



TEST REPORT

Technical Report / 技术报告

(6621)102-1418

April 25, 2021

Date Received
收到时间:

April 12, 2021
2021 年 4 月 12 日

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Factory Company Name:

Hangzhou Hualun Printing & Dyeing Co., Ltd

公司名称:

杭州华伦印染有限公司

Factory Address:

No. 155 Zhenzhong Road, Dangwan Town, Xiaoshan District, Hangzhou City, China

公司地址:

杭州市萧山区党湾镇镇中路 155 号

Project No.:

N/A

项目编号:

Client Reference No.:

N/A

客户编号:

Sample Type:

Wastewater - Time-Weighted Composite Grab Samples*

样品类型:

废水 - 加权复合取样

Sample Pick Up Date:

April 12, 2021

采样时间:

2021 年 4 月 12 日

Discharge Type:

Indirect Discharge

排放类型:

间接排放

Wastewater Discharge to:

Centralized ETP

废水排放去向:

集中污水处理设施

Off-site ETP name (if applicable):

Dangwan Sewage Treatment plant

外部污水处理厂名称

党湾污水处理厂

Off-site ETP address (if applicable):

Dangwan Town, Xiaoshan District, Hangzhou City

外部污水处理厂地址

杭州市萧山区党湾镇

Local Regulation: / Ordinance / requirements related to wastewater discharged are followed:

GB 4287-2012

当地法规: / 条例/需遵循的废水排放相关要求

On-Site Effluent Treatment Plant (ETP):

No

工厂内部污水处理设施:

否

Test Period:

April 12, 2021 to April 25, 2021

测试周期:

2021 年 4 月 12 日至 2021 年 4 月 25 日

Testing Option:

Option 2 – Incoming Water, Raw / Untreated Wastewater

测试选项:

选项 2 - 进水, 原始废水

Sample Description:

样品描述:

I001) Colorless liquid/无色液体– Incoming water/进水

I002) Black liquid/黑色液体–Raw, untreated wastewater/ 原始废水



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REMARK

If there are questions or concerns on this report, please contact the following persons:

若有任何疑问或咨询, 可通过下述联络方式与我们联系

General enquiry and invoicing

常规咨询和发票

Ms. Shelly Lin

林慧贤女士

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Technical enquiry-Chemical

化学技术问题

Mr. Steven Han

韩政先生

(021) 24081838

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This report shown the test result of the auxiliary chemical and/or raw material samples, which collected during particular factory audit. The results of this report shall not be used for any regulatory compliance purposes.

此报告所示为特定工厂审核时收集的化学助剂和/或原材料样品的结果, 此报告的结果不得用于任何遵循法规的目的。

* The sampling is agreed with client.

采样已经过客户允许

Incoming water sampling is mixed with River water and Tap water in a ratio of 4:1

进水采样由河水和自来水按照 4: 1 比例混合采样

BUREAU VERITAS

CONSUMER PRODUCTS SERVICES DIVISION (SHANGHAI)

必维申美商品检测(上海)有限公司

Laboratory Test Location 实验室检测地址:

No.368,Guangzhong Road, Zhuanqiao Town, Minhang, Shanghai.

上海市闵行区光中路 368 号

No.168, Guanghua Road, Zhuanqiao Town, Minhang, Shanghai.

上海市闵行区光华路 168 号

PREPARED BY: _____ Shelly

Steven Han 韩政
Technical Manager 技术经理

Executive Summary/执行摘要

1A) Conventional Parameters/常规参数	I001	I002
Temperature/温度	NR	N/A
TSS/总悬浮固体		□
COD/化学需氧量		■
Total-N/总氮		■
pH Value/酸碱值		■
Color [m ⁻¹] (436nm; 525nm; 620nm)/色度		N/A
BOD ₅ /五日生化需氧量		■
Ammonium-N/氨态氮		■
Total-P/总磷		■
AOX/可吸附有机卤化物		□
Oil and Grease/油和油脂		N/A
Phenol/苯酚		N/A
Coliform/大肠菌群		N/A
Persistent Foam /持泡性		N/A
ANIONS – Cyanide/阴离子-氰化物		N/A
ANIONS – Sulfide/阴离子 - 硫化物	N/A	■
ANIONS – Sulfite/阴离子 - 亚硫酸盐	NR	N/A
1B) Conventional Parameters –METALS /常规参数 - 金属	N/A	■

Note / Key 注释 :

- □ – Meet Foundational Limit 符合基础限值/ Meet discharge license criteria 符合排放许可要求
- ■ – Exceeding Foundational Limit 超出基础限值/ Exceeding discharge license criteria 超出排放许可要求
- NR – Not Requested 不需要/ Not required 不需要
- N/A – Not Applicable 不适用



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ZDHC MRSL Substances/ZDHC 生产限用物质清单	I001	I002
2A) APs and APEOs/烷基酚及烷基酚聚氧乙烯醚	NR	o
2B) Chlorobenzenes and Chlorotoluenes/ 氯化苯和氯甲苯	NR	o
2C) Chlorophenols/氯酚	NR	o
2D) Azo Dyes/偶氮染料	NR	o
2E) Carcinogenic Dyes/致癌染料	NR	o
2F) Disperse Dyes/分散染料	NR	o
2G) Flame Retardants/阻燃剂	NR	o
2H) Glycols/乙二醇	NR	o
2I) Halogenated Solvents/卤化溶剂	NR	o
2J) Organotin Compounds/有机锡化合物	NR	o
2K) Perfluorinated and Polyfluorinated Chemicals/ 全氟化合物和多氟化合物	•	•
2L) Phthalates/邻苯二甲酸盐	NR	o
2M) Poly Aromatic Hydrocarbons/多环芳香烃	NR	o
2N) Volatile Organic Compounds/挥发性有机化合物	NR	o

Note / Key 注释 :

- • – Detected 检出
- o – Not Detected 未检出
- NR – Not Requested 不需要
- N/A – Not Applicable 不适用



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Objective/目标

The environment samples were tested for below parameters. 环境样品按照下列参数检测

- 1A) Conventional Parameters/常规参数
- 1B) Conventional Parameters – METALS/常规参数-重金属
- 2A) APs and APEOs/烷基酚及烷基酚聚氧乙烯醚
- 2B) Chlorobenzenes and Chlorotoluenes/氯化苯和氯甲苯
- 2C) Chlorophenols/氯酚
- 2D) Azo Dyes/偶氮染料
- 2E) Carcinogenic Dyes/致癌染料
- 2F) Disperse Dyes/分散染料
- 2G) Flame Retardants/阻燃剂
- 2H) Glycols/乙二醇
- 2I) Halogenated Solvents/卤化溶剂
- 2J) Organotin Compounds/有机锡化合物
- 2K) Perfluorinated and Polyfluorinated Chemicals/全氟化合物和多氟化合物
- 2L) Phthalates/邻苯二甲酸盐
- 2M) Poly Aromatic Hydrocarbons/多环芳香烃
- 2N) Volatile Organic Compounds/挥发性有机化合物

Sampling Plan

Basically, two environment samples were sampled per factory, including 1) Incoming water and 2) Raw, untreated wastewater. Total number of sample collected will be depended on the actual factory facilities and manufacturing processes. 每个工厂需采集的样品主要有两种 1)进水和 2) 原始废水。具体每种样品采集数量需根据工厂实际的生产设施和生产流程来决定。

Method of sampling used is time-weighted composite grab samples (agreed with client.). Composite sampling shall be performed for no less than six hours, with no more than one hour between discrete samples. Each discrete sample shall be of equal volume. Wastewater and freshwater samples should, as much as possible, be collected simultaneously, during the time that PU is in normal operation. The sampling shall aim to analyse the snapshot of water quality characteristics of the operating PU. Under no circumstance shall samples be taken during times when the production process is not running or the wastewater is diluted due to heavy rainfall, etc.

