RL
Barium (Ba)	Barium	US EPA 6020b	mg/kg	200	< RL
Selenium (Se)	Selenium	US EPA 6020b	mg/kg	5	< RL
Conclusion	· · · · · · · · · · · · · · · · · · ·		'		Report Only

Abbreviation: < =less than

RL =reporting limit mg/L = milligram per liter mg/kg = milligram per kilogram



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Remark:

	ZDHC Lim	it for Wastewa	iter (mg/L)	ZDHC Limit for Sludge (mg/kg)			
Parameter	Foundational	Progressive	Aspirational	Disposal pathway A-F	Disposal pathway G	Total Metals Threshold Values**	
Antimony (Sb)	0.1	0.05	0.01		Sample and report only	12	
Chromium (Cr, total)	0.2	0.1	0.05		3000	100	
Cobalt (Co)	0.05	0.02	0.01		Sample and report only	1600	
Copper (Cu)	1	0.5	0.25		4300	200	
Nickel (Ni)	0.2	0.1	0.05		420	70	
Silver (Ag)	0.1	0.05	0.005		Sample and report only	100	
Zinc (Zn)	5.0	1.0	0.5	Report only	7500	1000	
Arsenic (As)	0.05	0.01	0.005		75	10	
Cadmium (Cd)	0.1	0.05	0.01		85	3	
Chromium (Cr VI)	0.05	0.005	0.001		50	50	
Lead (Pb)	0.1	0.05	0.01		840	10	
Mercury (Hg)	0.01	0.005	0.001		57	1	
Barium (Ba)	Sam	ple and report	only		Sample and report only	700	
Selenium (Se)	Sam	ple and report	only		100	10	
Tin (Sn)	Sam	ple and report	only		NA	NA	

^{*} For polyester wet processing facilities Foundational, Progressive and Aspirational limits do not yet apply (unless required by law or voluntarily adopted).

^{**} if the Total Metals for Sludge exceeded the Total Metals Threshold Values (mg/kg) given in this table, proceed with Leachate Heavy Metal.



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4.%Solids

				Sample No.	S001
Parameter	Parameter Code	Test Method	Unit	RL	Result
%Solids	%Solids	HJ 613 at 105°C	%	NA	22.1
Conclusion					Report Only

Abbreviation: % = percentage

NA = Not Applicable

Remark:

Parameter		ZDHC Sludge Limit						
Sludge Type	Α	A B C D E F G						
%Solids		Sample and Report Only						



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5.Paint Filter Test

				Sample No.	S001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Paint Filter Test	Free Liquid	EPA 9095B	NA	NA	Not visible
Conclusion					Report Only

Abbreviation: NA = Not Applicable

Remark:

Parameter		ZDHC Sludge Limit							
Sludge Type	А	A B C D E F							
Paint Filter Test	Sampl	e and Repo	ort Only	Pass	r Test	Sample and Report Only			



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6.Fecal Coliform

				Sample No.	S001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Fecal Coliform	Fecal Coliform	EPA 1681	MPN/g	10	< RL
Conclusion					Report Only

Abbreviation: MPN/g = Most Probable Number per gram

Remark:

Parameter	ZDHC Sludge Limit (MPN/g)								
Sludge Type	A	A B C D E F G							
Fecal Coliform		Sample and Report Only 1000 1000							



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

					Sample No.	R001
Parameter	Parameter	Test Method	Unit	RL	ZDHC Limit	Result
	Code					
Nonylphenol (NP),	104-40-5	ISO 18857-2	μg/L	5	5	< RL
mixed 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	9002-93-1	ISO 18254-1,	μg/L	5	5	< RL
(OPEO)	9036-19-5	ASTM D7065				
	68987-90-6					
Conclusion						Comply

				Sample No.	S001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Nonylphenol (NP),	104-40-5	ISO 18857-2	mg/kg	0.2	< RL
mixed isomers	25154-52-3				
	11066-49-2				
	84852-15-3				
Octylphenol (OP), mixed	140-66-9	ISO 18857-2	mg/kg	0.2	< RL
isomers	1806-26-4				
	27193-28-8				
Nonylphenol ethoxylates	9016-45-9	ISO 18254-1, ASTM D7065	mg/kg	0.2	< RL
(NPEO)	26027-38-3				
	37205-87-1				
	68412-54-4				
	127087-87-0				
Octylphenol ethoxylates	9002-93-1	ISO 18254-1, ASTM D7065	mg/kg	0.2	< RL
(OPEO)	9036-19-5				
	68987-90-6				
Conclusion					Report Only

Abbreviation: < =less than

RL =reporting limit μ g/L = microgram per liter mg/kg = milligram per kilogram



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Remark:

Parameter		ZDHC Sludge Limit (mg/kg)						
Sludge Type	Α	A B C D E F G						
AP & APEOs	Sample	e and Repo	ort Only	0.4	0.4	0.4	0.4	



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8.Anti-Microbials & Biocides

					Sample No.	R001
Parameter	Parameter	Test Method	Unit	RL	ZDHC Limit	Result
	Code					
o-Phenylphenol (+Salts)	90-43-7	MS_0023187_en 2020	μg/L	100	100	< RL
		-09 modified				
Triclosan	3380-34-5	US EPA 8270E	μg/L	100	100	< RL
Permethrin	Multiple	US EPA 8270E	μg/L	500	500	< RL
Conclusion						Comply

Abbreviation: < = less than

RL =reporting limit



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9.Chlorinated Paraffins

					Sample No.	R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
Medium-chain Chlorinated paraffins (MCCPs) (C14-C17)	85535-85-9	US EPA 3510, ISO 18219-2	μg/L	5	500	< RL
Short-chain Chlorinated paraffins (SCCPs) (C10-C13)	85535-84-8	US EPA 3510, ISO 18219-1	μg/L	5	25	< RL
Conclusion						Comply

Abbreviation: < = less than

RL =reporting limit



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10. Chlorobenzenes and Chlorotoluenes

					Sample No.	R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
1,2-Dichlorobenzene	95-50-1	GB/T 20384-2006 modified	µg/L	0.2	0.2	< RL
Other isomers of mono, di-, tri-, tetra-, penta- and hexa- Chlorobenzene and mono, di- tri-, tetra- and penta-Chlorotoluene	Multiple	GB/T 20384-2006 modified	µg/L	0.2	0.2	< RL
Conclusion		•	•	•	,	Comply

				Sample No.	S001
Parameter	Parameter Code	Test Method	Unit	RL	Result
mono, di- tri-, tetra- and penta-Chlorotoluene	Multiple	HJ 605	mg/kg	0.1	< RL
Conclusion					Report Only

Abbreviation: < =less than

RL =reporting limit µg/L = microgram per liter mg/kg = milligram per kilogram

Remark:

Parameter	ZDHC Sludge Limit (mg/kg)								
Sludge Type	А	A B C D E F G							
mono, di- tri-, tetra- and penta-Chlorotoluene	Sample and Report only			0.2	0.2	0.2	0.2		



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11.Chlorophenols

					Sample No.	R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
2-Chlorophenol	95-57-8	US EPA 8270E	μg/L	0.5	0.5	< RL
3-chlorophenol	108-43-0	US EPA 8270E	μg/L	0.5	0.5	< RL
4-chlorophenol	106-48-9	US EPA 8270E	μg/L	0.5	0.5	< RL
2,3-Dichlorophenol	576-24-9	US EPA 8270E	μg/L	0.5	0.5	< RL
2,4-Dichlorophenol	120-83-2	US EPA 8270E	μg/L	0.5	0.5	< RL
2,5-Dichlorophenol	583-78-8	US EPA 8270E	μg/L	0.5	0.5	< RL
2,6-Dichlorophenol	87-65-0	US EPA 8270E	μg/L	0.5	0.5	< RL
3,4-Dichlorophenol	95-77-2	US EPA 8270E	μg/L	0.5	0.5	< RL
3,5- Dichlorophenol	591-35-5	US EPA 8270E	μg/L	0.5	0.5	< RL
2,3,4-Trichlorophenol	15950-66-0	US EPA 8270E	μg/L	0.5	0.5	< RL
2,3,5-Trichlorophenol	933-78-8	US EPA 8270E	μg/L	0.5	0.5	< RL
2,3,6-Trichlorophenol	933-75-5	US EPA 8270E	μg/L	0.5	0.5	< RL
2,4,5-Trichlorophenol	95-95-4	US EPA 8270E	μg/L	0.5	0.5	< RL
2,4,6-Trichlorophenol	88-06-2	US EPA 8270E	μg/L	0.5	0.5	< RL
3,4,5-Trichlorophenol	609-19-8	US EPA 8270E	μg/L	0.5	0.5	< RL
2,3,4,5- Tetrachlorophenol	4901-51-3	US EPA 8270E	μg/L	0.5	0.5	< RL
2,3,4,6- Tetrachlorophenol	58-90-2	US EPA 8270E	μg/L	0.5	0.5	< RL
2,3,5,6- Tetrachlorophenol	935-95-5	US EPA 8270E	μg/L	0.5	0.5	< RL
Pentachlorophenol	87-86-5	US EPA 8270E	μg/L	0.5	0.5	< RL
Conclusion	. '		, '			Comply

