SOFTLINES WASTEWATER TESTING

TEST REPORT LA-240452

Number: FILECA

Date of sampling	06/03/2024
Reporting Date	18/03/2024

Audit ID	164830	Audit firm	INTERTEK RUMANIA
Company name	FILECA INDUSTRY SA		
Contact person	GIACOMO LIVI		
Type of tax - tax ID no	CIF for Companies with VAT Registration - 16025605		
Address	str. VALEA VIILOR 1/77		
Region state province	BISTRITA NASAUD		
Town city / village	BECLEAN		
Zip/Post code	425100		
Country	RUMANIA		

Type of wastewater discharge				
Type of wastewater discharge:	Indirect discharge			
On-site effluent treatment plant (ETP):	NO			
Pre - treatment:	YES			
	Preliminary	Primary	Secondary/Biological	Tertiary
	☐ Screening/ Sieving/Grit Remover ☐ Homogenization tank ☑ pH correction ☑ Other ☑ None	☑ Coagulation/Flocculation ☑ Dissolved air flotation (DAF) ☐ Sedimentation tanks or Settler/Clarifier ☑ Other	☐ Activated sludge process Aerobic reactor ☐ Biological Biofilm reac (MBBR, SAF, RBC...). ☐ BSequencing batch reactor (SBR) ☐ Other	☐ Absorption with activated carbon ☐ High rate filtration ☐ Advanced oxidation techniques (Ozone, Fenton reaction, photo catalytic degradation...) ☐ Other
Description of discharge:	INDIRECT DISCHARGE – AT MUNICIPALITY ETP.			
[If direct discharge] ambient temperature of receiving water body (ºC):	NA			
Average total industrial wastewater generated (m3/day):	208 m3/day			

Sludge Disposal Pathway	A	

Sampler accreditation certification number (ZDHC):			C74D106818042
Sample description	**Simple**	**Composite**	**Comments**
(1) Untreated wastewater (BT)	NA	[Colour dark blue, composite sample at 07:30; 08:30; 09:30, 10:00, 10:30, 11:30, 12:30] [Sampling location: Latitude 47.17272, Longitude 24.14804]	[7,95 PH/ 14.0 C/ DO 3.6/ FCL 0,00 mg/L 7,65 PH/ 17.8 C/ DO 8.6/ FCL 0,00 mg/L 6,83 PH/ 23.1 C/ DO 7.0/ FCL 0,03 mg/L 5,75 PH/ 49.1 C/ DO 5.2/ FCL 0,29 mg/L 6,20 PH/ 39.7 C/ DO 6.3/ FCL 0,00 mg/L 4,97 PH/ 49.7 C/ DO 5.8/ FCL 0,00 mg/L 5,10 PH/ 46.2 C/ DO 6.3/ FCL 0,22 mg/L]
(2) Effluent (AT)	NA	[Colour blue, composite sample at 07:30; 08:30; 09:30, 10:00, 10:30, 11:30, 12:30] [Sampling location: Latitude 47.17272, Longitude 24.14804]	[9.08 PH/ 18.2 C/ DO 6.3/ FCL 0,12 mg/L 9.18 PH/ 22.0 C/ DO 5.1/ FCL 0,29 mg/L 9.35 PH/ 19.5 C/ DO 6.9/ FCL 0,36 mg/L 9.55 PH/ 26.7 C/ DO 1.1/ FCL 0,37 mg/L 9.57 PH/ 22.4 C/ DO 6.6/ FCL 0,09 mg/L 8.52 PH/ 27.3 C/ DO 1.4/ FCL 0,62 mg/L 6.89 PH/ 27,5 C/ DO 6.7/ FCL 0,48 mg/L]
(3) Sludge	[Colour blue, grab sample at 10:00] [Sampling location: Latitude 47.17272, Longitude 24.14804]	NA	[PH:8.84]

Local Legal Data	
Local Legal Standard name [a]	SC AQUABIS SA
Local legal standard no. [a]:	NA
Parameters (ZDHC WWSG V2.1, Table 2-3) exceeded local regulation:	No exceeded
Discharge permit provided:	Yes