采样方法是时间加权复合抓取采样方法(经客户同意)。混合采样时间应不低于 6 小时,且每次取样的间隔不超过 1 小时。每次取样应保持在同一体积。污水和进水样品应尽可能同时采集,在此期间工厂应处于正常运行状态。采样的目的是为了看到工厂在实际运行状态下水质的特点。而当处于生产流程没有运行或废水被大雨所稀释等情况下时不应采集样品。

Remark 备注:

- Sampling procedure is with reference to below standards 采样流程参考如下标准:
 - 1) South Australia EPA Guidelines (June 2007), Regulatory Monitoring and Testing Water and Wastewater Sampling.
 - 2) Australia EPA (Victoria) Guideline (June 2009), Sampling and Analysis of Waters, Wastewaters, Soils and Wastes.
 - 3) ISO 5667-3:2003, Water Quality - Sampling - Part 3: Guidance on the Preservation and Handling of Water Samples.
 - 4) ASTM D3976-92 (Reapproved 2010), Standard Practice for Preparation of Sediment Samples for Chemical Analysis.
- Field data records are attached in Appendix C



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Test Result/测试结果

1A) Conventional Parameters/常规参数

Temperature/温度

Test Method : Measurement by thermometer GB/T 13195
测试方法 : 由温度计测量 GB/T 13195

Tested Item(s)	Result	Unit	Conclusion
I002	36.1	deg. C/ 摄氏度	DATA/数据

Note/注释:

deg. C = degree Celsius (°C)/摄氏度
Discharge License Criteria/排放标准: N/A

Total Suspended Solids (TSS)/ 总悬浮固体

Test Method : Reference to GB/T 11901
测试方法 : 参考 GB/T 11901

Tested Item(s)	Result	Unit	Conclusion
I002	17 Comply with discharge license/符合排放许可	mg/L/ 毫克/升	DATA/数据

Note 注释:

mg/L = milligram per liter/毫克每升
Discharge License Criteria/排放标准: ≤100

Chemical Oxygen Demand (COD)/ 化学需氧量

Test Method : Reference to HJ828-2017
测试方法 : 参考 HJ828-2017

Tested Item(s)	Result	Unit	Conclusion
I002	1.48x10 ³ Not comply with discharge license/ 不符合排放许可	mg/L/ 毫克/升	DATA/数据

Note 注释:

mg/L = milligram per liter/毫克每升
Discharge License Criteria/排放标准: ≤200



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Total Nitrogen (Total-N)/总氮

Test Method : Reference to HJ 636
测试方法 : 参考 HJ 636

Tested Item(s)	Result	Unit	Conclusion
I002	78.6 Not comply with discharge license/ 不符合排放许可	mg/L/ 毫克/升	DATA/数据

Note 注释:

mg/L = milligram per liter/毫克每升
Discharge License Criteria/排放标准: ≤30

pH Value/酸碱值

Test Method : Reference to GB/T 6920
测试方法 : 参考 GB/T 6920

-	Unit	Result
Test Item(s)	-	I002
Parameter	-	-
Temp. of sample	deg. C	19.9
pH value of sample	-	9.6 Not comply with discharge license/ 不符合排放许可
Conclusion	-	DATA

Note 注释:

Temp. = Temperature/温度 deg. C = degree Celsius (°C)/摄氏度
Discharge License Criteria/排放标准: 6-9

Color [m⁻¹] (436nm; 525nm; 620nm)/色度

Test Method : With reference to ISO 7887-B
测试方法 : 参考 ISO 7887-B

Tested Item(s)	Result	Unit	Conclusion
I002	84.2;48.7;39.9	m ⁻¹	DATA/数据

Note 注释:

Discharge License Criteria/排放标准: N/A



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Biochemical Oxygen Demand (BOD₅)/五日生化需氧量

Test Method : Reference to HJ 505
测试方法 : 参考 HJ 505

Tested Item(s)	Result	Unit	Conclusion
I002	330 Not comply with discharge license/ 不符合排放许可	mg/L/ 毫克/升	DATA/数据

Note 注释:

mg/L = milligram per liter/毫克每升
Discharge License Criteria/排放标准: ≤50

Ammonium Nitrogen/氨态氮

Test Method : Reference to HJ 535
测试方法 : 参考 HJ 535

Tested Item(s)	Result	Unit	Conclusion
I002	70.2 Not comply with discharge license/ 不符合排放许可	mg/L/ 毫克/升	DATA/数据

Note 注释:

mg/L = milligram per liter/毫克每升
Discharge License Criteria/排放标准: ≤20

Total Phosphorus (Total-P)/总磷

Test Method : Reference to GB/T 11893
测试方法 : 参考 GB/T 11893

Tested Item(s)	Result	Unit	Conclusion
I002	4.08 Not comply with discharge license/ 不符合排放许可	mg/L/ 毫克/升	DATA/数据

Note/注释:

mg/L = milligram per liter/毫克每升
Discharge License Criteria/排放标准: ≤1.5



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Adsorbable Organic Halogen (AOX)/ 可吸附有机卤化物

Test Method : Reference to HJ/T 83
测试方法 参考 HJ/T 83

Tested Item(s)	Result	Unit	Conclusion
I002	0.48 Comply with discharge license/符合排放许可	mg/L/ 毫克/升	DATA/数据

Note 注释:

mg/L = milligram per liter/毫克每升
Discharge License Criteria/排放标准: ≤12

Oil and Grease/油和油脂

Test Method : Reference to HJ 637
测试方法 参考 HJ 637

Tested Item(s)	Result	Unit	Conclusion
I002	10.6	mg/L/ 毫克/升	DATA/数据

Note 注释:

mg/L = milligram per liter/毫克每升
Discharge License Criteria/排放标准: N/A

Phenol/苯酚

Test Method : Reference to HJ 503
测试方法 参考 HJ 503

Tested Item(s)	Result	Unit	Conclusion
I002	<0.0003	mg/L/ 毫克/升	DATA/数据

Note 注释:

mg/L = milligram per liter/毫克每升
Discharge License Criteria/排放标准: N/A

Coliform/大肠菌群

Test Method : Reference to GB/T 5750.12
测试方法 参考 GB/T 5750.12

Tested Item(s)	Result	Unit	Conclusion
I002	>1600	Bacteria /100 mL 细菌数/100 毫升	DATA/数据

Note 注释:

bacteria/100 mL = bacteria per 100 milliliters/每 100 毫升细菌数
Discharge License Criteria/排放标准: N/A



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Persistent Foam /持泡性

Test Method : Visual
测试方法 : 目测

Tested Item(s)	Result	Unit	Conclusion
I002	No foam 无泡沫	-	DATA/数据

ANIONS – Cyanide 阴离子-氰化物

Test Method : Reference to HJ 484
测试方法 : 参考 HJ 484

Tested Item(s)	Result	Unit	Conclusion
I002	<0.02	mg/L/ 毫克/升	DATA/数据

Note 注释:

mg/L = milligram per liter/毫克每升
Discharge License Criteria/排放标准: N/A

ANIONS – Sulfide/阴离子-硫化物

Test Method : Reference to GB/T 16489
测试方法 : 参考 GB/T 16489

Tested Item(s)	Result	Unit	Conclusion
I001	0.010	mg/L/ 毫克/升	DATA/数据
I002	0.99 Not comply with discharge license/ 不符合排放许可	mg/L/ 毫克/升	DATA/数据

Note 注释:

mg/L = milligram per liter/毫克每升
Discharge License Criteria/排放标准: ≤0.5

ANIONS – Sulfite/阴离子-亚硫酸盐

Test Method : Reference to ISO 10304-3
测试方法 : 参考 ISO 10304-3

Tested Item(s)	Result	Unit	Conclusion
I002	<0.2	mg/L/ 毫克/升	DATA/数据

Note 注释:

mg/L = milligram per liter/毫克每升
Discharge License Criteria/排放标准: N/A



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1B) Conventional Parameters – METALS 常规参数-重金属

Heavy Metals/重金属	I001 (mg/L)/ 毫克/升	I002 (mg/L)/ 毫克/升
Antimony(Sb)/锑 Discharge License Criteria/排放标准: ≤0.1	0.007	0.299 Not comply with discharge license/ 不符合排放许可
Chromium(Cr), total/总铬 Discharge License Criteria/排放标准: N/A	0.001	0.101
Cobalt(Co)/钴 Discharge License Criteria/排放标准: N/A	ND	0.003
Copper(Cu)/铜 Discharge License Criteria/排放标准: N/A	0.006	0.070
Nickel (Ni)/镍 Discharge License Criteria/排放标准: N/A	0.048	0.021
Silver (Ag)/银 Discharge License Criteria/排放标准: N/A	ND	ND
Zinc(Zn)/锌 Discharge License Criteria/排放标准: N/A	0.024	0.283
Arsenic (As)/砷 Discharge License Criteria/排放标准: N/A	0.002	0.003
Cadmium(Cd)/镉 Discharge License Criteria/排放标准: N/A	0.0007	0.0009
Chromium VI(CrVI)/六价铬 Discharge License Criteria/排放标准: N/A	ND	ND
Lead(Pb)/铅 Discharge License Criteria/排放标准: N/A	ND	0.003
Mercury (Hg)/汞 Discharge License Criteria/排放标准: N/A	ND	0.00194