Abbreviation: < =less than

RL =reporting limit



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12.Dimethyl Formamide (DMFa)

					Sample No.	R001
Parameter	Parameter	Test Method	Unit	RL	ZDHC Limit	Result
	Code					
Dimethyl formamide	68-12-2	US EPA 8215, 8270E	μg/L	1000	1000	< RL
(DMFa) *						
Conclusion		•				Comply

Abbreviation: < = less than

RL = reporting limit μ g/L = microgram per liter

Remark:

Sample and Report only for mock leather



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13.Dyes - Carcinogenic or Equivalent Concern

					Sample No.	R001
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
Basic violet 3 with >0.1% of Michler's Ketone	548-62-9	ISO 16373	μg/L	500	500	< RL
C.I. Acid Viiolet 49	1694-09-3	ISO 16373	μg/L	500	500	< RL
Conclusion						Comply

Abbreviation: < =less than

RL =reporting limit



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14.Dyes - Disperse (Sensitizing)

					Sample No.	R001
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



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15.Dyes - Navy Blue Colorant

					Sample No.	R001
Parameter	Parameter	Test Method	Unit	RL	ZDHC Limit	Result
	Code					
Component 1: C39H23CI-CrN7O12S 2Na	118685-33-9	ISO 16373	μg/L	500	500	< RL
Component 2: C46H-30CrN10O20S2 3Na	Not	ISO 16373	μg/L	500	500	< RL
	Allocated					
Conclusion	•					Comply

Abbreviation: < = less than

RL = reporting limit μg/L = microgram per liter



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16.Flame Retardants

					Sample No.	R001
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	25	< RL
Decabromodiphenyl ether (DecaBDE)	1163-19-5	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	μg/L	5	25	< 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	25	< RL
Pentabromodiphenyl ether (PentaBDE)	32534-81-9	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	μg/L	5	25	< RL
Octabromodiphenyl ether (OctaBDE)	32536-52-0	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	μg/L	5	25	< 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	25	< RL
Tris(1- aziridinyl)phosphine oxide) (TEPA)	545-55-1	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	μg/L	5	25	< RL
Polybromobiphenyls (PBB)	59536-65-1	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	μg/L	5	25	< RL
Tetra-bromo-bisphenol-A (TBBPA)	79-94-7	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	μg/L	5	25	< RL
Hexabromocyclododeca ne(HBCDD)	3194-55-6	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	μg/L	5	25	< 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	25	< 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	25	< RL
Tris-(2-chloro-1- methylethyl) phosphate (TCPP)	13674-84-5	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	µg/L	5	25	< RL
Decabromobiphenyl (DecaBB)	13654-09-6	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	μg/L	5	25	< RL
Dibromobiphenyls (DiBB)	Multiple	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	μg/L	5	25	< RL
Octabromobiphenyls (OctaBB)	Multiple	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	μg/L	5	25	< RL
Tetrabromobisphenol A bis(dibromopropyl ether)	21850-44-2	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	μg/L	5	25	< RL
Heptabromodiphenyl ether (HeptaBDE)	68928-80-3	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	μg/L	5	25	< RL
Hexabromodiphenyl ether (hexaBDE)	36483-60-0	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	μg/L	5	25	< RL
Monobromobiphenyls (MonoBB)	Multiple	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	μg/L	5	25	< RL
Monobromodiphenylethe rs Multiple (MonoBDEs)	Multiple	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	μg/L	5	25	< RL
Nonabromobiphenyls (NonaBB)	Multiple	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	μg/L	5	25	< RL
Nonabromodiphenyl ether (NonaBDE)	63936-56-1	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	μg/L	5	25	< RL
Tetrabromodiphenyl ether (TetraBDE)	40088-47-9	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	μg/L	5	25	< RL



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Tribromodiphenylethers (TriBDEs)	Multiple	US EPA 8270, ISO 22032, US EPA 527,US EPA 8321B	µg/L	5	25	< RL
Boric acid *	10043-35-3; 11113-50-1	EPA 6020a	μg/L	20	100	< RL
Diboron trioxide *	1303-86-2	EPA 6020a	μg/L	20	100	< RL
Disodium octaborate *	12008-41-2	EPA 6020a	μg/L	20	100	< RL
Disodium tetraborate anhydrous *	1303-96-4; 1330-43-4	EPA 6020a	μg/L	20	100	< RL
Tetraboron disodium heptaoxide, hydrate *	12267-73-1	EPA 6020a	μg/L	20	100	< RL
Conclusion						Comply

Abbreviation: < =less than

RL =reporting limit

μg/L = microgram per liter

Remark:

Borate salts are determined as total boron via ICP. Limit refers to boron, not the salt.



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17. Glycols / Glycol Ethers

					Sample No.	R001			
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result			
Bis(2-methylethyl)ether	111-96-6	EN 71-9:2005+A1:2007; EN 71-10 and -11:2005 modified	µg/L	50	50	< RL			
2-Ethoxyethanol	110-80-5	EN 71-9:2005+A1:2007; EN 71-10 and -11:2005 modified	μg/L	50	50	< RL			
2-Ethoxyethyl acetate	111-15-9	EN 71-9:2005+A1:2007; EN 71-10 and -11:2005 modified	μg/L	50	50	< RL			
Ethylene glycol dimethyl ether	110-71-4	EN 71-9:2005+A1:2007; EN 71-10 and -11:2005 modified	µg/L	50	50	< RL			
2-Methoxyethanol	109-86-4	EN 71-9:2005+A1:2007; EN 71-10 and -11:2005 modified	μg/L	50	50	< RL			
2-Methoxyethyl acetate	110-49-6	EN 71-9:2005+A1:2007; EN 71-10 and -11:2005 modified	μg/L	50	50	< RL			
2-Methoxypropyl acetate	70657-70-4	EN 71-9:2005+A1:2007; EN 71-10 and -11:2005 modified	μg/L	50	50	< RL			
Triethylene glycol dimethyl ether	112-49-2	EN 71-9:2005+A1:2007; EN 71-10 and -11:2005 modified	μg/L	50	50	< RL			
Conclusion	Conclusion								

Abbreviation: < =less than

RL =reporting limit μ g/L = microgram per liter



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18. Halogenated Solvents

					Sample No.	R001
Parameter	Parameter	Test Method	Unit	RL	ZDHC Limit	Result
	Code					
1,2-dichloroethane	107-06-2	US EPA 8260D	μg/L	1	1	< RL
Methylene chloride	75-09-2	US EPA 8260D	μg/L	1	1	< RL
Trichloroethylene	79-01-6	US EPA 8260D	μg/L	1	1	< RL
Tetrachloroethylene	127-18-4	US EPA 8260D	μg/L	1	1	< RL
Conclusion	•		'			Comply

Abbreviation: < =less than

RL =reporting limit



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19. Organotin Compounds

					Sample No.	R001
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
Dipropyltin compounds (DPT)	Multiple	ISO 17353	μg/L	0.01	0.01	< RL
Tetrabutyltin compounds (TeBT)	Multiple	ISO 17353	μg/L	0.01	0.01	< RL
Tripropyltin Compounds (TPT)	Multiple	ISO 17353	μg/L	0.01	0.01	< RL
Tetraoctyltin compounds (TeOT)	Multiple	ISO 17353	μg/L	0.01	0.01	< RL
Tricyclohexyltin (TCyHT)	Multiple	ISO 17353	μg/L	0.01	0.01	< RL
Tetraethyltin Compounds (TeET)	Multiple	ISO 17353	μg/L	0.01	0.01	< RL
Conclusion	•		•			Comply

Abbreviation: < =less than

RL =reporting limit



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20.Other / Miscellaneous Chemicals

					Sample No.	R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
AEEA [2-(2- aminoethylamino) ethanol]	111-41-1	GB 31604.10-2016 modified	μg/L	500	500	< RL
Bisphenol A	80-05-7	GB 31604.10-2016 modified	μg/L	10	10	< RL
Thiourea	62-56-6	GB 31604.10-2016 modified	μg/L	50	50	< RL
Quinoline	91-22-5	GB 31604.10-2016 modified	μg/L	50	50	< RL
Borate, zinc salt *	12767-90-7	EPA 6020a	μg/L	50	100	B <rl;zn <rl< td=""></rl<></rl;zn
Conclusion						

Abbreviation: < = less than

RL = reporting limit μg/L = microgram per liter

Remark:

Borate, zinc salt is determined as total boron and total zinc via ICP. Limit refers to boron and zinc individaully, not the salt.



