



# TEST REPORT

Technical Report

(7221)068-0493

June 30<sup>th</sup>,2021

Date Received

May 28<sup>th</sup>,2021

Page 1 of 26

Factory Company Name:

ELVAN KNITTING,DYEING AND FINISHING

Factory Address:

4<sup>TH</sup> INDUSTRIAL ZONE,BLOCK 14, PLOTS 3-12,BORG ELARAB ALEXANDRIA/EGYPT

Project No.:

/

Client Reference No.:

/

Sample Type:

Incoming Water – Grab Samples

Wastewater Before Treatment - Time-Weighted Composite Samples

Wastewater After Treatment - Time-Weighted Composite Samples

Sample Pick Up Date:

May 25<sup>th</sup>,2021

Discharge Type:

Indirect Discharge

Wastewater Discharge to:

Municipal ETP

Off-site ETP name (if applicable):

New Borg El Arab City Authority – Alexandria

Off-site ETP address (if applicable):

New Borg El Arab City

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

New Borg El Arab City Authority – Alexandria

On-Site Effluent Treatment Plant (ETP):

Yes

Test Period:

June 2<sup>nd</sup>,2021-June 25<sup>th</sup>,2021

Testing Option:

Option 2 – Incoming Water, Raw / Untreated Wastewater, Treated Wastewater

Sample Description:

I001) Transparent liquid – Incoming water

I002) Dark Red/Dark Blue liquid -Raw, untreated wastewater

I003) Dark Blue liquid- Discharged Wastewater

Bureau Veritas

Consumer Products Services, Inc.

Yalçın Kores Caddesi No:22 Erdiñ Binaları A Blok

2. Kule 1. Kat 34209 Güneşli, İstanbul / Turkey

Tel: +90.212.494 35 35 Fax: +90.212.494 35 60

email: info.turkey@bvcp.com.tr

website: [www.bureauveritas.com/cps](http://www.bureauveritas.com/cps)

This report is governed by, and incorporates by reference, CPS Conditions of Service as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

The content of this PDF file is in accordance with the original issued reports for reference only.

This Test Report cannot be reproduced, except in full, without prior written permission of the company.



Technical Report:

**(7221)068-0493**

June 30<sup>th</sup>, 2021

Page 2 of 26

**REMARK1:** Analysis of Table1 conventional parameters, except pH, temperature, heavy metals have subcontracted to local accredited laboratories. (Accreditation number no: AB-0363-T AB-0012-T AB-0241-T)

**REMARK**

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

General enquiry and invoicing

Kerem Can [Kerem.can@bureauveritas.com](mailto:Kerem.can@bureauveritas.com)

Technical enquiry-Chemical

Ayca Cevikus [Ayca.cevikus@bureauveritas.com](mailto:Ayca.cevikus@bureauveritas.com)

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.

\* The sampling is agreed with client.

PREPARED BY: **Ayca Cevikus**  
**MEA CDM Manager**  
**Zero Discharge & Higg**  
**Verification&**  
**Environmental**

**Kerem Can**  
**Operation Manager**



Technical Report:

**(7221)068-0493**

June 30<sup>th</sup>, 2021

Page 3 of 26

## Executive Summary

<b>1A) Conventional Parameters</b>	<b>I001</b>	<b>I002</b>	<b>I003</b>
Temperature	NR	NR	N/A
TSS			□
COD			□
Total-N			□
pH Value			□
Color [m <sup>-1</sup> ] (436nm; 525nm; 620nm)			N/A
BOD <sub>5</sub>			□
Ammonium-N			N/A
Total-P			□
AOX			N/A
Oil and Grease			□
Phenol			N/A
Coliform			N/A
Persistent Foam			N/A
ANIONS - Cyanide			N/A
ANIONS - Sulfide			□
ANIONS - Sulfite			□
<b>1B) Conventional Parameters – METALS</b>	N/A	N/A	□

Note / Key :

- □ – Meet discharge license criteria
- ■ – Exceeding discharge license criteria
- NR – Not Requested / Not required
- N/A – Not Applicable

<b>ZDHC MRSLS Substances</b>	<b>I001</b>	<b>I002</b>	<b>I003</b>
2A) APs and APEOs	NR	o	o
2B) Chlorobenzenes and Chlorotoluenes	NR	o	o
2C) Chlorophenols	NR	o	o
2D) Azo Dyes	NR	o	o
2E) Carcinogenic Dyes	NR	o	o
2F) Disperse Dyes	NR	o	o
2G) Flame Retardants	NR	o	o
2H) Glycols	NR	o	o
2I) Halogenated Solvents	NR	o	o
2J) Organotin Compounds	NR	o	o
2K) Perfluorinated and Polyfluorinated Chemicals	NR	o	o
2L) Phthalates	NR	o	o
2M) Poly Aromatic Hydrocarbons	NR	o	o
2N) Volatile Organic Compounds	NR	o	o

Note / Key :

- ● – Detected
- o – Not Detected
- NR – Not Requested
- N/A – Not Applicable



Technical Report:

**(7221)068-0493**

June 30<sup>th</sup>, 2021

Page 4 of 26

## **Objective**

The environment samples were tested for below parameters.

- 1A) Conventional Parameters
- 1B) Conventional Parameters – METALS
- 2A) APs and APEOs
- 2B) Chlorobenzenes and Chlorotoluenes
- 2C) Chlorophenols
- 2D) Azo Dyes
- 2E) Carcinogenic Dyes
- 2F) Disperse Dyes
- 2G) Flame Retardants
- 2H) Glycols
- 2I) Halogenated Solvents
- 2J) Organotin Compounds
- 2K) Perfluorinated and Polyfluorinated Chemicals
- 2L) Phthalates
- 2M) Poly Aromatic Hydrocarbons
- 2N) Volatile Organic Compounds

## **Sampling Plan**

Basically, three environment samples were sampled per factory, including 1) Incoming water; 2) Raw Wastewater and 3) Discharged Wastewater. Total number of sample collected will be depended on the actual factory facilities and manufacturing processes.

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.

Remark :

- Sampling procedure is with reference to below standards:
  - 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.