2K) Perfluorinated and Polyfluorinated Chemicals/全氟化合物和多氟化合物

Perfluorinated and Polyfluorinated Chemicals/全氟化合物和多氟化合物	I001 (ug/L)	I002 (ug/L)
Perfluorooctanesulfonic acid (PFOS)/ 全氟辛烷磺酸	ND	ND
Perfluoro-n-octanoic acid (PFOA)/ 全氟辛酸	0.08	0.11
Perfluorobutanesulfonic acid (PFBS)/ 全氟丁基磺酸	ND	ND
Perfluoro-n-hexanoic acid (PFHxA)/ 全氟己酸	ND	ND
8:2 FTOH/8:2-全氟辛基乙醇	ND	ND
6:2 FTOH/6:2-全氟乙醇	ND	ND

Others Priority Chemical Groups/其他优先化学物质



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	I001(ug/L)	I002(ug/L)
2A) APs and APEOs/ 烷基酚及烷基酚聚氧乙烯醚	NR	ND
2B) Chlorobenzenes and Chlorotoluenes/ 氯化苯和氯甲苯	NR	ND
2C) Chlorophenols/氯酚	NR	ND
2D) Azo Dyes/偶氮染料	NR	ND
2E) Carcinogenic Dyes/致癌染料	NR	ND
2F) Disperse Dyes/分散染料	NR	ND
2G) Flame Retardants/阻燃剂	NR	ND
2H) Glycols/乙二醇	NR	ND
2I) Halogenated Solvents/卤化溶剂	NR	ND
2J) Organotin Compounds/有机锡化合物	NR	ND
2L) Phthalates /邻苯二甲酸盐	NR	ND
2M) Poly Aromatic Hydrocarbons/多环芳香烃	NR	ND
2N) Volatile Organic Compounds/ 挥发性有机化合物	NR	ND

Remark 备注：

- Test method, reporting limit and list of chemical are summarized in tables of Appendix B.
测试方法，报告限值和所列化学物质在附录 B 中
- ND = Not detected 未检出 (Please refer to reporting limit shown in Appendix B. 起报限值参考附录 B).
- NR = Not required 未要求
- ppb = part(s) per billion 十亿分之一; ppm = part(s) per million 百万分之一

APPENDIX A - Photo of the Sample/ Sampling Location

样品照片/取样地照片

I001) Sampling Point
取样点

River water N 30°13'59"

E 120°32'42"

Tap water N 30°14'10"

E 120°32'37"



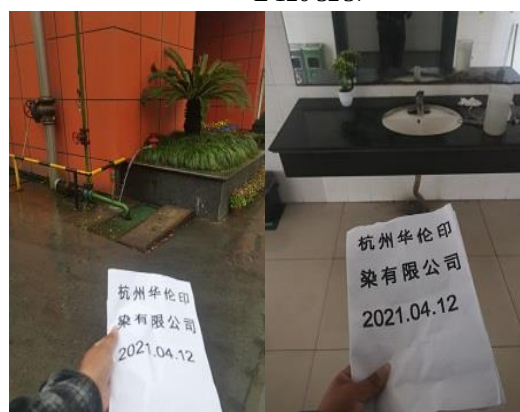
I001) Sampling Point Surrounding Environment
取样点周围环境

River water N 30°13'59"

E 120°32'42"

Tap water N 30°14'10"

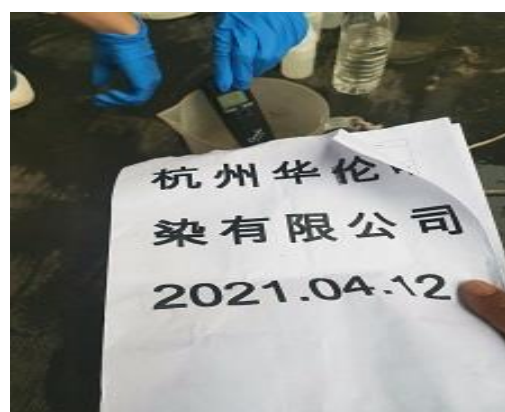
E 120°32'37"



I001) All sampled bottles with label
全部带标签的取样瓶



I001) pH value
pH 值



I001) Sample for Phthalate Testing
邻苯测试样品



I001) Packaging
包装



I002) Sampling Point
取样点
N 30°14'02"
E 120°32'50"



I002) Sampling Point Surrounding Environment
取样点周围环境
N 30°14'02"
E 120°32'50"



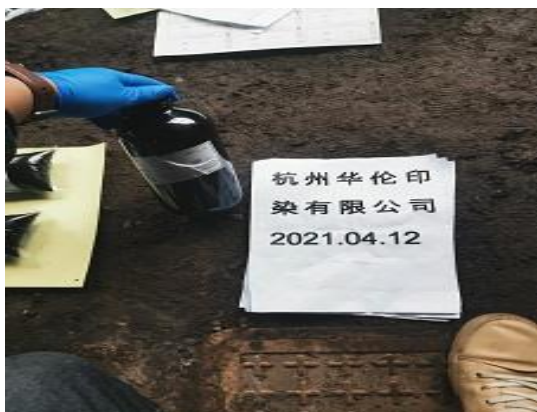
I002) All sampled bottles with label
全部带标签的取样瓶



I002) pH value
pH 值



I002) Sample for Phthalate Testing
邻苯测试样品



I002) Packaging
包装





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APPENDIX B/附录 B

Group /组别	Substance (Testing parameter)/物质(测试参数)	CAS No./化学物质登记号	Report Limit /报告限值		Name of the testing method/测试方法名称
			Wastewater /废水 (ug/L)/(ppb)	Sludge /淤泥 (mg/kg)/(ppm)	
2A. Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers/烷基酚及烷基酚聚氧乙烯醚包括同分异构体	Nonylphenol NP, mixed isomers /壬基苯酚及同分异构体	Various (incl. 104-40-5, 11066-49-2, 25154-52-3, 84852-15-3)	5	0.4	NP/OP: ISO 18857-2 (modified dichloromethane extraction) or ASTM D7065 (GC/MS or LC/MS(-MS))
	Octylphenol OP, mixed isomers/辛基苯酚及同分异构体	Various (incl. 140-66-9, 1806-26-4, 27193-28-8)	5	0.4	
	Octylphenol Ethoxylates (OPEO)/ 辛基酚乙烯醚	Various (incl. 9002-93-1, 9036-19-5, 68987-90-6)	5	0.4	OPEO/NPEO: ISO18857-2 or ASTM D7065(LC/MS; GC/MS or LC/MSMS for n=1,2) APEO 1-18
	Nonylphenol Ethoxylates (NPEO)/ 壬基酚乙烯醚	Various (inc. 9016-45-9, 26027-38-3, 37205-87-1, 68412-54-4, 127087-87-0)	5	0.4	
2B. Chlorobenzenes and Chlorotoluenes/氯化苯和氯甲苯	Chlorobenzene/氯化苯	108-90-7	0.2	0.2	USEPA 8260B,8270D. Dichloromethane extraction followed by GC/MS
	1,2-Dichlorobenzene/1,2-二氯苯	95-50-1	0.2	0.2	
	1,3-Dichlorobenzene / 1,3-二氯苯	541-73-1	0.2	0.2	
	1,4-Dichlorobenzene / 1,4-二氯苯	106-46-7	0.2	0.2	
	1,2,3-Trichlorobenzene / 1,2,3-三氯苯	87-61-6	0.2	0.2	
	1,2,4-Trichlorobenzene / 1,2,4-三氯苯	120-82-1	0.2	0.2	
	1,3,5-Trichlorobenzene / 1,3,5-三氯苯	108-70-3	0.2	0.2	
	1,2,3,4-Tetrachlorobenzene/ 1,2,3,4-四氯苯	634-66-2	0.2	0.2	
	1,2,3,5-Tetrachlorobenzene/ 1,2,3,5-四氯苯	634-90-2	0.2	0.2	
	1,2,4,5-Tetrachlorobenzene/ 1,2,4,5-四氯苯	95-94-3	0.2	0.2	
	Pentachlorobenzene/ 五氯苯	608-93-5	0.2	0.2	
	Hexachlorobenzene/ 六氯苯	1198-74-1	0.2	0.2	
	2-Chlorotoluene / 2-氯甲苯	95-49-8	0.2	0.2	
	3-Chlorotoluene / 3-氯甲苯	108-41-8	0.2	0.2	
	4-Chlorotoluene / 4-氯甲苯	106-43-4	0.2	0.2	
	2,3-Dichlorotoluene / 2,3-二氯甲苯	32768-54-0	0.2	0.2	
	2,4-Dichlorotoluene /	95-73-8	0.2	0.2	