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21.Perfluorinated and Polyfluorinated Chemicals (PFCs)

					Sample No.	R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
Perfluorooctane sulfonate (PFOS) and related substances, Perfluorooctanoic acid (PFOA)	Multiple	EPA 8270, PFCs: LC- MS-MS FTOH: GC-MS	μg/L	0.01	0.01	< RL
Perfluorooctanoic acid (PFOA) related substances	Multiple	EPA 8270, PFCs: LC- MS-MS FTOH: GC-MS	μg/L	1	1	< RL
Conclusion	•					Comply

Abbreviation: < =less than

RL =reporting limit



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22. Phthalates - Including all other esters of phthalic acid

					Sample No.	R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
Di(ethylhexyl) phthalate (DEHP)	117-81-7	US EPA 8270E, ISO 18856	μg/L	10	10	< RL
Bis(2-methoxyethyl) phthalate(DMEP)	117-82-8	US EPA 8270E, ISO 18856	μg/L	10	10	< RL
Di-n-octyl phthalate (DNOP)	117-84-0	US EPA 8270E, ISO 18856	μg/L	10	10	< RL
Di-iso-decyl phthalate (DIDP)	26761-40-0	US EPA 8270E, ISO 18856	μg/L	10	10	< RL
Di-Isononyl Phthalate (DINP)	28553-12-0	US EPA 8270E, ISO 18856	μg/L	10	10	< RL
Di-n-hexyl phthalate (DnHP)	84-75-3	US EPA 8270E, ISO 18856	μg/L	10	10	< RL
Di-n-butyl phthalate (DBP)	84-74-2	US EPA 8270E, ISO 18856	μg/L	10	10	< RL
Butyl benzyl phthalate (BBP)	85-68-7	US EPA 8270E, ISO 18856	μg/L	10	10	< RL
Dinonyl phthalate (DNP)	84-76-4	US EPA 8270E, ISO 18856	μg/L	10	10	< RL
Diethyl phthalate (DEP)	84-66-2	US EPA 8270E, ISO 18856	μg/L	10	10	< RL
Di-n-propyl phthalate (DPRP)	131-16-8	US EPA 8270E, ISO 18856	μg/L	10	10	< RL
Di-isobutyl phthalate (DIBP)	84-69-5	US EPA 8270E, ISO 18856	μg/L	10	10	< RL
Di-cyclohexyl phthalate (DCHP)	84-61-7	US EPA 8270E, ISO 18856	μg/L	10	10	< RL
Di-iso-octyl phthalate (DIOP)	27554-26-3	US EPA 8270E, ISO 18856	μg/L	10	10	< RL
1,2-benzenedicarboxylic acid, di-C7-11-branched and linearalkyl esters (DHNUP)	68515-42-4; 68515-50-4	US EPA 8270E, ISO 18856	μg/L	10	10	< RL
1,2-benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6; 84777-06-0	US EPA 8270E, ISO 18856	μg/L	10	10	< RL
Di-n-pentylphalates	131-18-0	US EPA 8270E, ISO 18856	μg/L	10	10	< RL
Diisopentylphthalates	605-50-5	US EPA 8270E, ISO 18856	μg/L	10	10	< RL
Conclusion		<u> </u>				Comply

Abbreviation: < =less than

RL =reporting limit



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23. Polycyclic Aromatic Hydrocarbons (PAHs)

					Sample No.	R001	
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result	
Benzo(a)pyrene	50-32-8	US EPA 8270E	μg/L	1	1	< RL	
Anthracene	120-12-7	US EPA 8270E	μg/L	1	1	< RL	
Pyrene	129-00-0	US EPA 8270E	μg/L	1	1	< RL	
Benzo[ghi]perylene	191-24-2	US EPA 8270E	μg/L	1	1	< RL	
Benzo(e)pyrene	192-97-2	US EPA 8270E	μg/L	1	1	< RL	
Indeno[1,2,3-cd]pyrene	193-39-5	US EPA 8270E	μg/L	1	1	< RL	
Benzo(j)fluoranthene	205-82-3	US EPA 8270E	μg/L	1	1	< RL	
Benzo[b]fluoranthene	205-99-2	US EPA 8270E	μg/L	1	1	< RL	
Fluoranthene	206-44-0	US EPA 8270E	μg/L	1	1	< RL	
Benzo[k]fluoranthene	207-08-9	US EPA 8270E	μg/L	1	1	< RL	
Acenaphthylene	208-96-8	US EPA 8270E	μg/L	1	1	< RL	
Chrysene	218-01-9	US EPA 8270E	μg/L	1	1	< RL	
Dibenz(a,h)anthracene	53-70-3	US EPA 8270E	μg/L	1	1	< RL	
Benzo[a]anthracene	56-55-3	US EPA 8270E	μg/L	1	1	< RL	
Acenaphthene	83-32-9	US EPA 8270E	μg/L	1	1	< RL	
Phenanthrene	85-01-8	US EPA 8270E	μg/L	1	1	< RL	
Fluorene	86-73-7	US EPA 8270E	μg/L	1	1	< RL	
Naphthalene	91-20-3	US EPA 8270E	μg/L	1	1	< RL	
Conclusion							



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			Ç	Sample No.	S001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Benzo(a)pyrene	50-32-8	HJ 805-2016	mg/kg	0.2	< RL
Anthracene	120-12-7	HJ 805-2016	mg/kg	0.2	12.1
Pyrene	129-00-0	HJ 805-2016	mg/kg	0.2	< RL
Benzo[ghi]perylene	191-24-2	HJ 805-2016	mg/kg	0.2	< RL
Benzo(e)pyrene	192-97-2	HJ 805-2016	mg/kg	0.2	< RL
Indeno[1,2,3-cd]pyrene	193-39-5	HJ 805-2016	mg/kg	0.2	< RL
Benzo(j)fluoranthene	205-82-3	HJ 805-2016	mg/kg	0.2	< RL
Benzo[b]fluoranthene	205-99-2	HJ 805-2016	mg/kg	0.2	< RL
Fluoranthene	206-44-0	HJ 805-2016	mg/kg	0.2	< RL
Benzo[k]fluoranthene	207-08-9	HJ 805-2016	mg/kg	0.2	< RL
Acenaphthylene	208-96-8	HJ 805-2016	mg/kg	0.2	< RL
Chrysene	218-01-9	HJ 805-2016	mg/kg	0.2	< RL
Dibenz(a,h)anthracene	53-70-3	HJ 805-2016	mg/kg	0.2	< RL
Benzo[a]anthracene	56-55-3	HJ 805-2016	mg/kg	0.2	< RL
Acenaphthene	83-32-9	HJ 805-2016	mg/kg	0.2	< RL
Phenanthrene	85-01-8	HJ 805-2016	mg/kg	0.2	< RL
Fluorene	86-73-7	HJ 805-2016	mg/kg	0.2	< RL
Naphthalene	91-20-3	HJ 805-2016	mg/kg	0.2	< RL
Conclusion	,		•		Report Only

Abbreviation: < =less than

RL =reporting limit µg/L = microgram per liter mg/kg = milligram per kilogram

Remark:

Parameter	ZDHC Sludge Limit (mg/kg)								
Sludge Type	А	A B C D E F G							
PAHs	Sample and Report only			0.2	0.2	0.2	0.2		



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24.Restricted Aromatic Amines(Cleavable from Azo)