Technical Report:

**(7221)068-0493**

June 30<sup>th</sup>, 2021

Page 5 of 26

## Test Result

### 1A) Conventional Parameters

#### Temperature

**Test Method** : Measurement U. S. EPA170.1

Tested Item(s)	Result	Unit	Conclusion
I003	▲ 1.1 / max. 33.4 °	deg. C	DATA

Note:

deg. C = degree Celsius (°C)

Discharge License Criteria: Not applicable

#### Total Suspended Solids (TSS)

**Test Method** : Reference to APHA 2540D

Tested Item(s)	Result	Unit	Conclusion
I003	124 (Comply with discharge license)	mg/L	DATA

Note:

mg/L = milligram per liter

Discharge License Criteria: 800 mg/L

#### Chemical Oxygen Demand (COD)

**Test Method** : Reference to APHA 5220D

Tested Item(s)	Result	Unit	Conclusion
I003	829.4 (Comply with discharge license)	mg/L	DATA

Note:

mg/L = milligram per liter

Discharge License Criteria: 1100 mg/L

#### Total Nitrogen (Total-N)

**Test Method** : Reference to APHA 4500-Norg B, SM 4500-NO3 E

Tested Item(s)	Result	Unit	Conclusion
I003	25.38 (Comply with discharge license)	mg/L	DATA

Note:

mg/L = milligram per liter

Discharge License Criteria: 100 mg/L



Technical Report:

**(7221)068-0493**

June 30<sup>th</sup>, 2021

Page 6 of 26

pH Value

**Test Method** : Reference to U. S. EPA 150.1

-	Unit	Result
<b>Test Item(s)</b>	-	I003
<b>Parameter</b>	-	-
Temp. of sample	deg. C	25
pH value of sample	-	7.97 (Comply with discharge license)
<b>Conclusion</b>	-	DATA

Note:

Temp. = Temperature                      deg. C = degree Celsius (°C)

Discharge License Criteria: 6-9.5

Color [m<sup>-1</sup>] (436nm; 525nm; 620nm)

**Test Method** : With reference to ISO 7887-B

Tested Item(s)	Result	Unit	Conclusion
I003	12.4;10.7;9.8	m <sup>-1</sup>	DATA

Note:

Discharge License Criteria: Not applicable

Biochemical Oxygen Demand (BOD<sub>5</sub>)

**Test Method** : Reference to APHA 5210B (5 days)

Tested Item(s)	Result	Unit	Conclusion
I003	246.5 (Comply with discharge license)	mg/L	DATA

Note:

mg/L = milligram per liter

Discharge License Criteria: 600 mg/ L

Ammonium Nitrogen

**Test Method** : Reference to APHA 4500 NH<sub>3</sub>-B,F

Tested Item(s)	Result	Unit	Conclusion
I003	2.3	mg/L	DATA

Note:

mg/L = milligram per liter

Discharge License Criteria: Not applicable



Technical Report:

**(7221)068-0493**

June 30<sup>th</sup>, 2021

Page 7 of 26

Total Phosphorus (Total-P)

**Test Method** : Reference to APHA 4500P B,C

Tested Item(s)	Result	Unit	Conclusion
I003	11.15 (Comply with discharge license)	mg/L	DATA

Note:

mg/L = milligram per liter

Discharge License Criteria: 25 mg/ L

Adsorbable Organic Halogens (AOX)

**Test Method** : Reference to ISO 9562

Tested Item(s)	Result	Unit	Conclusion
I003	3.69	mg/L	DATA

Note:

mg/L = milligram per liter

Discharge License Criteria: Not applicable

Oil and Grease

**Test Method** : Reference to ISO 9377-2

Tested Item(s)	Result	Unit	Conclusion
I003	<0.003 (Comply with discharge license)	mg/L	DATA

Note:

mg/L = milligram per liter

Discharge License Criteria: 100 mg/L

Phenol

**Test Method** : Reference to APHA 5530 B, D

Tested Item(s)	Result	Unit	Conclusion
I003	<0.1	mg/L	DATA

Note:

mg/L = milligram per liter

Discharge License Criteria: Not applicable



Technical Report:

**(7221)068-0493**

June 30<sup>th</sup>, 2021

Page 8 of 26

Coliform

**Test Method** : Reference to ISO 9308-1

Tested Item(s)	Result	Unit	Conclusion
I003	150000	bacteria/ 100 mL	DATA

Note:

bacteria/100 mL = bacteria per 100 milliliters  
Discharge License Criteria: Not applicable

Remark: Due to the colonies is huge, result of coliform content is base on sample having dilution factor 10000 times

Persistent Foam

**Test Method** : Visual

Tested Item(s)	Result	Unit	Conclusion
I003	No foam	-	DATA

Discharge License Criteria: Not Applicable

ANIONS - Cyanide

**Test Method** : Reference to APHA 4500-CN C/ APHA 4500-CN E

Tested Item(s)	Result	Unit	Conclusion
I003	<0.01	mg/L	DATA

Note:

mg/L = milligram per liter  
Discharge License Criteria: Not Applicable

ANIONS - Sulfide

**Test Method** : Reference to APHA 4500 S<sup>2</sup>-D

Tested Item(s)	Result	Unit	Conclusion
I003	0.38 (Comply with discharge license)	mg/L	DATA

Note:

mg/L = milligram per liter  
Discharge License Criteria: 10 mg/L





Technical Report:

**(7221)068-0493**

June 30<sup>th</sup>, 2021

Page 9 of 26

ANIONS - Sulfite

**Test Method** : Reference to SM 4500-SO3-2 C

Tested Item(s)	Result	Unit	Conclusion
I003	0.37 (Comply with discharge license)	mg/L	DATA

Note:

mg/L = milligram per liter

Discharge License Criteria: 10 mg/L



Technical Report:

**(7221)068-0493**

June 30<sup>th</sup>, 2021

Page 10 of 26

1B) Conventional Parameters – METALS

<b>Heavy Metals</b>	<b>I001 (mg/L)</b>	<b>I002 (mg/L)</b>	<b>I003 (mg/L)</b>
Antimony( Sb ) Discharge License Criteria: Not applicable	ND	0.0132	0.0104
Chromium( Cr ), total Discharge License Criteria: 0.5 mg/L	ND	0.0051	0.0047 (Comply with discharge license)
Cobalt( Co ) Discharge License Criteria: Not applicable	ND	ND	ND
Copper( Cu ) Discharge License Criteria: 1.5 mg/L	0.0291	ND	0.0341 (Comply with discharge license)
Nickel (Ni) Discharge License Criteria: 1 mg/L	ND	ND	ND (Comply with discharge license)
Silver (Ag) Discharge License Criteria: Not applicable	ND	ND	ND
Zinc( Zn ) Discharge License Criteria: Not applicable	ND	0.0037	ND
Arsenic (As) Discharge License Criteria: Not applicable	ND	ND	ND
Cadmium( Cd ) Discharge License Criteria: 0.2 mg/L	ND	ND	ND (Comply with discharge license)
Chromium VI( CrVI ) Discharge License Criteria: Not applicable	ND	ND	ND
Lead( Pb ) Discharge License Criteria: 1 mg/L	ND	ND	ND (Comply with discharge license)
Mercury (Hg) Discharge License Criteria: Not applicable	ND	ND	ND



Technical Report:

**(7221)068-0493**

June 30<sup>th</sup>, 2021

Page 11 of 26

Others Priority Chemical Groups

	<b>I001</b>	<b>I002</b>	<b>I003</b>
2A) APs and APEOs	NR	ND	ND
2B) Chlorobenzenes and Chlorotoluenes	NR	ND	ND
2C) Chlorophenols	NR	ND	ND
2D) Azo Dyes	NR	ND	ND
2E) Carcinogenic Dyes	NR	ND	ND
2F) Disperse Dyes	NR	ND	ND
2G) Flame Retardants	NR	ND	ND
2H) Glycols	NR	ND	ND
2I) Halogenated Solvents	NR	ND	ND
2J) Organotin Compounds	NR	ND	ND
2K) Perfluorinated and Polyfluorinated Chemicals	NR	ND	ND
2L) Phthalates	NR	ND	ND
2M) Poly Aromatic Hydrocarbons	NR	ND	ND
2N) Volatile Organic Compounds	NR	ND	ND

Remark :

- Test method, reporting limit and list of chemical are summarized in tables of Appendix A.
- ND = Not detected (Please refer to reporting limit shown in Appendix A.).
- ppb = part(s) per billion; ppm = part(s) per million

**APPENDIX A - Photo of the Sample/ Sampling Location**

I001) Sampling Point  
N/S 29° 59' 37.02"  
E/W 31° 15' 38.25"



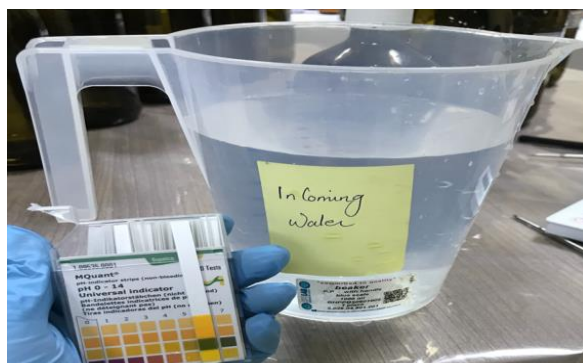
I001) Sampling Point Surrounding Environment  
N/S 29° 59' 37.02"  
E/W 31° 15' 38.25"



I001) All sampled bottles with label



I001) pH value



I001) Sample for Phthalate Testing



I001) Packaging





I002) Sampling Point  
N/S 29° 59' 37.02"  
E/W 31° 15' 38.25"



I002) Sampling Point Surrounding Environment  
N/S 29° 59' 37.02"  
E/W 31° 15' 38.25"



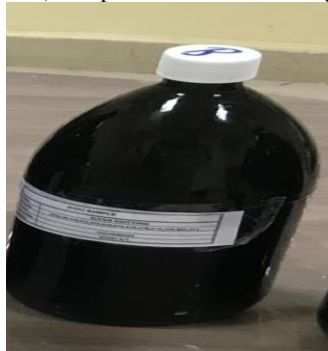
I002) All sampled bottles with label



I002) pH value



I002) Sample for Phthalate Testing



I002) Packaging



I003) Sampling Point  
N/S 29° 59' 37.02"  
E/W 31° 15' 38.25"



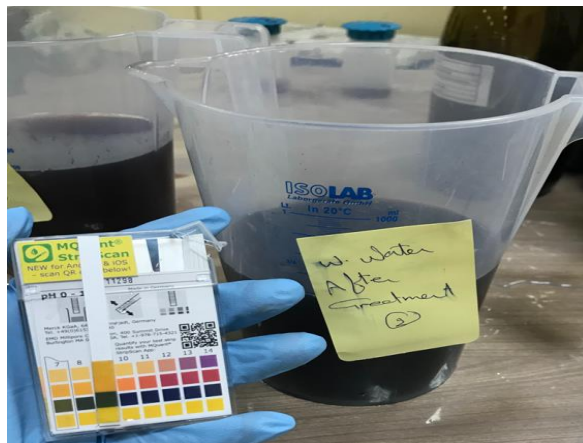
I003) Sampling Point Surrounding Environment  
N/S 29° 59' 37.02"  
E/W 31° 15' 38.25"



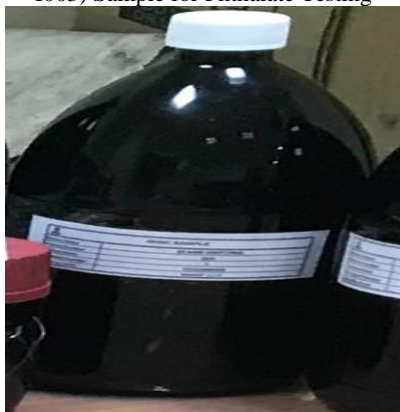
I003) All sampled bottles with label



I003) pH value



I003) Sample for Phthalate Testing



I003) Packaging





## APPENDIX B

Group	Substance (Testing parameter)	CAS No.	Report Limit		Name of the testing method
			Wastewater (ug/L)/(ppb)	Sludge (mg/kg)/(ppm)	
2A. Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers	Nonylphenol NP, mixed isomers	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))  OPEO/NPEO: ISO18857-2 or ASTM D7065(LC/MS; GC/MS or LC/MSMS for n=1,2)  APEO 1-18
	Octylphenol OP, mixed isomers	Various (incl. 140-66-9, 1806-26-4, 27193-28-8)	5	0.4	
	Octylphenol ethoxylates (OPEO)	Various (incl. 9002-93-1, 9036-19-5, 68987-90-6)	5	0.4	
	Nonylphenol ethoxylates (NPEO)	Various (inc. 9016-45-9, 26027-38-3, 37205-87-1, 68412-54-4, 127087-87-0)	5	0.4	
2B. Chlorobenzenes and Chlorotoluenes	Monochlorobenzene	108-90-7	0.2	0.2	USEPA 8260B,8270D. Dichloromethane extraction followed by GC/MS
	1,2-Dichlorobenzene	95-50-1	0.2	0.2	
	1,3-Dichlorobenzene	541-73-1	0.2	0.2	
	1,4-Dichlorobenzene	106-46-7	0.2	0.2	
	1,2,3-Trichlorobenzene	87-61-6	0.2	0.2	
	1,2,4-Trichlorobenzene	120-82-1	0.2	0.2	
	1,3,5-Trichlorobenzene	108-70-3	0.2	0.2	
	1,2,3,4-Tetrachlorobenzene	634-66-2	0.2	0.2	
	1,2,3,5-Tetrachlorobenzene	634-90-2	0.2	0.2	
	1,2,4,5-Tetrachlorobenzene	95-94-3	0.2	0.2	
	Pentachlorobenzene	608-93-5	0.2	0.2	
	Hexachlorobenzene	118-74-1	0.2	0.2	
	2-Chlorotoluene	95-49-8	0.2	0.2	
	3-Chlorotoluene	108-41-8	0.2	0.2	
	4-Chlorotoluene	106-43-4	0.2	0.2	
	2,3-Dichlorotoluene	32768-54-0	0.2	0.2	
	2,4-Dichlorotoluene	95-73-8	0.2	0.2	
	2,5-Dichlorotoluene	19398-61-9	0.2	0.2	
	2,6-Dichlorotoluene	118-69-4	0.2	0.2	
	3,4-Dichlorotoluene	95-75-0	0.2	0.2	
	3,5-Dichlorotoluene	25186-47-4	0.2	0.2	
	2,3,4-Trichlorotoluene	7359-72-0	0.2	0.2	
	2,3,6-Trichlorotoluene	2077-46-5	0.2	0.2	
	2,4,5-Trichlorotoluene	6639-30-1	0.2	0.2	
	2,4,6-Trichlorotoluene	23749-65-7	0.2	0.2	
	3,4,5-Trichlorotoluene	21472-86-6	0.2	0.2	
	2,3,4,5-Tetrachlorotoluene	76057-12-0	0.2	0.2	
	2,3,5,6-Tetrachlorotoluene	29733-70-8	0.2	0.2	
	2,3,4,6-Tetrachlorotoluene	875-40-1	0.2	0.2	
	Pentachlorotoluene	877-11-2	0.2	0.2	
2C. Chlorophenols	2-Chlorophenol	95-57-8	0.5	0.05	USEPA 8270 D Solvent extraction, derivatisation with KOH, acetic anhydride followed by GC/MS
	3-Chlorophenol	108-43-0	0.5	0.05	
	4-Chlorophenol	106-48-9	0.5	0.05	
	2,3-Dichlorophenol	576-24-9	0.5	0.05	
	2,4-Dichlorophenol	120-83-2	0.5	0.05	
	2,5-Dichlorophenol	583-78-8	0.5	0.05	