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			Wastewater /废水 (ug/L)/(ppb)	Sludge /淤泥 (mg/kg)/(ppm)	
	2,4-二氯甲苯				
	2,5-Dichlorotoluene/ 2,5-二氯甲苯	19398-61-9	0.2	0.2	
	2,6-Dichlorotoluene / 2,6-二氯甲苯	118-69-4	0.2	0.2	
	3,4-Dichlorotoluene / 3,4-二氯甲苯	95-75-0	0.2	0.2	
	3,5-Dichlorotoluene / 3,5-二氯甲苯	25186-47-4	0.2	0.2	
	2,3,4-Trichlorotoluene / 2,3,4-三氯甲苯	7359-72-0	0.2	0.2	
	2,3,6-Trichlorotoluene / 2,3,6-三氯甲苯	2077-46-5	0.2	0.2	
	2,4,5-Trichlorotoluene / 2,4,5-三氯甲苯	6639-30-1	0.2	0.2	
	2,4,6-Trichlorotoluene / 2,4,6-三氯甲苯	23749-65-7	0.2	0.2	
	3,4,5-Trichlorotoluene / 3,4,5-三氯甲苯	21472-86-6	0.2	0.2	
	2,3,4,5-Tetrachlorotoluene / 2,3,4,5-四氯甲苯	76057-12-0	0.2	0.2	
	2,3,5,6-Tetrachlorotoluene / 2,3,5,6-四氯甲苯	29733-70-8	0.2	0.2	
	2,3,4,6-Tetrachlorotoluene / 2,3,4,6-四氯甲苯	875-40-1	0.2	0.2	
	Pentachlorotoluene / 五氯甲苯	877-11-2	0.2	0.2	
2C. Chlorophenols/ 氯酚	2-Chlorophenol/ 2-氯苯酚	95-57-8	0.5	0.05	USEPA 8270 D Solvent extraction, derivatisation with KOH, acetic anhydride followed by GC/MS
	3-Chlorophenol/ 3-氯苯酚	108-43-0	0.5	0.05	
	4-Chlorophenol/ 4-氯苯酚	106-48-9	0.5	0.05	
	2,3-Dichlorophenol/ 2,3-二氯苯酚	576-24-9	0.5	0.05	
	2,4-Dichlorophenol/ 2,4-二氯苯酚	120-83-2	0.5	0.05	
	2,5-Dichlorophenol/ 2,5-二氯苯酚	583-78-8	0.5	0.05	
	2,6-Dichlorophenol/ 2,6-二氯苯酚	87-65-0	0.5	0.05	
	3,4-Dichlorophenol/ 3,4-二氯苯酚	95-77-2	0.5	0.05	
	3,5-Dichlorophenol/ 3,5-二氯苯酚	591-35-5	0.5	0.05	
	2,3,4-Trichlorophenol/ 2,3,4-三氯苯酚	15950-66-0	0.5	0.05	
	2,3,5-Trichlorophenol/ 2,3,5-三氯苯酚	933-78-8	0.5	0.05	
	2,3,6-Trichlorophenol/ 2,3,6-三氯苯酚	933-75-5	0.5	0.05	



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			Wastewater /废水 (ug/L)/(ppb)	Sludge /淤泥 (mg/kg)/(ppm)	
	2,3,6-三氯苯酚				
	2,4,5-Trichlorophenol/ 2,4,5-三氯苯酚	95-95-4	0.5	0.05	
	2,4,6-Trichlorophenol/ 2,4,6-三氯苯酚	88-06-2	0.5	0.05	
	3,4,5-Trichlorophenol/ 3,4,5-三氯苯酚	609-19-8	0.5	0.05	
	2,3,4,5-Tetrachlorophenol/ 2,3,4,5-四氯苯酚	4901-51-3	0.5	0.05	
	2,3,4,6-Tetrachlorophenol/ 2,3,4,6-四氯苯酚	58-90-2	0.5	0.05	
	2,3,5,6-Tetrachlorophenol 2,3,5,6-四氯苯酚	935-95-5	0.5	0.05	
	Pentachlorophenol (PCP)/ 五氯苯酚	87-86-5	0.5	0.05	
2D. Dyes - Azo (Forming Restricted Amines)/ 偶氮染料 (形成限制胺类)	4,4'-Methylene-bis-(2-chloro-aniline)/ 4,4'-亚甲基-二-(2-氯苯胺)	101-14-4	0.1	0.2	EN 14362. Reduction step with Sodiumdithionite, solvent extraction, GC/MS or LC/MS
	4,4'-methylenedianiline/ 4,4'-二氨基二苯甲烷	101-77-9	0.1	0.2	
	4,4'-Oxydianiline/ 4,4'-二氨基二苯醚	101-80-4	0.1	0.2	
	4-Chloroaniline/4-氯苯胺	106-47-8	0.1	0.2	
	3,3'-Dimethoxybenzidine/ 3,3'-二甲氧基联苯胺	119-90-4	0.1	0.2	
	3,3'-Dimethylbenzidine/ 3,3'-二甲基联苯胺	119-93-7	0.1	0.2	
	6-methoxy-m-toluidine (p-Cresidine)/ 6-甲氧基间甲苯胺	120-71-8	0.1	0.2	
	2,4,5-Trimethylaniline/ 2,4,5-三甲基苯胺	137-17-7	0.1	0.2	
	4,4'-Thiodianiline	139-65-1	0.1	0.2	
	4-Aminoazobenzene/ 4-氨基偶氮苯	60-09-3	0.1	0.2	
	4-Methoxy-m-phenylenediamine/ 4-甲氧基-间苯二胺	615-05-4	0.1	0.2	
	4,4'-Methylene-di-o-toluidine/4,4'-二甲基-邻甲苯胺 /	838-88-0	0.1	0.2	
	2,6-Xylidine/ 2,6-二甲基苯胺	87-62-7	0.1	0.2	
	o-Anisidine/邻氨基苯甲醚	90-04-0	0.1	0.2	
	2-Naphthylamine/2-萘胺	91-59-8	0.1	0.2	
	3,3'-Dichlorobenzidine/ 3,3'-二氯联苯胺	91-94-1	0.1	0.2	
	4-Aminodiphenyl/ 4-氨基联苯	92-67-1	0.1	0.2	



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			Wastewater /废水 (ug/L)/(ppb)	Sludge /淤泥 (mg/kg)/(ppm)	
	Benzidine/联苯胺	92-87-5	0.1	0.2	
	o-Toluidine/邻甲苯胺	95-53-4	0.1	0.2	
	2,4-Xylidine/2,4-二甲基苯胺	95-68-1	0.1	0.2	
	4-Chloro-o-toluidine/4-氯邻甲苯胺	95-69-2	0.1	0.2	
	4-Methyl-m-phenylenediamine/4-甲基间苯二胺	95-80-7	0.1	0.2	
	o-Aminoazotoluene/邻氨基偶氮甲苯	97-56-3	0.1	0.2	
	5-nitro-o-toluidine/5-硝基邻甲苯胺	99-55-8	0.1	0.2	
2E. Dyes-Carcinogenic or Equivalent Concern/致癌染料或涉及的同类	C.I. Direct Black 38/ C.I.直接黑 38	1937-37-7	500	10	Liquid Extraction LC/MS
	C.I. Direct Blue 6/ C.I.直接蓝 6	2602-46-2	500	10	
	C.I. Acid Red 26/ C.I.酸性红 26	3761-53-3	500	10	
	C.I. Basic Red 9/ C.I.碱性红 9	569-61-9	500	10	
	C.I. Direct Red 28/ C.I.直接红 28	573-58-0	500	10	
	C.I. Basic Violet 14/ C.I.碱性紫 14	632-99-5	500	10	
	C.I. Disperse Blue 1 / C.I.分散蓝 1	2475-45-8	500	10	
	C.I. Disperse Blue 3 / C.I.分散蓝 3	2475-46-9	500	10	
	C.I. Basic Blue 26 (with Michler's Ketone > 0.1%) / C.I. 碱性蓝 26 (米氏酮 > 0.1%)	2580-56-5	500	10	
	C.I. Basic Green 4 (malachite green chloride)/ C.I. 碱性绿 4(孔雀石绿氯化物)	569-64-2	500	10	
	C.I. Basic Green 4 (malachite green oxalate)/ C.I. 碱性绿 4(孔雀石绿草酸盐)	2437-29-8	500	10	
	C.I. Basic Green 4(malachite green)/ C.I. 碱性绿 4(孔雀石绿)	10309-95-2	500	10	
2F. Dyes-disperse (sensitizing)/分散染料 (致敏)	Disperse Orange 11/分散橙 11	82-28-0	500	10	Liquid Extraction LC/MS
	Disperse Yellow 1 / 分散黄 1	119-15-3	50	2	
	Disperse Blue 102 /	12222-97-8	50	2	