					Sample No.	R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
4,4'-methylene-bis-(2-chloroaniline)	101-14-4	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL
4,4'- diaminodiphenylmethane	101-77-9	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL
4,4'-oxydianiline	101-80-4	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL
4-chloroaniline	106-47-8	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL
3,3'-Dimethoxybenzidine	119-90-4	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL
3,3'-Dimethylbenzidine	119-93-7	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL
6-Methoxy-m-toluidine	120-71-8	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL
2,4,5-trimethylaniline	137-17-7	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL
4,4'-Thiodianiline	139-65-1	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL
4-aminoazobenzene	60-09-03	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL



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4-methoxy-m- phenylenediamine	615-05-4	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL	
4,4'-Methylenedi-o- toluidine	838-88-0	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL	
2,6-xylidine	87-62-7	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL	
o-anisidine	90-04-0	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL	
2-naphthylamine	91-59-8	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL	
3,3'-Dichlorobenzidine	91-94-1	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL	
4-Aminobiphenyl	92-67-1	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL	
benzidine	92-87-5	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL	
o-toluidine	95-53-4	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL	
2,4-xylidine	95-68-1	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL	
4-chloro-o-toluidine	95-69-2	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL	



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4-methyl-m- phenylenediamine	95-80-7	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL
o-Aminoazotoluene	97-56-3	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL
5-nitro-o-toluidine	99-55-8	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL
4-chloro-o-toluidinium chloride	3165-93-3	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL
2-Naphthylammoniuma cetate	553-00-4	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL
4-methoxy-m-phenylene diammonium sulphate	39156-41-7	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL
2,4,5-trimethylaniline hydrochloride	21436-97-5	Reduction, EPA 8270 and ISO 14362-1 and ISO 14362-3 (if needed) GC/MS and LC/ MS/MS	μg/L	0.1	0.1	< RL
Conclusion						Comply

Abbreviation: < =less than

RL =reporting limit



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25.UV Absorbers

					Sample No.	R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
2-(2H-benzotriazol-2-yl)- 4-(tert-butyl)-6-(sec- butyl) phenol (UV-350)	36437-37-3	US EPA 8270, ISO 22032, US EPA 527, US EPA 8321B	μg/L	100	100	< RL
2-(2H-benzotriazol-2-yl)- 4,6-ditertpentylphenol (UV-328)	25973-55-1	US EPA 8270, ISO 22032, US EPA 527, US EPA 8321B	μg/L	100	100	< RL
2-benzotriazol-2-yl-4,6- di-tert-butylphenol (UV- 320)	3846-71-7	US EPA 8270, ISO 22032, US EPA 527, US EPA 8321B	μg/L	100	100	< RL
2,4-Di-tert-butyl-6-(5- chlorobenzotriazole-2-yl) phenol (UV-327)	3864-99-1	US EPA 8270, ISO 22032, US EPA 527, US EPA 8321B	μg/L	100	100	< RL
Conclusion				•		Comply

Abbreviation: < = less than

RL = reporting limit μg/L = microgram per liter



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26. Volatile Organic Compounds (VOC)

					Sample No.	R001
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
Toluene*	108-88-3	ISO 11423-1	μg/L	1	1	< RL
Conclusion			'			Comply

Abbreviation: < =less than

RL =reporting limit

μg/L = microgram per liter

Remark:

Sample and report only for mock leather



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Wastewater Sampling Report for ZDHC WWG ZDHC WWG 废水采样报告

ZDHC Wastewater Guidelines Version 2.1 (Nov. 2022)
ZDHC Wastewater and Sludge SAP Version 2.1 (Nov. 2022)

Client 客户:	
Buyer's Name 买家名称:	_
Test item(s) 测试项目:	ZDHC Wastewater
Factory Name 工厂名称:	湖南杰新纺织印染有限公司
Factory Address 工厂地址:	Hunan Jiexin Textile Printing and Dyeing Co., Ltd. 中国湖南省常德经济技术开发区尚德路 18 号 No.18 Shangde Road Economic and Technological Development, ZoneChangdeHunan
Discharge Type of Wastewater: 废水排放类型	China Indirect discharge 间接排放
On-site ETP 在线废水处理装置	Yes 是
Sampling Date 采样日期:	2024年7月5日
Sampling Location 采样点:	Incoming water (进水) Discharged Wastewater (排放废水) Raw Wastewater (原废水) Sludge (污泥) (Ref to the location map attached 参考采样点地图)
Sampling Person 采样人员:	Jimmy Zhang / 18823432453
ZDHC Sampler Accreditation Certification Number 采样员证书编号:	C74D106819958
TUV Sales 莱茵销售支持:	Jessica Zeng 134 1619 3338
Sampling Field Contact: 采样现场联系方式	Name (联系人): 宋爱民 Phone (电话): 13607362291

P.R.China Tel.: (86) 21 6108 1188 Fax: (86) 21 6074 7298

Mail: info@shg.chn.tuv.com Web: www.chn.tuv.com



Page 37 of 51 Order No. 项目编号: 326034682 (Sampling Report)

Sampling Preparation Checklist 采样准备检查表

Checked By 审核人: Jimmy Zhang Date 日期: 2024.7.5

Equipment list 设备列表	Check 核査	Equipment list 设备列表	Check 核査
Sampling equipment 采样设备	Buffer 缓冲液	N	
Sampling rod 采样杆	Y	gtrito pH meter pH 计	Y
Depth sampler with temperature meter 带温度计取样器	Y	Temperature meter 温度计	Y
Disposable gloves 一次性手套	Y	DO meter 溶氧仪	N
2L amber glass bottle 2L 棕色玻璃瓶	Y	Total Chloride meter 总氯测试仪	N
1L amber glass bottle 1L 棕色玻璃瓶	Y	Quality control samples 质控样	
100mL amber glass bottle 100mL 棕色玻璃瓶	Y	Field blanks 现场空白	Y
500mL amber glass bottle 500mL 棕色玻璃瓶	Y	Transport/equipment blanks 运输/设备空白	Y
250mL amber glass bottle 250mL 棕色玻璃瓶	Y	Sample storage and transport	样品储存和运输
100ml PE bottle 100mL 聚乙烯瓶	Y	Blue Ice 蓝冰	Y
500mL PE bottle 500mL 聚乙烯瓶	Y	Packing material 包装材料	Y
40mL amber VOA vial 40mL 棕色 VOA 小瓶	Y	Container 样品存放容器	Y
Aseptic bag 无菌袋	N	Safety equipment 安全装备	
PE bag 聚乙烯袋	N	First-aid kit 急救箱	N
Labels for samples 样品标签	Y	Drinking water 饮用水	N
Chemical and measurement equipment 化学试剂及测量设备	t	Mobile phone/communication equipment 手机/通信设备	N
Nitric acid 硝酸	N	PPE-wide brimmed has wet weather gear waders/rubber boots disposable overalls 个人防护设备-高筒防水胶靴/一次性工装连体橡胶靴	N
Sulfuric acid 硫酸	N	Antiseptic hand wash 杀菌洗手液	N
HCI 盐酸	N	Lifejackets/EPIRB 救生衣/应急无线电示位标	N
Na ₂ S ₂ O ₃ 硫代硫酸钠	N	Others 其他	
2M zinc acetate 2M 乙酸锌	N	Tools-spanner/shifter.etc 工具-扳手/移动装置等	N
1M NaOH 1M 氢氧化钠溶液	N	Digital camera and batteries/charger 数码相机和电池/充电器	N



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Basic Information in Sampling Fields 采样基本信息						信息	
Production 生产线(编		(Operation 运行状		Note 说明		
印染车			正常运		7		
11.71	1.3		II 114 ~	- 13		_	
Wastewater trea 污水处理设施		Operation 运行状		Quantity of was 污水排放量		Note 说明	
DW00	1	正常运	行	3,0	000	无	
Flowrate and Type of Disharge 排放量及排放类 型	図 Indirect 间接排放 □ Indirect I 间接排放	放量: scharge 直接: Discharge wit +有污水处理! Discharge with +无污水处理! uid Discharge	h WWTP 装置 nout WW [*] 装置		Confirmed by Sa ☑ Yes ☐ No	ampling team	
standard of the factory 企业排放标准				GB 4287-2012	纺织染料工业水污染物排	放标准 GB 4287-2012。/	
Facility Type 工厂类型	是涤纶湿 □ Is the PL	lyester wet pr 法加工厂吗? I processing f 工厂吗?		facilities?	☐ Yes ☑ No ☐ Yes ☑ No		
是 PU 加工厂吗? ☑ A - Offsite Incineration at >1000°C 大于 1000°C 场外焚烧 □ B - Landfill with Significant Control Measures 重大控制措施的垃圾填埋场 □ C - Building Products Processed at >1000 °C 大于 1000°C下加工的建筑产品 □ D - Landfill with Limited Control Measures 采取有限控制措施的垃圾填埋场 □ E - Offsite Incineration and Building Products Processed at <1000°C 小于 1000°C 场外焚烧和加工的建筑产品 □ F - Landfills with No Control Measures 没有控制措施的垃圾填埋场 □ G - Land Application 土地应用			trol Measures d at >1000 °C 品 Measures 埋场 ding Products	N/A			
 Sampling day weather 采样天气状况:			⊠ sunnv	 y 晴 ロ rainy 雨 ロ	cloudy 多云 □ o	thers 其他	
Sampling mode **		17174.		•	•		
Sampling day tem		羊气温:	図 discrete 瞬时 図 composite 混合 □ others 其他 32℃				
Distance from TU 采样点距离莱茵距	· V to sampling		1,174 km				