Internal description – Intertek Lab Issuing Final Test Report	
Sampling laboratory	INTERTEK RUMANIA
Testing laboratory	INTERTEK IBÉRICA SPAIN S.L.U.
Date received sample	07/03/2024
Date and time of the beginning of sampling	06/03/2024, 07:30
Date and time of the end of sampling	06/03/2024, 12:30
Testing period	07/03/2024 to 14/03/2024
Reporting date	15/03/2024
Arrival Temperature at Lab	10.5ºC (TT)
Internal codification number	LA-240452
Reference sample number	FILECA
Comments	Maximum recommended temperature during transportation has been exceeded, so the results may not reflect the initial state of the sample (T), the applicant has approved the testing performance.

Summary of test results		
Wastewater/ MRSL - Test items	**Testing period**	**Sample 1 (Before treatment)**
Alkylphenols (APs) & Alkylphenol ethoxylates (APEOs)	From 11/03/2024 to 13/03/2024	ND
Anti - Microbials & Biocides	From 08/03/2024 to 11/03/2024	ND
Chlorinated parafins	From 11/03/2024 to 13/03/2024	ND
Chlorobenzenes and Chlorotoluenes	From 07/03/2024 to 08/03/2024	ND
Chlorophenols	From 08/03/2024 to 11/03/2024	ND
Dimethyl Formamide (DMFa) (*)	From 12/03/2024 to 14/03/2024	ND
Dyes – Carcinogenic or Equivalent Concern	From 11/03/2024 to 13/03/2024	ND
Dyes – Disperse (Allergenic)	From 11/03/2024 to 13/03/2024	ND
Dyes-Navy Blue Colourant	From 11/03/2024 to 13/03/2024	ND
Flame retardants	From 08/03/2024 to 11/03/2024	ND
Glycols	From 11/03/2024 to 13/03/2024	ND
Halogenated solvents	From 07/03/2024 to 08/03/2024	D
Organotin compounds	From 07/03/2024 to 08/03/2024	ND
Other/Miscellaneous Chemicals (^)	From 11/03/2024 to 13/03/2024	ND
Perfluorinated chemicals (PFCs)	From 12/03/2024 to 14/03/2024	ND
Phthalates	From 12/03/2024 to 14/03/2024	ND
Polycyclic aromatic hydrocarbons (PAHs)	From 07/03/2024 to 08/03/2024	ND
Restricted Aromatic Amines (Cleavable from Azo- colourants) Azo dyes	From 11/03/2024 to 13/03/2024	ND
UV Absorbers	From 08/03/2024 to 11/03/2024	ND
Volatile organic compounds (VOCs)	From 07/03/2024 to 08/03/2024	ND

Wastewater / Heavy metals - Test items	Testing period	Sample 2 (After treatmet)		
		Foundational	Progressive	Aspirational
Chromium (VI)	From 07/03/2024 to 07/03/2024	Meet		
Arsenic	From 11/03/2024 to 12/03/2024			Meet
Cadmium	From 11/03/2024 to 12/03/2024			Meet
Lead	From 11/03/2024 to 12/03/2024			Meet
Mercury	From 11/03/2024 to 12/03/2024			Meet

Wastewater / Conventional parameters - Test items	Testing period	Sample 2 (After treatmet)		
		Foundational	Progressive	Aspirational
pH[f]		NA		
Temperature difference[f]			NA	
E.coli		NA		
Colour			NA	
Persistent foam[f]		NA		
Wastewater flowrate[f]		NA		
Ammonium-Nitrogen			NA	
AOX			NA	
Biochemical Oxygen Demand (BOD_5)			NA	
Chemical Oxygen Demand (COD)			NA	
Dissolved Oxygen (DO) [f]		NA		
Oil & Grease			NA	
Total Phenols / Phenol Index			NA	
Total Chlorine [f]		NA		
Total Dissolved Solids (TDS)		NA		
Total Nitrogen			NA	
Total Phosphorus			NA	
Total Suspended Solids (TSS)			NA	