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			Wastewater /废水 (ug/L)/(ppb)	Sludge /淤泥 (mg/kg)/(ppm)	
	分散蓝 102				
	Disperse Blue 106 / 分散蓝 106	12223-01-7	50	2	
	Disperse Yellow 39 / 分散黄 39	12236-29-2	50	2	
	Disperse Orange 37/59/76 / 分散橙 37/59/76	13301-61-6	50	2	
	Disperse Brown 1 / 分散棕 1	23355-64-8	50	2	
	Disperse Orange 1/ 分散橙 1	2581-69-3	50	2	
	Disperse Yellow 3/ 分散黄 3	2832-40-8	50	2	
	Disperse Red 11/分散红 11	2872-48-2	50	2	
	Disperse Red 1/分散红 1	2872-52-8	50	2	
	Disperse Red 17 / 分散红 17	3179-89-3	50	2	
	Disperse Blue 7 /分散蓝 7	3179-90-6	50	2	
	Disperse Blue 26 / 散蓝 26	3860-63-7	50	2	
	Disperse Yellow 49 / 分散黄 49	54824-37-2	50	2	
	Disperse Blue 35 / 分散蓝 35	12222-75-2	50	2	
	Disperse Blue 124 / 分散蓝 124	61951-51-7	50	2	
	Disperse Yellow 9 / 分散黄 9	6373-73-5	50	2	
	Disperse Orange 3 / 分散橙 3	730-40-5	50	2	
2G. Flame Retardants/阻燃剂	Tris(2-chloroethyl) phosphate (TCEP)/ 三(2-氯乙基)磷酸酯	115-96-8	5	1	ISO 22032, USEPA527 and USEPA8321B. Dichloromethane extraction GC/MS or LC/MS(-MS)
	Decabromodiphenyl ether (DecaBDE)/ 十溴联苯醚	1163-19-5	5	1	
	Tris(2,3-dibromopropyl) phosphate (TRIS/TDBPP)/ 三(2, 3-二溴丙基)磷酸酯	126-72-7	5	1	
	Pentabromodiphenyl ether (PentaBDE)/ 五溴联苯醚 (PentaBDE)	32534-81-9	5	1	
	Octabromodiphenyl ether (OctaBDE)/ 八溴联苯醚	32536-52-0	5	1	
	Bis(2,3-dibromopropyl) phosphate (BIS/BDBPP)/ 二(2, 3-二溴丙基)磷酸酯	5412-25-9	5	1	
	Tris(aziridinyl)-phosphineoxide (TEPA)/	545-55-1	5	1	

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	三-(氮环丙基)-磷化氧				
	Polybromobiphenyls (PBBs)/多溴联苯	59536-65-1	5	1	
	Tetrabromobisphenol A (TBBPA)/四溴双酚 A	79-94-7	5	1	
	Hexabromocyclododecane (HBCDD)/六溴环十二烷	3194-55-6	5	1	
	2,2-Bis(bromomethyl)-1,3-propanediol (BBMP)/2,2-二(溴甲基)-1,3-丙二醇	3296-90-0	5	1	
	Tris(1,3-dichloroisopropyl) phosphate (TDCP)/三(1,3-二氯异丙基)磷酸酯	13674-87-8	5	1	
	Short chain chlorinated paraffins (SCCPs) (C10-C13)/短链氯化石蜡	85535-84-8	5	1	
2H. Glycols/乙二醇	Bis(2-methoxyethyl)-ether / 二甘醇二甲醚	111-96-6	50	10	US EPA 8270 Liquid Extraction LC/MS
	2-ethoxyethanol / 乙二醇单乙醚	110-80-5	50	10	
	2-ethoxyethyl acetate / 乙二醇乙醚醋酸酯	111-15-9	50	10	
	Ethylene glycol dimethyl ether/ 乙二醇二甲醚	110-71-4	50	10	
	2-methoxyethanol / 乙二醇甲醚	109-86-4	50	10	
	2-methoxyethylacetate / 乙二醇甲醚乙酸酯	110-49-6	50	10	
	2-methoxypropylacetate/ 2-甲基丙醇乙酸酯	70657-70-4	50	10	
	Triethylene glycol dimethyl ether/ 三乙二醇二甲醚	112-49-2	50	10	
2I. Halogenated Solvents/卤化溶剂	1,2-Dichloroethane/ 1,2-二氯乙烷	107-06-2	1	2	USEPA 8260B Headspace GC/MS or Purgeand-Trap-GC/MS
	Methylene Chloride/ 二氯甲烷	75-09-2	1	2	
	Trichloroethylene/ 三氯乙烯	79-01-6	1	2	
	Tetrachloroethylene /四氯乙烯	127-18-4	1	2	
2J. Organotin Compounds/有机锡化合物	Mono-, di- and trimethyltin derivatives/ 一、二、三-甲基锡衍生物	Multiple	0.01	0.2	ISO 17353 Derivatisation with NaB(C ₂ H ₅) GC/MS
	Mono-, di- and tri-butyltin	Multiple	0.01	0.2	



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			Wastewater /废水 (ug/L)/(ppb)	Sludge /淤泥 (mg/kg)/(ppm)	
	derivatives/ 一,二,三-丁基锡衍生物				
	Mono-, di- and tri-phenyltin derivatives/ 一,二,三-苯基锡衍生物	Multiple	0.01	0.2	
	Mono-, di- and tri-octyltin derivatives/ 一,二,三-辛基锡衍生物	Multiple	0.01	0.2	
	Monomethyltin /一甲基锡	Multiple	0.01	0.2	
	Dimethyltin /二甲基锡	Multiple	0.01	0.2	
	Trimethyltin /三甲基锡	Multiple	0.01	0.2	
	Monobutyltin /一丁基锡	Multiple	0.01	0.2	
	Dibutyltin/二丁基锡	Multiple	0.01	0.2	
	Tributyltin /三丁基锡	Multiple	0.01	0.2	
	Monophenyltin /一苯基锡	Multiple	0.01	0.2	
	Diphenyltin /二苯基锡	Multiple	0.01	0.2	
	Triphenyltin /三苯基锡	Multiple	0.01	0.2	
	Monooctyltin /一辛基锡	Multiple	0.01	0.2	
	Diocetyltn/二辛基锡	Multiple	0.01	0.2	
	Tetrabutyltin /四丁基锡	Multiple	0.01	0.2	
2K. Perfluorinated and Polyfluorinated Chemicals (PFCs)/ 全氟化合物和多氟化合物	Perfluorooctanesulfonic acid (PFOS)/ 全氟辛烷磺酸	355-46-4, 432-50-7	0.01	0.10	DIN 38407-42 (modified) Ionic PFC: Concentration or direct injection, LC/MS(-MS); Non-ionic PFC (FTOH): derivatisation with acetic anhydride, followed by GC/MS
	Perfluoro-n-octanoic acid (PFOA)/ 全氟辛酸	335-67-1/ 335-95-5	0.01	0.10	
	Perfluorobutanesulfonic acid (PFBS)/ 全氟丁基磺酸	29420-49-3, 29420-43-3	0.01	0.10	
	Perfluoro-n-hexanoic acid (PFHxA)/ 全氟己酸	307-24-4	0.01	0.10	
	8:2 FTOH/8:2-全氟辛基乙醇	678-39-7	1	1	
	6:2 FTOH/6:2-全氟乙醇	647-42-7	1	1	
2L. Phthalates (including all other esters of phthalic acid)/ 苯二甲酸盐 (包括其他邻苯二甲酸酯类)	Di-2-ethylhexyl phthalate (DEHP)/ 邻苯二甲酸二(2-乙基己基酯)	117-81-7	10	2	US EPA 8270D, ISO 18856 Dichloromethane extraction GC/MS
	Dimethoxyethyl phthalate (DMEP)/ 邻苯二甲酸二甲氧基乙酯	117-82-8	10	2	
	Di-n-octyl phthalate (DNOP)/ 邻苯二甲酸二辛酯	117-84-0	10	2	
	Di-iso-decyl phthalate (DIDP)/ 邻苯二甲酸二异癸酯	26761-40-0	10	2	
	Di-iso-nonyl phthalate (DINP)/ 邻苯二甲酸二异壬酯	28553-12-0	10	2	