Technical Report:

**(7221)068-0493**

June 30<sup>th</sup>, 2021

Page 16 of 26

Group	Substance (Testing parameter)	CAS No.	Report Limit		Name of the testing method
			Wastewater (ug/L)/(ppb)	Sludge (mg/kg)/(ppm)	
	2,6-Dichlorophenol	87-65-0	0.5	0.05	
	3,4-Dichlorophenol	95-77-2	0.5	0.05	
	3,5-Dichlorophenol	591-35-5	0.5	0.05	
	2,3,4-Trichlorophenol	15950-66-0	0.5	0.05	
	2,3,5-Trichlorophenol	933-78-8	0.5	0.05	
	2,3,6-Trichlorophenol	933-75-5	0.5	0.05	
	2,4,5-Trichlorophenol	95-95-4	0.5	0.05	
	2,4,6-Trichlorophenol	88-06-2	0.5	0.05	
	3,4,5-Trichlorophenol	609-19-8	0.5	0.05	
	2,3,4,5-Tetrachlorophenol	4901-51-3	0.5	0.05	
	2,3,4,6-Tetrachlorophenol	58-90-2	0.5	0.05	
	2,3,5,6-Tetrachlorophenol	935-95-5	0.5	0.05	
	Pentachlorophenol (PCP)	87-86-5	0.5	0.05	
2D. Dyes - Azo (Forming Restricted Amines)	4,4'-Methylene-bis-(2-chloro-aniline)	101-14-4	0.1	0.2	EN 14362. Reduction step with Sodiumdithionite, solvent extraction, GC/MS or LC/MS
	4,4'-methylenedianiline	101-77-9	0.1	0.2	
	4,4'-Oxydianiline	101-80-4	0.1	0.2	
	4-Chloroaniline	106-47-8	0.1	0.2	
	3,3'-Dimethoxybenzidine	119-90-4	0.1	0.2	
	3,3'-Dimethylbenzidine	119-93-7	0.1	0.2	
	6-methoxy-m-toluidine (p-Cresidine)	120-71-8	0.1	0.2	
	2,4,5-Trimethylaniline	137-17-7	0.1	0.2	
	4,4'-Thiodianiline	139-65-1	0.1	0.2	
	4-Aminoazobenzene	60-09-3	0.1	0.2	
	4-Methoxy-m-phenylenediamine	615-05-4	0.1	0.2	
	4,4'-Methylene-di-o-toluidine	838-88-0	0.1	0.2	
	2,6-Xylidine	87-62-7	0.1	0.2	
	o-Anisidine	90-04-0	0.1	0.2	
	2-Naphthylamine	91-59-8	0.1	0.2	
	3,3'-Dichlorobenzidine	91-94-1	0.1	0.2	
	4-Aminodiphenyl	92-67-1	0.1	0.2	
	Benzidine	92-87-5	0.1	0.2	
	o-Toluidine	95-53-4	0.1	0.2	
	2,4-Xylidine	95-68-1	0.1	0.2	
	4-Chloro-o-toluidine	95-69-2	0.1	0.2	
	4-Methyl-m-phenylenediamine	95-80-7	0.1	0.2	
	o-Aminoazotoluene	97-56-3	0.1	0.2	
	5-nitro-o-toluidine	99-55-8	0.1	0.2	
2E. Dyes- Carcinogenic or Equivalent Concern	C.I. Direct Black 38	1937-37-7	500	10	Liquid Extraction LC/MS
	C.I. Direct Blue 6	2602-46-2	500	10	
	C.I. Acid Red 26	3761-53-3	500	10	
	C.I. Basic Red 9	569-61-9	500	10	
	C.I. Direct Red 28	573-58-0	500	10	
	C.I. Basic Violet 14	632-99-5	500	10	
	C.I. Disperse Blue 1	2475-45-8	500	10	
	C.I. Disperse Blue 3	2475-46-9	500	10	
	C.I. Basic Blue 26 (with Michler's Ketone > 0.1%)	2580-56-5	500	10	
	C.I. Basic Green 4	569-64-2	500	10	





Technical Report:

**(7221)068-0493**

June 30<sup>th</sup>, 2021

Page 17 of 26

Group	Substance (Testing parameter)	CAS No.	Report Limit		Name of the testing method
			Wastewater (ug/L)/(ppb)	Sludge (mg/kg)/(ppm)	
	(malachite green chloride)				
	C.I. Basic Green 4 (malachite green oxalate)	2437-29-8	500	10	
	C.I. Basic Green 4(malachite green)	10309-95-2	500	10	
	Disperse Orange 11	82-28-0	500	10	
2F. Dyes-disperse (sensitizing)	Disperse Yellow 1	119-15-3	50	2	Liquid Extraction LC/MS
	Disperse Blue 102	12222-97-8	50	2	
	Disperse Blue 106	12223-01-7	50	2	
	Disperse Yellow 39	12236-29-2	50	2	
	Disperse Orange 37/59/76	13301-61-6	50	2	
	Disperse Brown 1	23355-64-8	50	2	
	Disperse Orange 1	2581-69-3	50	2	
	Disperse Yellow 3	2832-40-8	50	2	
	Disperse Red 11	2872-48-2	50	2	
	Disperse Red 1	2872-52-8	50	2	
	Disperse Red 17	3179-89-3	50	2	
	Disperse Blue 7	3179-90-6	50	2	
	Disperse Blue 26	3860-63-7	50	2	
	Disperse Yellow 49	54824-37-2	50	2	
	Disperse Blue 35	12222-75-2	50	2	
	Disperse Blue 124	61951-51-7	50	2	
	Disperse Yellow 9	6373-73-5	50	2	
	Disperse Orange 3	730-40-5	50	2	
	Disperse Blue 35	56524-77-7	50	2	
2G. Flame Retardants	Tris(2-chloroethyl) phosphate (TCEP)	115-96-8	5	1	ISO 22032, USEPA527 and USEPA8321B. Dichloromethane extraction GC/MS or LC/MS(-MS)
	Decabromodiphenyl ether (DecaBDE)	1163-19-5	5	1	
	Tris(2,3-dibromopropyl) phosphate (TRIS/TDBPP)	126-72-7	5	1	
	Pentabromodiphenyl ether (PentaBDE)	32534-81-9	5	1	
	Octabromodiphenyl ether (OctaBDE)	32536-52-0	5	1	
	Bis(2,3-dibromopropyl) phosphate (BIS/BDBPP)	5412-25-9	5	1	
	Tris(aziridinyl)-phosphineoxide (TEPA)	545-55-1	5	1	
	Polybromobiphenyls (PBBs)	59536-65-1	5	1	
	Tetrabromobisphenol A (TBBPA)	79-94-7	5	1	
	Hexabromocyclododecane (HBCDD)	3194-55-6	5	1	
	2,2-Bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0	5	1	
	Tris(1,3-dichloroisopropyl) phosphate (TDCP)	13674-87-8	5	1	
	Short chain chlorinated paraffins (SCCPs) (C10-C13)	85535-84-8	5	1	
2H. Glycols	Bis(2-methoxyethyl)-ether	111-96-6	50	10	US EPA 8270



Technical Report:

**(7221)068-0493**

June 30<sup>th</sup>, 2021

Page 18 of 26

Group	Substance (Testing parameter)	CAS No.	Report Limit		Name of the testing method
			Wastewater (ug/L)/(ppb)	Sludge (mg/kg)/(ppm)	
	2-ethoxyethanol	110-80-5	50	10	Liquid Extraction LC/MS
	2-ethoxyethyl acetate	111-15-9	50	10	
	Ethylene glycol dimethyl ether	110-71-4	50	10	
	2-methoxyethanol	109-86-4	50	10	
	2-methoxyethylacetate	110-49-6	50	10	
	2-methoxypropylacetate	70657-70-4	50	10	
	Triethylene glycol dimethyl ether	112-49-2	50	10	
2I. Halogenated Solvents	1,2-Dichloroethane	107-06-2	1	2	USEPA 8260B Headspace GC/MS or Purgeand-Trap-GC/MS
	Methylene Chloride	75-09-2	1	2	
	Trichloroethylene	79-01-6	1	2	
	Tetrachloroethylene	127-18-4	1	2	
2J. Organotin Compounds	Mono-, di- and tri-methyltin derivatives	Multiple	0.01	0.2	ISO 17353 Derivatisation with NaB(C <sub>2</sub> H <sub>5</sub> ) GC/MS
	Mono-, di- and tri-butyltin derivatives	Multiple	0.01	0.2	
	Mono-, di- and tri-phenyltin derivatives	Multiple	0.01	0.2	
	Mono-, di- and tri-octyltin derivatives	Multiple	0.01	0.2	
	Monomethyltin	Multiple	0.01	0.2	
	Dimethyltin	Multiple	0.01	0.2	
	Trimethyltin	Multiple	0.01	0.2	
	Monobutyltin	Multiple	0.01	0.2	
	Dibutyltin	Multiple	0.01	0.2	
	Tributyltin	Multiple	0.01	0.2	
	Monophenyltin	Multiple	0.01	0.2	
	Diphenyltin	Multiple	0.01	0.2	
	Triphenyltin	Multiple	0.01	0.2	
	Monooctyltin	Multiple	0.01	0.2	
	Dioctyltin	Multiple	0.01	0.2	
	Trioctyltin	Multiple	0.01	0.2	
2K. Perfluorinated and Polyfluorinated Chemicals (PFCs)	Perfluorooctanesulfonic acid (PFOS)	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)	335-67-1	0.01	0.10	
	Perfluorobutanesulfonic acid (PFBS)	29420-49-3, 29420-43-3	0.01	0.10	
	Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	0.01	0.10	
	8:2 FTOH	678-39-7	1	1	
	6:2 FTOH	647-42-7	1	1	
2L. Phthalates (including all other esthers of phthalic acid)	Di-2-ethylhexyl phthalate (DEHP)	117-81-7	10	2	US EPA 8270D, ISO 18856 Dichloromethane extraction GC/MS
	Dimethoxyethyl phthalate (DMEP)	117-82-8	10	2	
	Di-n-octyl phthalate (DNOP)	117-84-0	10	2	
	Di-iso-decyl phthalate (DIDP)	26761-40-0	10	2	
	Di-iso-nonyl phthalate (DINP)	28553-12-0	10	2	
	Di-n-hexyl phthalate	84-75-3	10	2	

Group	Substance (Testing parameter)	CAS No.	Report Limit		Name of the testing method
			Wastewater (ug/L)/(ppb)	Sludge (mg/kg)/(ppm)	
	(DnHP)				
	Dibutyl phthalate (DBP)	84-74-2	10	2	
	Butyl benzyl phthalate (BBP)	85-68-7	10	2	
	Dinonyl phthalate (DNP)	84-76-4	10	2	
	Diethyl phthalate (DEP)	84-66-2	10	2	
	Di-n-propyl phthalate (DPRP)	131-16-8	10	2	
	Di-iso-butyl phthalate (DIBP)	84-69-5	10	2	
	Di-cyclohexyl phthalate (DCHP)	84-61-7	10	2	
	Di-iso-octyl phthalate (DIOP)	27554-26-3	10	2	
	1,2-benzenedicarboxylic acid, di-C7-11-branched and linearalkyl esters (DHNUP)	68515-42-4	10	2	
	1,2-benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	10	2	
2M. Poly Aromatic Hydrocarbons (PAHs)	Benzo[a]pyrene (BaP)	50-32-8	1	0.2	DIN 38407-39 Solvent extraction GC/MS
	Anthracene	120-12-7	1	0.2	
	Pyrene	129-00-0	1	0.2	
	Benzo[ghi]perylene	191-24-2	1	0.2	
	Benzo[e]pyrene	192-97-2	1	0.2	
	Indeno[1,2,3-cd]pyrene	193-39-5	1	0.2	
	Benzo[j]fluoranthene	205-82-3	1	0.2	
	Benzo[b]fluoranthene	205-99-2	1	0.2	
	Fluoranthene	206-44-0	1	0.2	
	Benzo[k]fluoranthene	207-08-9	1	0.2	
	Acenaphthylene	208-96-8	1	0.2	
	Chrysene	218-01-9	1	0.2	
	Dibenz[a,h]anthracene	53-70-3	1	0.2	
	Benzo[a]anthracene	56-55-3	1	0.2	
	Acenaphthene	83-32-9	1	0.2	
	Phenanthrene	85-01-8	1	0.2	
	Fluorene	86-73-7	1	0.2	
	Naphthalene	91-20-3	1	0.2	
2N. Volatile Organic Compound (VOCs)	Benzene	71-43-2	1	2	ISO 11423-1 Headspace- or Purge-and-Trap-GC/MS
	Xylene	1330-20-7	1	2	
	o-cresol	95-48-7	1	2	
	p-cresol	106-44-5	1	2	
	m-cresol	108-39-4	1	2	
1A. Conventional Parameters	Temperature	—	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
	TSS	—	N/A	N/A	
	COD	—	N/A	N/A	
	Total-N	—	N/A	N/A	
	pH	—	N/A	N/A	
	Color [m <sup>-1</sup> ] (436nm; 525nm; 620nm)	—	N/A	N/A	
	BOD5	—	N/A	N/A	