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Sampling Location (采样点): Incoming water (进水)

Sampling Team (采样组)		Jimmy Zhang
Sampling time (采样时间)		09:30
	Colour (颜色)	无
Sample description in	Odor (气味)	无
field (样品描述)	Turbidity (浑浊)	无
	Oil slick (浮油)	无

Test Item In Lab (实验室测试				T	ı
Test item 采样项目	Lab No. 标签 号	Bottle type and size 样品瓶规格	Treatment 现场处理情况	Multiple sampling (Y/N)	Note 备注
AP/APEO, Anti- Microbials & Biocides, Chlorinated Parafins, Chlorophenols, COC, DMFa, Dyes, Flame retardant, Glycols, Organotin, Phthalates, PAHs, AZO, UV Absorbers, Other chemicals 烷基酚/烷基酚聚氧乙烯醚, 抗菌剂, 氯化石蜡, 氯化苯酚, 氯苯和氯甲苯,N,N-二甲酰胺, 染料,阻燃剂,乙二醇,有机锡,邻苯,多环芳烃,偶氮染料,紫外吸收剂,其他化学物质	1001	2L amber glass bottle 2L 棕色玻璃瓶	-	N	
PFCs 全氟化物	1002	1L PE bottle 1L 聚乙烯瓶	Filling without air in bottle 满瓶不留空气	N	
Halogenated Solvent/ VOCs 卤化溶剂、挥发性有机物	1003	3*40mL amber VOA vial no head-space 3个40mL棕色VOA小 瓶	Acidify to pH < 2 with hydrochloric acid, filling without air in bottle. 加盐酸调节水样pH小于2,满瓶不留空气	N	
Field blank of Halogenated Solvent/ VOCs 卤化溶剂、挥发性有机物现 场空白	I103B	3*40mL amber VOA vial no head-space 40mL棕色VOA小瓶	Filling with Grade 1 water, acidify to pH < 2 with hydrochloric acid, filling without air in bottle. 用一级水装满,加盐酸调节水样pH小于2,满瓶不留空气	-	Only open the cap when sampling on site, no sampling required 现场采样时打开瓶盖即可,不需要采样
Heavy metals 重金属	1004	1L PE bottle 1L聚乙烯瓶	Acidify to pH< 2 with nitric acid 加硝酸调节水样 pH 小于 2	N	



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Test item 采样项目	Lab No. 标签 号	Bottle type and size 样品瓶规格	Treatment 现场处理情况	Multiple sampling (Y/N)	Note 备注
Field blank of Mercury 汞现场空白	I104B	100mL PE bottle 100mL 聚乙烯瓶	Filling with Grade 1 water and Acidify to pH < 2 with nitric acid 装入一级水,加硝酸调节水样pH小于2	-	Only open the cap when sampling on site, no sampling required 现场采样时打开瓶盖即可,不需要采样
Cr VI 六价铬	1005	3*40mL amber brown glass VOA vial 3个40mL棕色玻璃 VOA小瓶	0.45 um filter in field, add buffer* to pH 9.0- 9.5 现场过 0.45um 微膜, 加缓冲液调节水样 pH 至 9.0-9.5	N	
Temperature indicator bottle 温度指示瓶	-	500mL amber glass bottle 500mL棕色玻璃瓶	-	-	

Remark: # Buffer = EPA Method 218.6. Dissolve 33 g of ammonium sulphate in 75 ml of ASTM D1103 Type 1 or ISO 3696 water, add 6.5 ml of ammonium hydroxide. Dilute to 100 ml with ASTM D1103 Type 1 or ISO 3696 water.



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Sampling Location (采样点): Discharged Wastewater (排放废水)

Sampling Team (Team (采样组) Jimmy Zhang								
Sampling time (采样时间)		1	2	3	4	5	6	7	Ave
Sampling time (7	7十四月	10:00	11:00	12:00	13:00	14:00	15:00	16:00	-
Velocity 流速(m³,	Velocity 流速(m³/min)		2.10	2.12	2.08	2.08	2.12	2.10	2.1
	Colour (颜色)	淡黄色							
Sample description in	Odor (气味)	无							
field (样品描述) Turbidity (浑浊)		无							
	Oil slick (浮油)	无							

^A Use incoming water temperature as receiver body temperature if no receiver body can be found

Test item 采样项目	Lab No. 标签号	Bottle type and size 样品瓶规格	Treatment 现场处理情况	Multiple sampling (Y/N)	Note 备注
Heavy metals 重金属	D104	1L PE bottle 1L聚乙烯瓶	Acidify to pH< 2 with nitric acid 加硝酸调节水样 pH 小于 2	Υ	
Field blank of Mercury 汞现场空白	D104B	100mL PE bottle 100mL 聚乙烯瓶	Filling with Grade 1 Water, Acidify to pH < 2 with nitric acid 填入一级水,加硝酸调节水 样pH小于2	•	Only open the cap when sampling on site, no sampling required 现场采样时打开瓶盖即可,不需要采样
Cr VI 六价铬	D105	3*40mL amber brown glass VOA vial 3个40mL棕色玻璃 VOA小瓶	0.45 um filter in field, add buffer* to pH 9.0-9.5 现场过 0.45um 微膜,加缓 冲液调节水样 pH 至 9.0-9.5	Y	



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Sampling Location (采样点): Raw Wastewater (原废水)

Sampling Team (采样组)			hang								
Sampling time (采样时间)		1	2	3	4	5	6	7			
		10:40	11:40	12:40	13:40	14:40	15:40	16:40			
	Colour (颜色)	淡黑色									
Sample description in	Odor (气味)	轻微刺鼻									
field (样品描述)	Turbidity (浑浊)	轻微浑浊	4								
,	Oil slick (浮油)	无浮油	大 天 汗油								

Test item in Lab (
Test item 采样项目	Lab No. 标签号	Bottle type and size 样品瓶规格	Treatment 现场处理情况	Multiple samplin g (Y/N)	Note 备注	
AP/APEO, Anti-Microbials & Biocides, Chlorinated Parafins, Clorophenols, COC, DMFa, Dyes, Flame retardant, Glycols, Organotin, Phthalates, PAHs, AZO, UV Absorbers, Other chemicals 烷基酚/烷基酚聚氧乙烯醚,抗菌剂,氯化石蜡,氯化苯酚,氯苯和氯甲苯,N,N-二甲酰胺,染料,阻燃剂,乙二醇,有机锡,邻苯,多环芳烃,偶氮染料,紫外吸收剂,其他化学物质	R201	2L*7 amber glass bottle 2L*7 棕色玻璃瓶	-	Υ		
PFCs 全氟化物	R202	1L PE bottle 1L 聚乙烯瓶	Filling without air in bottle 满瓶不留空气	Υ		
Halogenated Solvent/ VOCs 卤化溶剂、挥发性有机 物	R203	3*40mL amber VOA vial no head-space 3个40mL棕色VOA小 瓶	Acidify to pH < 2 with hydrochloric acid, filling without air in bottle. 加盐酸调节水样pH小于2,满瓶不留空气	Y		
Field blank of Halogenated Solvent/ VOCs 卤化溶剂、挥发性有机 物现场空白	R203B	3*40mL amber VOA vial no head-space 40mL棕色VOA小瓶	Acidify to pH < 2 with hydrochloric acid, filling without air in bottle. 加盐酸调节水样pH小于2,满瓶不留空气	-	Only open the cap when sampling on site, no sampling required 现场采样时打开瓶盖即可,不需要采样	



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Sampling Location (采样点): Sludge (污泥)