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			Wastewater /废水 (ug/L)/(ppb)	Sludge /淤泥 (mg/kg)/(ppm)	
	Di-n-hexyl phthalate (DnHP)/邻苯二甲酸二己酯	84-75-3	10	2	
	Dibutyl phthalate (DBP)/邻苯二甲酸二丁酯	84-74-2	10	2	
	Butyl benzyl phthalate (BBP)/邻苯二甲酸丁苄酯	85-68-7	10	2	
	Dinonyl phthalate (DNP)/邻苯二甲酸二壬酯	84-76-4	10	2	
	Diethyl phthalate (DEP)/邻苯二甲酸二乙酯	84-66-2	10	2	
	Di-n-propyl phthalate (DPRP)/邻苯二甲酸二丙酯	131-16-8	10	2	
	Di-iso-butyl phthalate (DIBP)/邻苯二甲酸二异丁酯	84-69-5	10	2	
	Di-cyclohexyl phthalate (DCHP)/邻苯二甲酸二环己酯	84-61-7	10	2	
	Di-iso-octyl phthalate (DIOP)/邻苯二甲酸二异辛酯	27554-26-3	10	2	
	1,2-benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)/邻苯二甲酸-二(C7-C11支链与直链)	68515-42-4	10	2	
2M. Poly Aromatic Hydrocarbons (PaHs)/多环芳香烃	1,2-benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)/邻苯二甲酸二支链烷基酯	71888-89-6	10	2	DIN 38407-39 Solvent extraction GC/MS
	Benzo[a]pyrene (BaP) /苯并[a]芘	50-32-8	1	0.2	
	Anthracene /蒽	120-12-7	1	0.2	
	Pyrene /芘	129-00-0	1	0.2	
	Benzo[ghi]perylene /苯并[ghi]芘	191-24-2	1	0.2	
	Benzo[e]pyrene /苯并[e]芘	192-97-2	1	0.2	
	Indeno[1,2,3-cd]pyrene /茚并[1,2,3-cd]芘	193-39-5	1	0.2	
	Benzo[j]fluoranthene /苯并[j]荧蒽	205-82-3	1	0.2	
	Benzo[b]fluoranthene /苯并[b]荧蒽	205-99-2	1	0.2	



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Group /组别	Substance (Testing parameter)/物质(测试参数)	CAS No./化学物质登记号	Report Limit /报告限值		Name of the testing method/测试方法名称
			Wastewater /废水 (ug/L)/(ppb)	Sludge /淤泥 (mg/kg)/(ppm)	
	Fluoranthene /荧蒽	206-44-0	1	0.2	
	Benzo[k]fluoranthene /并[k]荧蒽	207-08-9	1	0.2	
	Acenaphthylene /芴	208-96-8	1	0.2	
	Chrysene /屈	218-01-9	1	0.2	
	Dibenz[a,h]anthracene /二苯并[a, h] 蒽	53-70-3	1	0.2	
	Benzo[a]anthracene/苯并[a] 蒽	56-55-3	1	0.2	
	Acenaphthene /二氢芴	83-32-9	1	0.2	
	Phenanthrene /菲	85-01-8	1	0.2	
	Fluorene /芴	86-73-7	1	0.2	
	Naphthalene /萘	91-20-3	1	0.2	
2N. Volatile Organic Compound (VOCs)/挥发性有机化合物	Benzene /苯	71-43-2	1	2	ISO 11423-1 Headspace- or Purge-and-Trap-GC/MS
	Xylene /二甲苯	1330-20-7	1	2	
	o-cresol /邻甲苯酚	95-48-7	1	2	
	p-cresol /对甲苯酚	106-44-5	1	2	
	m-cresol /间甲苯酚	108-39-4	1	2	
1A. Conventional Parameters /常规参数	Temperature/温度	—	N/A	N/A	Apply the standard methods that best apply to the region (ISO, EU, US, China), please refer to ZDHC Wastewater Guidelines for more details on the testing method and the levels (Exceeded Foundational Limit, Foundational, Progressive, and Aspirational).
	TSS/总悬浮固体	—	N/A	N/A	
	COD/化学需氧量	—	N/A	N/A	
	Total-N/总氮	—	N/A	N/A	
	pH/酸碱值	—	N/A	N/A	
	Color [m ⁻¹] (436nm; 525nm; 620nm)/色度	—	N/A	N/A	
	BOD ₅ /五日生化需氧量	—	N/A	N/A	
	Ammonium-N/氨态氮	—	N/A	N/A	
	Total-P/总磷	—	N/A	N/A	
	AOX/可吸附有机卤化物	—	N/A	N/A	
	Oil and Grease/油和油脂	—	N/A	N/A	
	Phenol/苯酚	—	N/A	N/A	
	Coliform(bacteria/100ml)/大肠菌群	—	N/A	N/A	
	Persistent Foam/泡沫持久性	—	Not visible	Not visible	
	ANIONS/阴离子				
	Cyanide(CN ⁻)/氰化物	Various (incl. 57-12-5)	0.02	1	
	Sulfide/硫化物	—	N/A	N/A	
	Sulfite/亚硫酸盐	—	N/A	N/A	



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Group	Substance (Testing parameter)	CAS No.	Report Limit		Name of the testing method
			Wastewater (mg/L) / (ppm)	Wastewater (mg/kg) / (ppm)	
1B. Conventional Parameters – METALS/常规参数-重金属	Antimony(Sb)/锑	7440-36-0	0.001	N/A	Various Acid Digestion with ICP analysis
	Chromium(Cr), total/总铬	7440-47-3	0.001	N/A	
	Cobalt(Co)/钴	7440-48-4	0.001	N/A	
	Copper(Cu)/铜	7440-50-8	0.001	N/A	please refer to ZDHC Wastewater Guidelines for more details on the testing method and the levels (Foundational, Progressive, and Aspirational).
	Nickel(Ni)/镍	7440-02-0	0.001	N/A	
	Silver(Ag)/银	7440-22-4	0.001	N/A	
	Zinc(Zn)/锌	7440-66-6	0.001	N/A	
	Arsenic(As)/砷	7440-38-2	0.001	2	
	Cadmium(Cd)/镉	7440-43-9	0.0001	2	
	Chromium VI(CrVI)/六价铬	18540-29-9	0.001	2	Cr(VI): Various Solvent extraction and derivatisation followed by UV analysis
	Lead(Pb)/铅	7439-92-1	0.001	2	
	Mercury(Hg)/汞	7439-97-6	0.00005	0.2	

Note / Key :

注释/要点:

ppb = part(s) per billion /ppb = 十亿分之一; ppm = part(s) per million/百万分之一

U. S. EPA = United States Environmental Protection Agency/美国环境保护署

APHA = American Public Health Association/美国公共卫生协会

N/A = Not Applicable 不适用



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APPENDIX C – Onsite Field Data Record Sheet

附录 C-现场采样记录表

	FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE (COMPOSITE / INDIVIDUAL SAMPLING)	CPSD-AN-00613-DATA 04	
		Issue Date:	
		Version No.: 11	
		Business Line: Analytical	

General Data

Laboratory Sample Number: 6621102/1418
Client Name: 杭州华印染有限公司 / 杭州萧山区党湾镇后港中路155号
Field Contact Person: 王岩儿 Phone No: 13989483998
Project (Facility Name and Address): 杭州华印染有限公司 / 杭州萧山区党湾镇后港中路155号
Sampling Location / Description: 24 水
Sample Identification: Zero discharge with sampling plan
Sample Type: Composite Sample / Grab sample (Please delete as appropriate)
Name of Sampler: 张振
Discharge mode: Direct discharge to environment (Specify destination: River, Sea, Stream...) OR Indirect discharge to sewage treatment plant
Date of collection: 2021-04-12
Factory Type: Dyeing / Printing / Washing / Finishing / Others (please specify):
*Note: It would be selected more than one