Technical Report:

**(7221)068-0493**

June 30<sup>th</sup>, 2021

Page 20 of 26

Group	Substance (Testing parameter)	CAS No.	Report Limit		Name of the testing method
			Wastewater (ug/L)/(ppb)	Sludge (mg/kg)/(ppm)	
	Ammonium-N	—	N/A	N/A	(Foundational, Progressive, and Aspirational).  Cyanide: With reference to APHA 4500 CN—B,C&E and followed by UV analysis
	Total-P	—	N/A	N/A	
	AoX	—	N/A	N/A	
	Oil and Grease	—	N/A	N/A	
	Phenol	—	N/A	N/A	
	Coliform(bacteria/100ml)	—	N/A	N/A	
	Persistent Foam	—	Not visible	Not visible	
	<b>ANIONS</b>				
	Cyanide( CN- )	Various (incl. 57-12-5)	0.02	1	
	Sulfide	—	N/A	N/A	
	Sulfite	—	N/A	N/A	
Group	Substance (Testing parameter)	CAS No.	Report Limit		Name of the testing method
			Wastewater (mg/L) / (ppm)	Wastewater (mg/kg) / (ppm)	
1B. Conventional Parameters - <b>METALS</b>	Antimony( Sb )	7440-36-0	0.001	N/A	Various Acid Digestion with ICP analysis  please refer to ZDHC Wastewater Guidelines for more details on the testing method and the levels (Foundational, Progressive, and Aspirational).  Cr(VI): Various Solvent extraction and derivatisation followed by UV analysis
	Chromium( Cr ), total	7440-47-3	0.001	N/A	
	Cobalt( Co )	7440-48-4	0.001	N/A	
	Copper( Cu )	7440-50-8	0.001	N/A	
	Nickel( Ni )	7440-02-0	0.001	N/A	
	Silver( Ag )	7440-22-4	0.001	N/A	
	Zinc( Zn )	7440-66-6	0.001	N/A	
	Arsenic( As )	7440-38-2	0.001	2	
	Cadmium( Cd )	7440-43-9	0.0001	2	
	Chromium VI( CrVI )	18540-29-9	0.001	2	
	Lead( Pb )	7439-92-1	0.001	2	
	Mercury( Hg )	7439-97-6	0.00005	0.2	

Note / Key :

ppm = part(s) per million; ppb = part(s) per billion  
 U. S. EPA = United States Environmental Protection Agency  
 APHA = American Public Health Association



Technical Report:

(7221)068-0493

June 30<sup>th</sup>, 2021

Page 21 of 26

## APPENDIX C – Onsite Field Data Record Sheet

	FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE (COMPOSITE / INDIVIDUAL SAMPLING)		CPSD-AN-00613-DATA 04
			Issue Date:
			Version No.: 14
			Business Line: Analytical

### General Data

Laboratory Sample Number: 72210680493

Client Name: ELVAN KNITTING, DYEING AND FINISHING

Field Contact Person: SELCUK YAGIZ Phone No: 01000723490

Project (Facility Name and Address): 4TH INDUSTRIAL ZONE, BLOCK 14, PLOTS 3-12, BORG ELARAB ALEXANDRIA/EGYPT

Sampling Location / Description: WASTEWATER AFTER TREATMENT

Sample Identification: Zero discharge with sampling plan

Sample Type: Grab Sample

Name of Sampler: *Mai Adel Mohammed Mohammed Abou-zeid*

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

Date of collection: 25/5/2021

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

\*Note: It would be selected more than one

### Field Data for Wastewater

Arrival Time:		Departure Time:	
Field Parameters	pH:	Temp: °C	Color:
Control No. of field equipment	Flow rate: (volume/min)		
Factory with effluent treatment plant:	Yes No		
Sample matrix:	x Incoming water (If required)		
	Wastewater before treatment		
	Wastewater after treatment – water at discharge point		
Sampler container number			
Recording time	ID	1	2
	Time	9:30 am	7
pH:	7		
Temp (°C):	26.6		
Color (visual estimation):	Transparent		
Flow rate (volume/time)			
Volume collected, mL			
Total volume collected	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,	Without adding acid Store sample at 2-8°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		
15. VOC & Halogenated Solvents (Remark 6)	√	10 mL		
16. PFCs (Remark 6)	√	2 mL	PE, washed with pesticide grade Acetone	Without adding acid Store sample at 2-8°C

72210680493-ELVAN-INCOMING 2

Page 1 of 6





Technical Report:

(7221)068-0493

June 30<sup>th</sup>, 2021

Page 22 of 26

FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE (COMPOSITE / INDIVIDUAL SAMPLING)				CPSD-AN-00613-DATA 04	
				Issue Date:	
				Version No.: 14	
				Business Line: Analytical	
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) 18. Total dissolved solids (TDS)	2000 mL total or 2000 mL each	Amber Glass, washed with nitric acid,	Without adding acid Store sample at 2-8°C	
19. 5-day Biochemical Oxygen Demand (BOD5)		1000 mL			
20. Colour		100 mL			
21. Heavy Metals except Cr(VI) & Total-P (Remark 6)	✓	9 mL	PE, washed with nitric acid	Acidify to pH 2 with HNO <sub>3</sub> and store at 2-8°C	
22. Cyanide		500 mL	Amber Glass, washed with pesticide grade acetone	Adjust pH 12 with 50% NaOH, add 0.05 mL of 10% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> and store sample at 2-8°C	
23. Cr(VI)	✓	95 mL		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 2-8°C	
24. Chemical oxygen demand (COD)		150 mL	Amber Glass, washed with nitric acid,	Acidify to pH 2 with H <sub>2</sub> SO <sub>4</sub> Store sample at 2-8°C	
25. Phenols		500 mL			
26. Oil and Grease & Total Hydrocarbon		1000 mL			
27. Formaldehyde		25 mL		Fill to full container without air gap; acidify to pH 2 with H <sub>2</sub> SO <sub>4</sub> and store sample at 2-8°C	
28. 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 2-8°C	
29. Total Coliform (Remark 6)		125 mL	PE, clean, sterile, non-reactive	Add 0.05 mL of 10% Na <sub>2</sub> CO <sub>3</sub> Store sample at 2-8°C	
30. Faecal Coliform (Remark 6)		125 mL			
31. Persistent foam		N.A.	Foam higher than 45 cm (visual estimation): Yes / No		
32. Sulfite		100 mL	Amber Glass, washed with pesticide grade acetone	Add 1mL of 2.5% EDTA, 0.5g zinc acetate Store sample at 2-8°C	
33. Total-N		100 mL			
34. Ammonium-N		500 mL		Acidify to pH 2 with H <sub>2</sub> SO <sub>4</sub> Store sample at 2-8°C	
35. Adsorbable organically bound halogens (AOX)		100 mL			
36. Acute aquatic toxicity: Luminus Bacteria, Fish Egg, Daphne, Algae,		1000 mL	Amber Glass; washed with nitric acid;	Without adding acid Store sample at 2-8°C	
37. Sulphate		100 mL			
38. Chloride		100 mL			
39. Others:					
Observation/ Remark:					