Wastewater / Anions - Test items	Testing period	Sample 2 (After treatmet)		
		Foundational	Progressive	Aspirational
Chloride		NA		
Cyanide, total			NA	
Sulfate		NA		
Sulfide			NA	
Sulfite			NA	

Sludge / Heavy metals - Test items	Testing period	Sample 3: Sludge (Total)	Sample 3: Sludge (Leachate)
Antimony	From 11/03/2024 to 12/03/2024	Meet	NA
Arsenic	From 11/03/2024 to 12/03/2024	Meet	NA
Barium	From 11/03/2024 to 12/03/2024	Meet	NA
Cadmium	From 11/03/2024 to 12/03/2024	Meet	NA
Cobalt	From 11/03/2024 to 12/03/2024	Meet	NA
Copper	From 11/03/2024 to 12/03/2024	Not meet	NA
Lead	From 11/03/2024 to 12/03/2024	Not meet	D
Nickel	From 11/03/2024 to 12/03/2024	Meet	NA
Selenium	From 11/03/2024 to 12/03/2024	Meet	NA
Silver	From 11/03/2024 to 12/03/2024	Meet	NA
Chromium (total)	From 11/03/2024 to 12/03/2024	Not meet	D
Zinc	From 11/03/2024 to 12/03/2024	Not meet	NA
Chromium VI	From 11/03/2024 to 12/03/2024	Meet	NA
Mercury	From 11/03/2024 to 12/03/2024	Meet	NA

Sludge / Anion - Test items	Testing period	Sample 3: Sludge
Cyanide	From 11/03/2024 to 11/03/2024	Meet

Sludge / Conventional parameters - Test items	Testing period	Sample 3: Sludge
pH	From 07/03/2024 to 08/03/2024	Meet
% Solids	From 07/03/2024 to 08/03/2024	16
Paint filter test	From 07/03/2024 to 08/03/2024	Not meet
Faecal coliform	From 07/03/2024 to 08/03/2024	Meet

Sludge / MRSL - Test items	Testing period	Sample 3: Sludge
Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers	From 11/03/2024 to 13/03/2024	ND
Polycyclic Aromatic Hydrocarbons (PAHs)	From 07/03/2024 to 08/03/2024	ND
Chlorotoluenes	From 07/03/2024 to 08/03/2024	ND

Remark (Indicated in each parameter)
ND = Not detected (less than lab reporting limit)
D = Detected
N/A = Not applicable (Out of scope according to ZDHC WWSG v2.1)
NT = Not tested (Did not test according to applicant's request)
(S) = The samples were subcontracted to Intertek [xxxxx] for testing.
(T) = If sample temperature is greater than 8°C and less than 10°C when received from the laboratory.
(TT) = If sample temperature is exceeded 10°C when received from the laboratory.
(@) = Maximum holding time exceeded.
(*) = Sample and report for mock leather.
(^) = Borate, zinc salt would report ND when total boron or total zinc less than 100 µg/L.
[f] = On-site test by sampler.
[a] = The local legal standard name and legal standard no. is referenced to discharge permit (or contractual agree by CETP) that provided by applicant.

This report shown the test result of the environment samples of above factory which collected on specific date and time. The results of this report shall not be used for any regulatory compliance purposes.

For and on behalf of
Intertek Ibérica Spain S.L.U.