Field Data for Wastewater

Arrival Time:	9:50	Departure Time:						
Field Parameters	pH:	Temp: °C	Color:	Flow rate: (volume/min)				
Control No. of field equipment	CA-002 LI	CA-002 LI						
Factory with effluent treatment plant:	Yes	No						
Sample matrix:	☒	Incoming water (If required)						
		Wastewater before treatment						
		Wastewater after treatment – water at discharge point						
Sampler container number	A1							
	1	2	3	4	5	6	7	8
Recording time	ID	A1						
	Time	12:40						
pH:	7.21							
Temp (°C):	19.3							
Color:	无色							
Flow rate (volume/time)	/							
Volume collected, mL	4.8L							
Total volume collected	4.8L							
		Remark: Total volume collected must be greater than total of sample size required						

Analysis Required and Preservation Method

Analysis Required and Preservation Protocol			Type of container	Preservation method
Tests (ZDHC MRSL Parameters)	Test required (v)	Total of sample size	Amber Glass, washed with nitric acid, rinsed thoroughly with distilled water and dried before use	Without adding acid Store sample at 6°C
Combined test or Individual test (Remark 4)	1. Phthalate	✓		
	2. Chlorobenzenes, Chlorotoluene & PAH	✓		
	3. SCCPs	✓		
	4. APS	✓		
5. APEOs	✓	100 mL		
6. Chlorophenols & Cresols	✓	100 mL		
7. Flame retardant	✓	500 mL		
8. Dyes	✓	10 mL		
9. Glycol	✓	50 mL		
10. *Pesticides		1000 mL		
11. *Nitrosamine		10 mL		
12. Banned Azodyes		2000 mL		
13. *Free primary aromatic amines		500 mL		
14. Organotin Compounds	✓	500 mL	Amber Glass, washed with nitric acid; Pre-add 6.5 mL of 2M HCl	Acidify to pH 2 with HCl and store sample at 6°C
15. VOC & Halogenated Solvents (Remark 6)	✓	10 mL		Fill to full container without air gap; acidify to pH 2 with HCl and store sample at 6°C
16. PFCs	✓	2 mL	PE, washed with pesticide grade Acetone	Without adding acid Store sample at 6°C



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Tests (Conventional Parameters)		Test required (Y)	Total of sample size	Type of container	Preservation method
Combined test or individual test (Remark 4)	17. Total suspended solids (TSS)		2000 mL total or 2000 mL each	Amber Glass, washed with nitric acid, rinsed thoroughly with distilled water and dried before use	Without adding acid Store sample at 6°C
	18. Total dissolved solids (TDS)				
19. 5-day Biochemical Oxygen Demand (BOD5)			1000 mL		
20. Heavy Metals except Cr(VI) & Total-P (Remark 6)		✓	9 mL	PE, washed with nitric acid, pre-add 0.5 mL of 2M HNO ₃	Acidify to pH 2 with HNO ₃ and store at 6°C
21. Cr(VI)		✓	95 mL	Amber Glass, washed with pesticide grade acetone	Filter by 0.45µm filter in field, fill to full container without air gap; adjust pH to 9.0-9.5 by adding ammonium buffer. Store sample at 6°C
22. Cyanide		✓	500 mL		Adjust pH 12 with 50% NaOH, add 0.05 mL of 10% Na ₂ S ₂ O ₅ , and store sample at 6°C
23. Chemical oxygen demand (COD)			150 mL	Amber Glass, washed with nitric acid; Pre-add 6.5 mL of 2M H ₂ SO ₄	Acidify to pH 2 with H ₂ SO ₄ Store sample at 6°C
24. Phenols			500 mL		Fill to full container without air gap; acidify to pH 2 with H ₂ SO ₄ and store sample at 6°C
25. Formaldehyde			25 mL		
26. Sulfide (Remark 5)			99 mL	PE, washed with pesticide grade Acetone;	Fill to full container without air gap; add 2 drops of 2 zinc acetate, adjust pH to 8 with 4M NaOH Store sample at 6°C
27. Adsorbable organically bound halogens (AOX)			100 mL	Amber Glass, washed with nitric acid, pre-add 6.5 mL of 2M HNO ₃	Add 0.05 mL of 10% Na ₂ S ₂ O ₅ , acidify to pH 2 with H ₂ SO ₄ . Store sample at 6°C
28. Total Coliform (Remark 6)			125 mL	PE, clean, sterile, non-reactive	
29. Peristaltic foam			N/A	Foam higher than 45 cm (visual estimation): <u>Yes / No</u>	
30. Sulfite			100 mL	Amber Glass, washed with pesticide grade acetone	Add 1mL of 2.5% EDTA, 0.5g zinc acetate Store sample at 6°C
31. Total-N			100 mL	Amber Glass with wide-mouth PTFE lid washed with nitric acid; Pre-add 6.5 mL of 2M H ₂ SO ₄	Acidify to pH 2 with H ₂ SO ₄ Store sample at 6°C
32. Ammonium-N			500 mL		
33. Oil and Grease			1000 mL	Amber Glass, washed with nitric acid; Pre-add 6.5 mL of 2M H ₂ SO ₄	
34. Total Hydrocarbon			1000 mL		
35. Lumines (Bacteria Toxicity)			1000 mL	Amber Glass, washed with nitric acid, rinsed thoroughly with distilled water and dried before use	Without adding acid Store sample at 6°C
36. Sulphate			100 mL		
37. Chloride			100 mL		
38. Others:					
Observation/ Remark:					

*Remarks:

1. Individual sampling can be performed upon request.

2. The minimum sampling time for 2016 ZDHC guideline is 6 hours with no more than one hour between discrete samples. Sampling time could be adjusted upon request.

3. Scope of ZDHC guideline: Parameter 1, 2, 4-9, 12, 14-17, 19-24, 26-33

Scope of synthetic leather industry: Parameter 1, 2, 4-9, 12, 14-17, 19-33

Scope of MMCF: Parameter 4, 5, 17, 19-24, 26, 27, 31-37

Free primary aromatic amine, pesticides, nitrosamine and TDS are not in the scope of ZDHC Guideline, they are tested upon request.

4. Refer to CPD-A3-G01015-STIP01, locations with those CPD test capability inside TCD matrix can perform the combined test.

5. Refer to CPD-A3-G00570-MTHD for additional pretreatment of sulfide if only dissolved sulfide is required to be tested.

6. Refer to CPD-A3-G0013-MTHD for preparation of field blank for specific parameters.

Recorded by:

张子晨

Full name:

Date:

2021.04.12

Comment from factory:

进水: N: 30°13'59" E 120°32'42"

Acknowledgment by factory:

I hereby confirmed that Bureau Veritas has completed the stated sampling activity according to the time and location. All sample(s) is/are collected in designated container(s) and without any observation in leakage. Sample(s) collected by Bureau Veritas shall be stored in portable freezer / fridge that is maintained in 1-6°C

Signature of Factory Representative:

Full Name:



Date:

2021.4.12



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	FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE (COMPOSITE / INDIVIDUAL SAMPLING)	CPSPD-AN-00613-DATA 04
		Issue Date:
		Version No.: 11
		Business Line: Analytical

General Data

Laboratory Sample Number: 6621/02/1418

Client Name: 王 凯

Field Contact Person: 王 凯 Phone No: 17989483998

Project (Facility Name and Address): 杭州华企印务有限公司/杭州市萧山区党湾镇镇中路155号

Sampling Location / Description: 外理前取样口

Sample Identification: Zero discharge with sampling plan

Sample Type: Composite Sample / Grab sample (Please delete as appropriate)

Name of Sampler: 张振

Discharge mode: Direct discharge to environment (Specify destination: River, Sea, Stream...) OR Indirect discharge to sewage treatment plant

Date of collection: 2021.04.12

Factory Type: Dyeing / Printing / Washing / Finishing / Others (please specify):