## \*Remarks:

- Individual sampling can be performed upon request
- The minimum sampling time for 2019 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 1-9, 12, 14-17, 19-26, 28, 29, 31-35  
Scope of synthetic leather industry: Parameter 1-9, 12, 14-21, 23-26, 28, 30, 31, 33, 34, 37, 38  
Scope of MMCF: Parameter 5, 15, 17, 19-21, 23 -26, 28, 33-36  
Free primary aromatic amine, pesticides, nitrosamine and formaldehyde 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:

Full name:

Date:

Comment from factory

## 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) collected by Bureau Veritas is/are stored in portable freezer / fridge that is maintained in 1-6°C

Signatory of Factory Representative:

72210680493-ELVAN-INCOMING 2

Date:

25/05/2021

Page 2 of 6



Technical Report:

(7221)068-0493

June 30<sup>th</sup>, 2021

Page 23 of 26

	<b>FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE (COMPOSITE / INDIVIDUAL SAMPLING)</b>	CPSD-AN-00613-DATA 04
		Issue Date:
		Version No.: 14
		Business Line: Analytical

**General Data**

Laboratory Sample Number: 72210680493

Client Name: ELVAN KNITTING, DYEING AND FINISHING

Field Contact Person: SELCUK YAGIZ Phone No: 01000723490

Project (Facility Name and Address): 4TH INDUSTRIAL ZONE, BLOCK 14, PLOTS 3-12, BORG ELARAB ALEXANDRIA/EGYPT

Sampling Location / Description: WASTEWATER AFTER TREATMENT

Sample Identification: Zero discharge with sampling plan

Sample Type: Composite Sample

Name of Sampler: *Mai Adel Mohammed Mohammed Abou-zeid*

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

Date of collection: *28/5/2021*

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

\*Note: It would be selected more than one

**Field Data for Wastewater**

Arrival Time:		Departure Time:							
Field Parameters	pH :	Temp :		°C	Color :	Flow rate :		(volume/min)	
Control No. of field equipment									
Factory with effluent treatment plant:	Yes				No				
Sample matrix:		Incoming water (If required)							
	x	Wastewater before treatment							
		Wastewater after treatment – water at discharge point							
Sampler container number									
		1	2	3	4	5	6	7	8
Recording time	ID								
	Time	10:00am	11:00am	12:00pm	1:00pm	2:00pm	3:00pm		
pH :		9	9	10	10	10	10		
Temp (°C) :		42.9	43.8	43.6	42.3	40.7	41.7		
Color (visual estimation):		Dark Red	D. Red	D. Red	D. Red	D. Red	D. Blue		
Flow rate (volume/time)									
Volume collected, mL									
Total volume collected		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,	Without adding acid Store sample at 2-8°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		
15. VOC & Halogenated Solvents (Remark 6)	√	10 mL		
16. PFCs (Remark 6)	√	2 mL	PE, washed with pesticide grade Acetone	Without adding acid Store sample at 2-8°C

72210680493-ELVAN-BEFORE 2

Page 1 of 6



Technical Report:

(7221)068-0493

June 30<sup>th</sup>, 2021

Page 24 of 26

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.	Without adding acid Store sample at 2-8°C
	18. Total dissolved solids (TDS)				
19. 5-day Biochemical Oxygen Demand (BOD5)			1000 mL		
20. Colour			100 mL		
21. Heavy Metals except Cr(VI) & Total-P (Remark 6)		✓	9 mL	PE, washed with nitric acid	Acidify to pH 2 with HNO <sub>3</sub> and store at 2-8°C
22. Cyanide			500 mL	Amber Glass, washed with pesticide grade acetone	Adjust pH 12 with 50% NaOH, add 0.05 mL of 10% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> and store sample at 2-8°C
23. Cr(VI)		✓	95 mL	Amber Glass, washed with nitric acid	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 2-8°C
24. Chemical oxygen demand (COD)			150 mL		Acidify to pH 2 with H <sub>2</sub> SO <sub>4</sub> Store sample at 2-8°C
25. Phenols			500 mL		
26. Oil and Grease & Total Hydrocarbon			1000 mL		
27. Formaldehyde			25 mL		Fill to full container without air gap; acidify to pH 2 with H <sub>2</sub> SO <sub>4</sub> and store sample at 2-8°C
28. 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 2-8°C
29. Total Coliform (Remark 6)			125 mL	PE, clean, sterile, non-reactive	Add 0.05 mL of 10% Na <sub>2</sub> CO <sub>3</sub> Store sample at 2-8°C
30. Faecal Coliform (Remark 6)			125 mL		
31. Persistent foam			N.A.	Foam higher than 45 cm (visual estimation): Yes / No	
32. Sulfite			100 mL	Amber Glass, washed with pesticide grade acetone	Add 1mL of 2.5% EDTA, 0.5g zinc acetate. Store sample at 2-8°C
33. Total-N			100 mL	Amber Glass, washed with nitric acid;	Acidify to pH 2 with H <sub>2</sub> SO <sub>4</sub> Store sample at 2-8°C
34. Ammonium-N			500 mL		
35. Adsorbable organically bound halogens (AOX)			100 mL		
36. Acute aquatic toxicity: Luminous Bacteria; Fish Egg; Daphne; Algae;			1000 mL		Without adding acid Store sample at 2-8°C
37. Sulphate			100 mL		
38. Chloride			100 mL		
39. Others:					
Observation/ Remark:					

\*Remarks:

- Individual sampling can be performed upon request.
- The minimum sampling time for 2019 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 1-9, 12, 14-17, 19-26, 28, 29, 31-35  
Scope of synthetic leather industry: Parameter 1-9, 12, 14-21, 23-26, 28, 30, 31, 33, 34, 37, 38  
Scope of MMCF: Parameter 5, 15, 17, 19-21, 23-26, 28, 33-36  
Free primary aromatic amine, pesticides, nitrosamine and formaldehyde are not in the scope of ZDHC Guideline, they are tested upon request.
- Refer to CPSD-AN-00019-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: \_\_\_\_\_  
Full name:

Date: \_\_\_\_\_

Comment from factory

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) collected by Bureau Veritas is/are stored in portable freezer / fridge that is maintained in 1-6°C

Signatory of Factory Representative:  
72210680493-ELVAN-BEFORE 2

Date: 25/09/2021

Page 2 of 6





Technical Report:

(7221)068-0493

June 30<sup>th</sup>, 2021

Page 25 of 26

	<b>FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE (COMPOSITE / INDIVIDUAL SAMPLING)</b>	<b>CPSD-AN-00613-DATA 04</b>
		Issue Date:
		Version No.: 14
		Business Line: Analytical

**General Data**

Laboratory Sample Number: 72210680493  
Client Name: ELVAN KNITTING, DYEING AND FINISHING  
Field Contact Person: SELCUK YAGIZ Phone No: 01000723490  
Project (Facility Name and Address): 4TH INDUSTRIAL ZONE, BLOCK 14, PLOTS 3-12, BORG ELARAB ALEXANDRIA/EGYPT  
Sampling Location / Description: WASTEWATER AFTER TREATMENT  
Sample Identification: Zero discharge with sampling plan  
Sample Type: Composite Sample  
Name of Sampler: *Mai Adel Mohammed Mohammed Abou-zeid*  
Discharge mode: Direct discharge to environment (Specify destination: River, Sea, Stream...) OR Indirect discharge to sewage treatment plant  
Date of collection: *25/ 5/2021*  
Factory Type: Dyeing / Printing / Washing / Finishing / Others (please specify):  
\*Note: It would be selected more than one

**Field Data for Wastewater**

Arrival Time:		Departure Time:							
Field Parameters	pH:	Temp:	°C	Color:		Flow rate:	(volume/min)		
Control No. of field equipment									
Factory with effluent treatment plant:		Yes		No					
Sample matrix:		Incoming water (If required)							
		Wastewater before treatment							
	x	Wastewater after treatment – water at discharge point							
Sampler container number									
	1	2	3	4	5	6	7	8	
Recording time	ID								
	Time	10:00am	11:00am	12:00pm	1:00pm	2:00pm	3:00pm		
pH:		8	8	8	8	8	8		
Temp (°C):		32.3	32.8	33.4	32.9	32.6	32.8		
Color (visual estimation):		Dark Blue	D. Blue	D. Blue	D. Blue	D. Blue	D. Blue		
Flow rate (volume/time)									
Volume collected, mL									
Total volume collected									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	1000 mL total or 1000 mL each		
	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	Amber Glass, washed with nitric acid.	Without adding acid Store sample at 2-8°C
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		
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 2-8°C
16. PFCs (Remark 6)	✓	2 mL	PE, washed with pesticide grade Acetone	Without adding acid Store sample at 2-8°C

72210680493-ELVAN-AFTER 2

Page 1 of 6



Technical Report:

(7221)068-0493

June 30<sup>th</sup>, 2021

Page 26 of 26

FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE (COMPOSITE / INDIVIDUAL SAMPLING)				CPSD-AN-00613-DATA 04	
				Issue Date:	
				Version No.: 14	
				Business Line: Analytical	
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,	Without adding acid Store sample at 2-8°C	
	18. Total dissolved solids (TDS)				
19. 5-day Biochemical Oxygen Demand (BOD5)	✓	1000 mL	PE, washed with nitric acid	Acidify to pH 2 with HNO <sub>3</sub> and store at 2-8°C	
20. Colour	✓	100 mL		Acidify to pH 2 with HNO <sub>3</sub> and store at 2-8°C	
21. Heavy Metals except Cr(VI) & Total-P (Remark 6)	✓	9 mL		Acidify to pH 2 with HNO <sub>3</sub> and store at 2-8°C	
22. Cyanide	✓	500 mL		Adjust pH 12 with 50% NaOH, add 0.05 mL of 10% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> and store sample at 2-8°C	
23. Cr(VI)	✓	95 mL	Amber Glass, washed with nitric acid	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 2-8°C	
24. Chemical oxygen demand (COD)	✓	150 mL		Acidify to pH 2 with H <sub>2</sub> SO <sub>4</sub> Store sample at 2-8°C	
25. Phenols	✓	500 mL		Acidify to pH 2 with H <sub>2</sub> SO <sub>4</sub> Store sample at 2-8°C	
26. Oil and Grease & Total Hydrocarbon	✓	1000 mL		Acidify to pH 2 with H <sub>2</sub> SO <sub>4</sub> Store sample at 2-8°C	
27. Formaldehyde		25 mL		Fill to full container without air gap; acidify to pH 2 with H <sub>2</sub> SO <sub>4</sub> and store sample at 2-8°C	
28. 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 2-8°C	
29. Total Coliform (Remark 6)	✓	125 mL	PE, clean, sterile, non-reactive	Add 0.05 mL of 10% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Store sample at 2-8°C	
30. Faecal Coliform (Remark 6)		125 mL			
31. Persistent foam		N.A.	Foam higher than 45 cm (visual estimation): Yes / No		
32. Sulfite	✓	100 mL	Amber Glass, washed with pesticide grade acetone	Add 1mL of 2.5% EDTA, 0.5g zinc acetate Store sample at 2-8°C	
33. Total-N	✓	100 mL	Amber Glass, washed with nitric acid,	Acidify to pH 2 with H <sub>2</sub> SO <sub>4</sub> Store sample at 2-8°C	
34. Ammonium-N	✓	500 mL		Acidify to pH 2 with H <sub>2</sub> SO <sub>4</sub> Store sample at 2-8°C	
35. Adsorbable organically bound halogens (AOX)	✓	100 mL		Without adding acid Store sample at 2-8°C	
36. Acute aquatic toxicity: Luminus Bacteria; Fish Egg; Daphne; Algae;		1000 mL			
37. Sulphate		100 mL			
38. Chloride		100 mL			
39. Others:					
Observation/ Remark:					

## Remarks:

- Individual sampling can be performed upon request
- The minimum sampling time for 2019 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 1-9, 12, 14-17, 19-26, 28, 29, 31-35  
Scope of synthetic leather industry: Parameter 1-9, 12, 14-21, 23-26, 28, 30, 31, 33, 34, 37, 38  
Scope of MMCF: Parameter 5, 15, 17, 19-21, 23 - 26, 28, 33-35  
Free primary aromatic amine, pesticides, nitrosamine and formaldehyde 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:

Full name:

Date:

Comment from factory

## 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) collected by Bureau Veritas is/are stored in portable freezer / fridge that is maintained in 1-6°C

Signatory of Factory Representative:

72210680493-ELVAN-AFTER 2

Date:

25/05/2021

Page 2 of 6