Sampling Team (采样组)		Jimmy Zhang	
Sampling time (采样时间)		11:20	
	Surroundings (周边环境)	自然环境	
	Sludge colour (土壤颜色)	黑色	
Sample description in field	Sludge type (土壤性状)	図 solid (固体状)	□ liquid (液体状)
(样品描述)	Sludge odor (土壤气味)	无	
	Apparent source of pollution (明显污染源)	无	

Test item 采样项目	Lab No. 标签号	Bottle type and size 样品瓶规格	Treatment 现场处理情况	Multiple sampling (Y/N)	Note 备注
%Solid,Paint Filter Test 固含量,油漆过滤测试	S301	500ml PE bottle 500ml 聚乙烯瓶	-	N	
Cyanide 氰化物	S302	1L PE bottle 1L 聚乙烯瓶	Adding NaOH to pH >12, adding 0.1mL 10% Na ₂ S ₂ O ₃ solution 用氢氧化钠调节水样 pH 大于12,再加 0.1mL10%硫代硫酸钠溶液	N	
Feacal Coliform 粪大肠菌群	S303	Aseptic Bags 无菌袋	Adding 0.1mL 10% Na ₂ S ₂ O ₃ solution, keep in the dark 加0.1mL 10%硫代硫酸钠溶液,避光保存	N	
Heavy metals 重金属	S304	1L PE bag 1L PE袋	Acidify to pH< 2 with nitric acid 加硝酸调节水样 pH 小于 2	N	
AP/APEO, COC, PAHs 烷基酚/烷基酚聚氧乙烯 醚、氯甲苯、多环芳烃	S305	1L* 3 PE bag 1L* 3 PE 袋	0.008% Na ₂ S ₂ O ₃ V/W 加 0.008% (体积重量比)硫 代硫酸钠溶液袋子	N	



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Order No. 项目编号: 326034682 (Sampling Report)

Sampling Point Indication (Map)

采样点信息

GPS Data: Discharged Wastewater: 28.937687, 111.750051

Raw Wastewater: 28.937142, 111.750092 Incoming water: 28.937970, 111.750214

Sludge: 28.937967, 111.750236

废水为非直接排放

下游的集中废水处理厂名称为:常德清蓝水务有限公司地址为:湖南常德经开区樟木桥街道五一村新包垸11组。

实际采样工厂的 GPS 卫星定位地图:



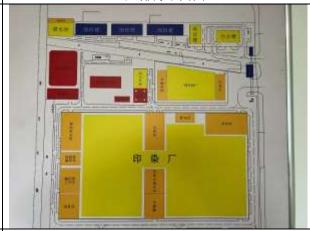


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Order No. 项目编号: 326034682 (Sampling Report)

Factory Gate 工厂大门

Factory Layout 工厂排污平面图



Other Factory Photo 其它工厂图片-内部环境

Other Factory Photo 其它工厂图片-内部环境



Other Factory Photo 其它工厂图片-内部环境



Other Factory Photo 其它工厂图片-内部环境







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Order No. 项目编号: 326034682 (Sampling Report)

Sampling Photo

采样点照片





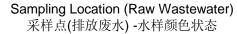
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Order No. 项目编号: 326034682 (Sampling Report)

Sampling Location (Discharged Wastewater) 采样点(排放废水)-采样环境



Sampling Location (Discharged Wastewater) 采样点(排放废水)- 采样前





Sampling Location (Discharged Wastewater) 采样点(排放废水) -采样后



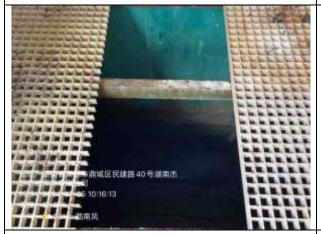




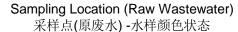
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Order No. 项目编号: 326034682 (Sampling Report)

Sampling Location (Raw Wastewater) 采样点(原废水) -采样环境



Sampling Location (Raw Wastewater) 采样点(原废水) -采样前





Sampling Location (Raw Wastewater) 采样点(原废水) -采样后







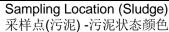
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Order No. 项目编号: 326034682 (Sampling Report)

Sampling Location (Sludge) 采样点(污泥) -采样环境



Sampling Location (Sludge)





Sampling Location (Sludge) 采样点(污泥) -采样后







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Sampler and ZDHC Accredited no.

采样员及 ZDHC 认证编号:

Checked By 审核人:

Signature and stamp by Factory

工厂人员签名及盖章:

Jimmy Zhang C74D106819958

Robin Hong

154 The 24 -

Date 日期:

05 July 2024

Date 日期:

08 July 2024

Date 日期:

05 July 2024

Sample storage conditions 样品保存条件	☑ Refrigeration(0-4°C)	□ Frozen 冷冻	□ RT 常温	□ Oth	ners 其他
Sample send temperature/ status/ count 样品送出温度、状态、数量	1箱良好4度	Sent by 送样人	Jimmy Zhang	Date 日期	05 July 2024
Sample delivery temperature/ status/ count 样品接收温度、状态、数量	4度良好一箱	Received by 接收人	Eric Hu	Date 日期	08 July 2024

- END -结束



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

- Scope
 These General Terms and Conditions of Business of TUV Rheinland in Greater China ("GTCB") is made between the client and one or more member entities of TUV Rheinland in Greater China is applicable as the case may be ("I'UV Rheinland"). The Greater China hereof refers to the regions within the territories of China. The Client hereof includes:

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

 The following terms and conditions of proceedings of the contract under the applicable law. The following terms and conditions of provisions the vision and conditions of the contract under the applicable two. The following terms and conditions of the client daily surface and similar services as well as an actifular services and services and services are services as well as an actifular services and services and services and services and services and services are services as well as an actifular services and services and services and services are services as well as an actifular services and services and services and services are services as well as an actifular services and services and services are services as well as an actifular services and services and services are services as well as an actifular services and services are services as well as a complete to the contract even if TUV Rheinland does not explainly object to them. In the context of an ongoing business relationship with the client, this CTGB shall also apply to future contracts with the client without TUV Rheinland having to refer to them separately in each individual case.
- (ii)
- 13

Unless otherwise agreed, all quotations submitted by TÜV Rheinland can be changed by TÜV Rheinland without notice prior to its acceptance and confirmation by the other party.

Coming into effect and duration of contracts

- Coming into effect and duration of contracts

 The contract shall come into effect for the agreed terms upon the quotation letter of TÜV.

 Rhenland 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 without receiving a quotation from TÜV Rheinland (quotation), TÜV Rheinland without receiving a quotation from TÜV Rheinland (quotation), TÜV Rheinland si, in its sole discretion, erfeitled to accept the order by giving written notice of such acceptance (including notice sent via efectronic means) or by performing the requested services.

 The contract term starts upon the coming into effect of the contract in sociodance with article 3.1 and shall continue for the term agreed in the contract.

 If the contract provides for an existenci of the common of the contract term, the contract term will be extended the contract term, the contract term will be extended month notice prior to the end of the contractual term.
- 3.3

- 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 ostaits, hen the written confirmation of order by TÜV Rheinland ostaits, hen the written confirmation of order by TÜV Rheinland ostaits, hen the written confirmation of order by TÜV Rheinland ostaits, hen the service description (e.g., checking the correctness and functionality of partie, products, proprocesses, installations, organizations not Island in the service description, as well as the intended use and application of such) are not owed. In particular, no responsibility is assumed for the design, selection of materials, construction or intended use of an examined part product, process or plant, unless this is expressly stated in the order.
- 4.3
- The agreed services shall be performed in compliance with the regulature is in a contract is entered into.

 TÜV Rheinland is entitled to determine, in its sole discretion, the method and nature of the assessment unbest scherwise agreed in writing or if mandatory provisions require a specific procedure to be followed.

 On execution of the Nette shall be no simultaneous assumption of any guarantee of the On execution of the willy) and working order of either tested or exemined 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. TÜV Rheinland shall assume no responsibility for the construction, selection of materials and assembly of installations examined, nor for the use and application in accordance with regulations, unless these questions are expressly covered by the contract.

- in particular, TÜV Rheinland shall assume no responsibility for the construction, selection of materials and assembly of installations examined, not for their use and application in accordance with requisitions, unless these questions are expressly covered by the contract.