Miriam Laca , Environmental Manager

Test results

1. Conventional parameters

Wastewater/ Conventional parameters - Test items	Test method	Limit			Lab Reporting Limit	Result sample 2 (After treatment)	Unit
		Foundational	Progressive	Aspirational			
Temperature	EPA 170.1	35°C	30°C	25°C	NA	NA	°C
Temperature difference [ºC]	EPA 170.1	Δ+15ºC	Δ+10ºC	Δ+5ºC	NA	NA	[f] ºC
TSS	EPA 160.2	50 mg/L	15 mg/L	5 mg/L	4 mg/L	NA	mg/L
Chemical Oxygen Demand	ISO 6060	150 mg/L	80 mg/L	40 mg/L	30 mg/L	NA	mg/L
Total-N	ISO11905-01/DIN 38405-9	20 mg/L	10 mg/L	5 mg/L	0.5 mg/L	NA	mg/L
pH	EPA 150.1	6-9			3-13	NA	[f] pH
Colour (436 nm ; 525 nm ; 620nm)	ISO 7887-B	7;5;3	5;3;2	2;1;1	NA	NA	[m-1]
Biochemical Oxygen Demand (BOD5)	EPA 5210	30 mg/L	15 mg/L	8 mg/L	3 mg/L	NA	mg/L
Ammonium-Nitrogen	EPA 350.1	10 mg/L	1 mg/L	0.5 mg/L	0.5 mg/L	NA	mg/L
Total-P	EPA200.8	3 mg/L	0.5 mg/L	0.1 mg/L	0.05 mg/L	NA	mg/L
AOX	ISO 9562	3 mg/L	0.5 mg/L	0.1 mg/L	0.05 mg/L	NA	mg/L
Oil and grease	EPA1664-B	10 mg/L	2 mg/L	0.5 mg/L	5 mg/L	NA	mg/L
Phenol	SM5530	0.5 mg/L	0.01 mg/L	0.001 mg/L	0.1 mg/L	NA	mg/L
E. Coli	SM 9221B / SM 9221F&G	126 [MPN/100-ml]			126 [MPN/100-ml]	NA	[MPN/100-ml]
Foam	/	Not visible	Not visible	Not visible	NA	NA	[f]
Cyanide	ISO 6703	0.2 mg/L	0.1 mg/L	0.05 mg/L	0.01 mg/L	NA	mg/L
Sulfide	SM 4500-S2-D	0.5 mg/L	0.05 mg/L	0.01 mg/L	0.1 mg/L	NA	mg/L
Sulphite	UNE ISO 10304-3	2 mg/L	0.5 mg/L	0.2 mg/L	0.2 mg/L	NA	mg/L
Dissolved Oxygen (DO)	ISO 5814	Sample and report only	Sample and report only	Sample and report only	1 mg/L	NA	[f] mg/L
Total Chlorine	USEPA 330.5	Sample and report only	Sample and report only	Sample and report only	0.05 mg/L	NA	[f] mg/L
Total Dissolved Solids (TDS)	SM 2540-C	Sample and report only	Sample and report only	Sample and report only	10 mg/L	NA	mg/L
Chloride	SM 4110-C	Sample and report only	Sample and report only	Sample and report only	1 mg/L	NA	mg/L
Sulfate	SM 4110-C	Sample and report only	Sample and report only	Sample and report only	5 mg/L	NA	mg/L
Wastewater Flowrate	/				NA	NA	[f] m3/day

△ is the degree above ambient temperature of receiving water body.

2. Heavy metals

With reference to ISO 11885, ISO 12846, ISO 17852, US EPA 200.7, US EPA 200.8, US EPA 6010c, US EPA 6020a, US EPA 218.6 and by Inductively Coupled Argon Plasma-Mass Spectrometry (ICP-MS) analysis.
Chromium VI: With reference to ISO 18412, Colourimetric UV/VIS.