*Note: It would be selected more than one

Field Data for Wastewater

Arrival Time:		9:50		Departure Time:					
Field Parameters		pH:		Temp:	°C	Color:	Flow rate: (volume/min)		
Control No. of field equipment		CA-002LI		CA-002LI					
Factory with effluent treatment plant:		Yes				No			
Sample matrix:		Incoming water (If required)							
		Wastewater before treatment							
		Wastewater after treatment – water at discharge point							
Sampler container number		A2	A2	A2	A2	A2	A2	✓	
		1	2	3	4	5	6	7	8
Recording time	ID	A2	A2	A2	A2	A2	A2	A2	/
	Time	9:55	10:55	11:55	12:55	13:55	14:55	15:55	
pH:		9.89	9.92	9.47	9.72	9.17	9.43	9.54	
Temp (°C):		36.5	34.7	36.1	35.7	35.5	36.7	34.7	
Color:		黑色	黑色	黑色	深棕	黑色	深棕	深棕	
Flow rate (volume/time)		/	/	/	/	/	/	/	
Volume collected, mL		1.15L	1.15L	1.15L	1.15L	1.15L	1.15L	3.50L	
Total volume collected		10.4L	Remark: Total volume collected must be greater than total of sample size required						

Analysis Required and Preservation Method

Tests (ZDHC MRSL Parameters)	Test required (v)	Total of sample size	Type of container	Preservation method
Combined test or Individual test (Remark 4)	1. Phthalate	✓	Amber Glass, washed with nitric acid, rinsed thoroughly with distilled water and dried before use	Without adding acid Store sample at 6°C
	2. Chlorobenzenes, Chlorotoluene & PAH	✓		
	3. SCCPs	✓		
	4. APS	✓		
5. APEOs	✓	100 mL		
6. Chlorophenols & Cresols	✓	100 mL		
7. Flame retardant	✓	500 mL		
8. Dyes	✓	10 mL		
9. Glycol	✓	50 mL		
10. *Pesticides		1000 mL		
11. *Nitrosamine		10 mL		
12. Banned Azodyes	✓	2000 mL		
13. *Free primary aromatic amines		500 mL		
14. Organotin Compounds	✓	500 mL	Amber Glass, washed with nitric acid; Pre-add 6.5 mL of 2M HCl	Acidify to pH 2 with HCl and store sample at 6°C
15. VOC & Halogenated Solvents (Remark 6)	✓	10 mL		Fill to full container without air gap; acidify to pH 2 with HCl and store sample at 6°C
16. PFCs	✓	2 mL	PE, washed with pesticide grade Acetone	Without adding acid Store sample at 6°C



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Tests (Conventional Parameters)		Test required (v)	Total of sample size	Type of container	Preservation method
Combined test or Individual test (Remark 4)	17. Total suspended solids (TSS)	✓	2000 mL total or 2000 mL each	Amber Glass, washed with nitric acid, rinsed thoroughly with distilled water and dried before use	Without adding acid Store sample at 6°C
	18. *Total dissolved solids (TDS)				
19. 5-day Biochemical Oxygen Demand (BOD5)		✓	1000 mL		
20. Heavy Metals except Cr(VI) & Total-P (Remark 6)		✓	9 mL	PE, washed with nitric acid, pre-add 6.5mL of 2M HNO ₃	Acidify to pH 2 with HNO ₃ and store at 6°C
21. Cr(VI)		✓	95 mL	Amber Glass, washed with pesticide grade acetone	Filter by 0.45µm filter in field, fill to full container without air gap; adjust pH to 9.0-9.5 by adding ammonium buffer. Store sample at 6°C
22. Cyanide		✓	500 mL		Adjust pH 12 with 50% NaOH, add 0.05 ml of 10% Na ₂ S ₂ O ₃ , and store sample at 6°C
23. Chemical oxygen demand (COD)		✓	150 mL	Amber Glass;washed with nitric acid; Pre-add 6.5 mL of 2M H ₂ SO ₄	Acidify to pH 2 with H ₂ SO ₄ Store sample at 6°C
24. Phenols		✓	500 mL		Fill to full container without air gap; acidify to pH 2 with H ₂ SO ₄ and store sample at 6°C
25. *Formaldehyde			25 mL		
26. Sulfide (Remark 5)		✓	50 mL	PE, washed with pesticide grade Acetone;	Fill to full container without air gap; add 2 drops of 2M zinc acetate, adjust pH to 9 with 6M NaOH Store sample at 6°C
27. Adsorbable organically bound halogens (AOX)		✓	100 mL	Amber Glass, washed with nitric acid, pre-add 6.5mL of 2M HNO ₃	Add 0.05 ml of 10% Na ₂ S ₂ O ₃ , acidify to pH 2 with H ₂ SO ₄ . Store sample at 6°C
28. Total Coliform (Remark 6)		✓	125 mL	PE, clean, sterile, non-reactive	
29. Persistent foam		✓	N.A.	Foam higher than 45 cm (visual estimation): <u>Yes / No</u>	
30. Sulfite		✓	100 mL	Amber Glass, washed with pesticide grade acetone	Add 1mL of 2.5% EDTA, 0.5g zinc acetate Store sample at 6°C
31. Total-N		✓	100 mL	Amber Glass with wide-mouth PTFE lid;washed with nitric acid; Pre-add 6.5 mL of 2M H ₂ SO ₄	Acidify to pH 2 with H ₂ SO ₄ Store sample at 6°C
32. Ammonium-N		✓	500 mL		
33. Oil and Grease		✓	1000 mL	Amber Glass;washed with nitric acid; Pre-add 6.5 mL of 2M H ₂ SO ₄	
34. Total Hydrocarbon			1000 mL		
35. Luminus Bacteria Toxicity			1000 mL	Amber Glass, washed with nitric acid, rinsed thoroughly with distilled water and dried before use	Without adding acid Store sample at 6°C
36. Sulphate			100 mL		
37. Chloride			100 mL		
38. Others:					
Observation/ Remark:					

Remarks:

- Individual sampling can be performed upon request
- The minimum sampling time for 2016 ZDHC guideline is 6 hours with no more than one hour between discrete samples. Sampling time could be adjusted upon request.
- Scope of ZDHC guideline: Parameter 1, 2, 4-9, 12, 14-17, 19-24, 26-33
Scope of synthetic leather industry: Parameter 1, 2, 4-9, 12, 14-17, 19-33
Scope of MMCF: Parameter 4, 5, 17, 19-24, 26, 27, 31-37
Free primary aromatic amine, pesticides, nitrosamine and TDS are not in the scope of ZDHC Guideline, they are tested upon request.
- Refer to CPSD-AN-G00019-STIP01, locations with those CPSD test capability inside TCD matrix can perform the combined test.
- Refer to CPSD-AN-000570-MTHD for additional pretreatment of sulfide if only dissolved sulfide is required to be tested.
- Refer to CPSD-AN-00613-MTHD for preparation of field blank for specific parameters.

Recorded by: 张振
Full name:

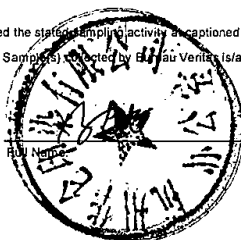
Date: 2021.04.12

Comment from factory: 处理前: N: 30°14'2" E: 120°32'50"

Acknowledgement by factory

I hereby confirmed that Bureau Veritas has completed the stated sampling activity at captioned date, time and location. All sample(s) is/are collected in designated container(s) and without any observation in leakage. Sample(s) tested by Bureau Veritas is/are stored in portable freezer / fridge that is maintained in 1-6°C

Signatory of Factory Representative:



Date: 2021.04.12

APPENDIX D/附录 D – Discharge License/排放标准

1、废水污染物排放许可限值

(1) 主要排放口

排放口编号	排放口名称	污染物种类	许可排放浓度限值 (mg/L)
DW001	污水排放口	化学需氧量	200mg/L
DW001	污水排放口	色度	80
DW001	污水排放口	总镉	0.1mg/L
DW001	污水排放口	可吸附有机卤化物	12mg/L
DW001	污水排放口	氨氮 (NH ₃ -N)	20mg/L
DW001	污水排放口	pH值	6-9
DW001	污水排放口	总氮 (以N计)	30mg/L
DW001	污水排放口	苯胺类	1.0mg/L
DW001	污水排放口	悬浮物	100mg/L
DW001	污水排放口	总磷 (以P计)	1.5mg/L
DW001	污水排放口	五日生化需氧量	50mg/L
DW001	污水排放口	硫化物	0.5mg/L
主要排放口合计			CODcr
			氨氮
			总氮 (以N计)