 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, responsible to the safety programmes or safety regulations on which the inspections are based, responsible to the safety programmes or safety regulations on which the inspections are based, responsible to the contract, with a written notice to the client, TÜV Rheinland shall be entitled to additional renumeration for resulting additional expenses.

 The services to be provided by TÜV Rheinland under the contract are agreed exclusively with the contract are services to be provided by TÜV Rheinland under the contract are agreed exclusively with the contract and approximate the contract are services. This also applies if the client passes on work results in full or in extracts to that parties in accordance with clause 11. A provided the contract and the center services are not directly provided by rule (provided by any other third partyles) and contract and the direct services actually to be provided by our company in but services are not directly provided by TÜV Rheinland will provide any contract and the direct services actually to be provided by our company in the service provided by any other third appring lead of the contract, the client hereby agrees that TÜV Rheinland shall not bear any contract and the direct and contract and the force services are not directly provided

- 5.5
- Performance periods/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 fleeing confirmed as binding by TUV Rehination to writing, shall not commence until the Archies 1.1 and 5.2 also apply, even whost or spread to the periods shall not commence until the Archies 5.1 and 5.2 also apply, even whost or express approval by the client, to all extensions of agreed periods/dates of performance not caused by TUV Rehelman. TUV Rehination and or responsible for a delay in performance, in particular if the client has not input to the periods of t
- to resume performance.

 The client is obliged to comply with legal, officially prescribed and/or by the accreditor prescribed deadlines, it is the client's obliged to comply with legal, afficially prescribed and/or by the accreditor prescribed deadlines. It is the client's responsibility to agree on performance dates with TUV Rheinland, which enable the client to comply with the legal and/or officially prescribed deadlines. TUV Rheinland assumes no responsibility in this respect unless TUV Rheinland expressly agreed in writing aspectically stating that enumpting the deadlines is the contractual obligation of TUV.

- 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 $T\bar{U}V$ Rheinland. 6.1
- Design documents, supplies, suxiliary 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. And the client represents and varrants that:

- b) the product, service or management system to be certified complies with applicable laws and regulations; and
- 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
- 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 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.

- 7.1
- 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 sagreed in writing, invoicing shall be made in accordance with the price list of TUV Phenianda valid at the time of performance. Unless otherwise agreed, work shall be invoiced according to the progress of the work. If the execution of an order actuation 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. TUV Rheinland may demand payments on account or in installments.

- All invoice amounts shall be due for payment within 30 days of the invoice date without deduction on receipt of the invoice. No discounts and rebates shall be granted. Payments shall be made to the basis, account of TUV Rhenland as indicated on the invoice, stating the invoice and client numbers. Stating the invoice and client numbers. Stating the invoice and client numbers. Stating the invoice and client numbers of the properties of the properties of the properties of the properties of the publicy amounted by a reputable commercial bank in the country where TUV Rheinland is located. At the same time, TUV Rheinland reserves the right to claim further demanges.
- applicable short term loan interest fave puocus princeres up a reposeer connected and the country where TUV Rheisland is located. At the same time, TUV Rheinland reserves the right the country where the term of the invoice despite being granted a reasonable grace period. TUV Rheinland shall be entitled to cancel the contract, withdraw the certificate, claim damages for non-performance and refuse to continue performance of the contract. The provisions set forth in article & I shall also apply in cases involving returned cheques, cessation of payment, commencement of insolvency proceedings against the claimst assets or contract to the contract of the contract of the contract of payment, commencement of insolvency proceedings against the claimst assets or contract of the contract of the contract of the contract of the contract of payment, commencement of insolvency proceedings against the claimst assets or contract of the contract
- ets.
 ections to the invoices of TÜV Rheinland shall be submitted in writing within two weeks of epit of the invoice.

TÜV Rheinland shall be entitled to demand appropriate advance payments. TÜV Rheinland shall be entitled to raise its fees at the beginning of a month if overheads and/or purchase costs have heroteader. In this case, TÜV Rheinland shall notify the client in writing of the upper purchase to the proper purchase the propered purchase the proper purchase the proper purchase the proper pu

Only legally established and undisputed claims may be offset against claims by TÜV Rheinland. TÜV Rheinland shall have the right at all times to setoff any amount due or payable by the client including but not limited to setoff against any less goal by the client under any contracts agreement and or orders/quotations reached with TÜV Rheinland.

- 9.1
- Any part of the work result ordered which is complete in itself may be presented by TÜV Rhenland for acceptance as an instalment. The client shall be obliged to accept it immediately. 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 retures acceptance within this period stating at least one unfundental breach of contract by TÜV.
- Rheinland.

 The client is not entitled to refuse acceptance due to insignificant breach of contract by TÜV
 Rheinland. 9.3
- Rheinland. If acceptance is excluded according to the nature of the work performance of TÜV Rheinland, the completion of the work shall take its place. During the Follow-Audit stage, if the client was unable to make use of the time windows provided for within the scope of a certification procedure for auditing/performance by TÜV Rheinland and the certificate is therefore to be without (e.g. performance of surveillance audits), or if the client certification promoted the procedure of surveillance audits), or if the client certification shallow of the certification procedure of surveillance audits), or if the client certification is interested to extend the procedure of surveillance audits), or if the crief cannot as compensation for expenses. The client reserves the right to prove that the TÜV Rheinland has incurred no damage whatsoever or only a considerably lower damage than the above lump sum.
- Rhehland has incurred no damage whatsoever or usy a wannounce, ..., above lump sum, ar as the client has undertaken in the contract to accept services, TUV Rheinland shall also be entitled 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 TUV Rheinland has incurred no damage whatsoever or only a considerably lower damage than the above mentioned lump sum.

- dentiality

 For the purpose of these terms and conditions, "confidential information" means all know-how, trade secrets, documents, images, drawings, expertise, information, dais, test results, sports, and secrets, documents, images, drawings, expertise, information, dais, test results, sports, and marketing techniques and materials, tangible or intangible, that are supplied, transferred or indevise disclosed by one Party (the "disclosing party") to the other Party (the "receiving party"), in writing or orally, in printed or electronic format. Confidential information is expressly not the data and know-how collected, complete or otherwise disclosined by TD (Febrahard flore)-personal confidential information is expressly not the data and know-how collected, complete or otherwise disclosined by TD (Febrahard flore)-personal confidential information is expressly not the data and know-how collected, complete or otherwise disclosined by TD (Febrahard flore)-personal confidential information is disclosed party in the provision of services 10.2. The disclosing party shall mark all confidential information is disclosed orally, the receiving party shall be appropriately informed in advance and the disclosing party shall confirm in writing the confidential information is disclosed orally, the receiving party shall be appropriately informed in advance and the disclosing party shall confirm in writing the confidential information to make the client child and any confidential information to TDV Rheinland. Instead, the client shall avoid using any third party platform and/or system (e.g. Wechat, etc. Unauthorized by TDV Rheinland, bread of the client shall avoid unique grave the day transmits or otherwise discloses to the client shall avoid unique grave through the confidential information to TDV Rheinland. Instead, Lindau and which is created during performance of work by TDV Rheinland. Instead, Lindau shall be appropriately informed in a secretary and the confidential information or which the disclosing party transmits or
- 10.3
- 10.5 a)
- 10.7

11.1

- TÜV Rheinland shall retain all exclusive copyrights in the reports, expert reports/opinions, test reports/results, results, calculations, presentations etc. prepared by TÜV Rheinland, unless otherwise agreed by the parties in a separate agreement. As the owner of the copyrights, TÜV Rheinland is free to grant others the right to use the work results for individual or all types of use
- Rhehinal is free to grant others the right to use the work results for individual or all types of use (right of use). 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, export reports/opinions, test apports/results, results calculations, presentations etc. prepared within the scope of the contract for the contractually agreed purpose. subject to Mil proyment of the renumeration agreed in tenuous left of clause 11.2 of the GTCB is subject to Mil proyment of the renumeration agreed in tenuous left of the Client may only pass on the work results in Unless TUV Rheinland has given its provivation correct to the partial passing on of work results.
- 11.4
- work results in full unless 1UV Rhenland has given its pror written consent to the partial passing on I work results in Societies and public exploration of work results for schedinging purposes or any further use of Arry publication the exploitation of the work results for schedinging purposes or any further use of TUV Rhenland need the prior written approved of TUV Rhenland and certification rules, etc.).

 TUV Rhenland may revoke a conce given approval according to clause 11.5 at any time without stating reasons. In this case, the client is colleged to stop the transfer of the work results immediately afth own expense and, as first any sousher, to whicher work results immediately afth own expense and, as first any sousher, or which results similar document of TUV Rhenland to publication of the work results in the consent of TUV Rhenland to publication of the work results in the content of TUV Rhenland comprised to publication of the work results desired to see the corporate logo, corporate deagn or rescheding from the CTUV Rhenland.

Liability of TÜV Rheinland 12.1

- Liability of TÜV Rheinland

 Irraspective of the legal basis, to the fullest extent permitted by applicable law, in the event of a breach of contractual obligations or lord, the liability of TÜV Rheinland for all damages, bases and reimbursament of expenses caused by TÜV Rheinland, its legal representatives and/or employees shall be limited to: (i) in the case of a contract with a fixed overall feet, these times the representatives and the representatives and/or employees shall be limited to: (ii) in the case of a contract expressly charged on a time and material basis, a maximum of 20,000 Euror or equivalent amount in local currency; and (iv) in the case of a familieror, agreement that provides for the possibility of placing individual orders, three times of Nowthatsanding the above, in the event that the total and accumulated liability calculation and accumulated liability of TÜV Rheinland shall be only limited to and shall not exceed the said 2.5 Million Euro or equivalent amount in local currency.

 In the case of the complex provisions exceeds 2.5 Million Euro or equivalent amount in local currency. In the case of the complex provisions agents. Such initiation shall not apply to damages for a person's death, physical injury or liness. In cases involving a Indiamental broach of contract, TUV Rheinland or its vicalized or lines and contract and because of the case of the cas

When 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. The performance of a contract with the client is subject to the provisio that there are no obstacles to performance due to national or international foreign trade legislations or embargos and/or the performance due to national or international foreign trade legislations or embargos and/or the performance due to national or international foreign trade legislations or embargos and/or the performance of the national or international foreign trade legislations or embargos and/or the performance of the national or the performance of the performance of the national performance of the national performance of the performance of the national performance of the national performance of the performance of 13.1

sanctions. In the event of a violation, TÜV Rheinland shall be entitled to terminate the contract with immediate effect and the client shall compensate for the losses incured thereof by TÜV Rheinland.

Data protection notice

The client understands and agrees that TÜV Rheinland processes personal data (including but not limited to penceal information) of the client and its related parties (including but not limited to the client and its related parties (including but not limited to the client and its related parties (including but not limited to the client client or process the personal data that the client collected or processes day itself and transferred to TÜV Rheinland. For certain services, we may also process sensitive personal data. TÜV Rheinland will use and process the data in accordance with the relavant legal basis. It any personal data has to be disclosed or transferred to any hird party or any overseas party outde of the data has be disclosed or transferred to any hird party or any overseas party outde of the data has be disclosed or transferred to any hird party or any overseas party outde of the data has be disclosed or transferred to any hird party or any overseas party outde of the data has be disclosed or transferred to any hird party or any overseas party outde of the data has be disclosed or transferred to any hird party or any overseas party outde of the data has be disclosed or transferred to any hird party or any overseas party outde of the data has be disclosed or transferred to any hird party or any overseas party outde of the data has been depended to the data of the personal data. The personal subject to the data subject. TÜV Rheinland will early outdened to the processing plant the right to revoke their consent at any time with effect for the future, as well as the right to file a complaint with the content of the processing plant and protection information. You can contact the Group Data Protection Officer of TÜV Rheinland W. Jernal at datasynotection followers or by poot at the following address: TÜV Rheinland W. Jernal and Jernal and Jernal and Jernal address processing address of TÜV Rheinland W. Jernal and Jernal address processing address of TÜV Rheinland W. Jernal and Jernal

- 15.2
- tion of test material and documentation

 The test samples submitted by the client to TÜV Rheinland for testing will be scrapped following testing or will be returned to the client at the client's experies. The only exceptions are test stating requirement with the client.

 In storage or the basis of sistutions requirement with the client in storage on the basis of sistutions regulations or of another agreement with the client.

 Charges apply if the test samples are stored at the premises of TÜV Rheinland. The cost of placing a test sample into storage will be disclosed to the client in the quotation. If reference samples or documentations are given to the client to be placed in storage at their premises, the reference samples or documentations are given to the client to be placed in storage at their premises, the reference samples ander documentation, any liability claims for material and pecuniary damage resulting from the respective testing and certification that is brought forward by the client against TUV Rheinland as allow olded.

 The retention period for the documentation shall be 10 (ten) years after the expiry of the test mark and GS mat contributions. The cost of the handover and dispatch of the test samples for storage on the client's premises are more by the client against will be liable for the loss of test samples or reference samples from the laboratories or warehouses of TUV Rheinland only in case of gross negligence.

- Ination of the contract

 Nowthstanding clause 3.3 of the GTCB, TÜV Rheinland and the client are entitled to terminate the contract in set entitley or, in the case of services combined in one contract, each of the combined parts of the contract in set entitley or, in the case of services combined in one contract, each of the combined parts of the contract individually and independently of the contract, each of the combined parts of the contract individually and independently of the contract, each of the contract with six (8) months individually and independently of the contract individually and to a loss or a suspension of its accreditation or notification.

 For good causes, TÜV Rheinland may consider giving a written notes to the client to terminate the contract without bearing any liabilities and the client shall pay the relevant service less for the contract without bearing any liabilities and the client shall pay the relevant service less for the services provided by TÜV Rheinland due to the termination due to the contract. The discression as the conditions within the company which are relevant for cordification or size of such changes;

 b) the client does not immediately notly TÜV Rheinland or changes in the conditions within the company which are relevant for cordification mark or uses it is violation of the contract.

 b) the client misuses the certificate or certification mark or uses it is violation of the contract.

 c) 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 contracts and the contract is a service.

 c) If TÜV Rheinland, for reasons be expected to contribute the contract and considerably endangered and TÜV Rheinland contracts and the entitle three is an activity of the contract does not belong to the insurance coverage applicable to TÜV Rheinland, and TÜV Rheinland shall be entitled to a lump-aum contractation or notification, or other.

 c) TÜV Rhein

- Majoura*

 Majour

- hip The Parties are bound to perform their contractual duties even if events have rendered performance more onerous than could reasonably have been anticipated at the time of the conclusion of the

- The Parties are bound to perform their contractual duties even if events have rendered performance more ones than could reasonably have been anticipated at the time of the conclusion of the Monthitstanding paragraph 1 of this Clause, where a Party proves that:

 (a) the continued performance of its contractual duties has become excessively onerous due to an event beyond its reasonable control which it could not reasonably have been expected to have taken into account at the time of the conclusion of the contract and that its corresponders, the Parties are (b) it could not reasonably here aexided or overcome the event or its engolistic elementate contractual terms which reasonably allow to overcome the consequences of the event.

 Where Clause 182 applies, but where the Parties have been unable to agree alternative contractual terms as provided in that paragraph, the Party mixed pits Clause is entitled to terminate the contract, but cannot request adaptation by the judge or arbitrator without the agreement of the other.

- invalidity, written form, place of jurisdiction and dispute resolution.

 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. Should one or several of the provisions under the contract and/or less terms and conditions be Should one or several of the provisions under the contract and/or less terms and conditions to the state of 19.2 19.3

- ITUV Rheritiand in question is legally registered and existing in 1-mm.

 The hereby agree that the contract and these terms and conditions shall be governed by the laws of Takwar.

 It TOV Rheritind in question is legally registered and existing in Hong Kong, the contracting is TOV Rheritind in the contract and these terms and conditions shall be governed by the laws of Hong Kong.

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

 Unless otherwise seputated in the contract, if no cellement or no agreement in respect of the Unless otherwise seputated in the contract, and the contract and the state of the straing of the dispute, the dispute shall be submitted:

 In the case of TUV Rheritation in question being legally registered and existing in the People's Republic of China, to China international Economic and Trada Arbitration Commission (CETAC) submitted. The arbitration shall take place in Beijing, Shenghai, Shenchen or Chongqing as appropriately chosen by the claiming party, in the case of TUV Rheritation for question being legally registered and existing in Takwan, to Chinese Arbitration Association, Tages to be arbitrated in accordance with is then current Rules in the case of TUV Rheritation for legally registered and existing in Takwan, to Chinese Arbitration Association. Tages to be arbitrated in accordance with is then current Rules in the case of TUV Rheritation for legally registered and existing in Toky Rong, to Hong Kong, to Hong Kong to Hong Kong, to Hong Kong, to Hong Kong to Hong Ko