Heavy metals	CAS no.	Limit			Lab Reporting limit (mg/L)	Result sample 2 (After treatment)	Unit
		Foundational	Progressive	Aspirational			
Arsenic (As)	Various	0.05 mg/L	0.01 mg/L	0.005 mg/L	0.0005	ND	mg/L
Cadmium (Cd)	Various	0.1 mg/L	0.05 mg/L	0.01 mg/L	0.0002	ND	mg/L
Mercury (Hg)	Various	0.01 mg/L	0.005 mg/L	0.001 mg/L	0.0003	ND	mg/L
Lead (Pb)	Various	0.1 mg/L	0.05 mg/L	0.01 mg/L	0.0005	ND	mg/L
Antimony (Sb)	Various	0.1 mg/L	0.05 mg/L	0.01 mg/L	0.0005	NA	mg/L
Cobalt (Co)	Various	0.05 mg/L	0.02 mg/L	0.01 mg/L	0.001	NA	mg/L
Nickel (Ni)	Various	0.2 mg/L	0.1 mg/L	0.05 mg/L	0.001	NA	mg/L
Silver (Ag)	Various	0.1 mg/L	0.05 mg/L	0.005 mg/L	0.005	NA	mg/L
Copper (Cu)	Various	1 mg/L	0.5 mg/L	0.25 mg/L	0.001	NA	mg/L
Zinc (Zn)	Various	5.0 mg/L	1.0 mg/L	0.5 mg/L	0.01	NA	mg/L
Total Chromium	Various	0.2 mg/L	0.1 mg/L	0.05 mg/L	0.001	NA	mg/L
Chromium VI (Cr VI)	Various	0.05 mg/L	0.005 mg/L	0.001 mg/L	0.05	ND	mg/L
Barium	Various	Sample and Report only	Sample and Report only	Sample and Report only	0.001	NA	mg/L
Selenium	Various	Sample and Report only	Sample and Report only	Sample and Report only	0.002	NA	mg/L
Tin	Various	Sample and Report only	Sample and Report only	Sample and Report only	0.001	NA	mg/L

3. Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers.
Test method: modified from to ISO 18254-1 (LC-MS/MS analysis).

Alkylphenols (APs) & Alkylphenolethoxylates (APEOs)	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	Unit
Octylphenol (OP), mixed isomers	140-66-9/ 1806-26-4/ 27193-28-8	5	5	ND	µg/L
Nonylphenol (NP), mixed isomers	104-40-5/ 11066-49-2/ 25154-52-3/84852-15-3	5	5	ND	µg/L
Octylphenolethoxylates (OPEOs)	9002-93-1; 9036-19-5; 68987-90-6	5	5	ND	µg/L
Nonylphenolethoxylates (NPEOs)	9016-45-9/26027-38-3/ 37205-87-1/68412-54-4/127087-87-0	5	5	ND	µg/L

4. Chlorobenzenes & Chlorotoluenes
Test method: modified from to EPA 8260D, EPA 8270E (GC-MS analysis).

Chlorobenzenes & Chlorotoluenes	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	Unit
Chlorobenzene	108-90-7	0.2	0.2	ND	µg/L
1,2-Dichlorobenzene	95-50-1	0.2	0.2	ND	µg/L
1,3-Dichlorobenzene	541-73-1	0.2	0.2	ND	µg/L
1,4-Dichlorobezene	106-46-7	0.2	0.2	ND	µg/L
1,2,3-Trichlorobenzene	87-61-6	0.2	0.2	ND	µg/L
1,2,4-Trichlorobenzene	120-82-1	0.2	0.2	ND	µg/L
1,3,5-Trichlorobenzene	108-70-3	0.2	0.2	ND	µg/L
1,2,3,4-Tetrachlorobenzene	634-66-2	0.2	0.2	ND	µg/L
1,2,3,5-Tetrachlorobenzene	634-90-2	0.2	0.2	ND	µg/L
1,2,4,5-Tetrachlorobenzene	95-94-3	0.2	0.2	ND	µg/L
Pentachlorobenzene	608-93-5	0.2	0.2	ND	µg/L
Hexachlorobenzene	118-74-1	0.2	0.2	ND	µg/L
2-Chlorotoluene	95-49-8	0.2	0.2	ND	µg/L
3-Chlorotoluene	108-41-8	0.2	0.2	ND	µg/L
4-Chlorotoluene	106-43-4	0.2	0.2	ND	µg/L
2,3-Dichlorotoluene	32768-54-0	0.2	0.2	ND	µg/L
2,4-Dichlorotoluene	95-73-8	0.2	0.2	ND	µg/L
2,5-Dichlorotoluene	19398-61-9	0.2	0.2	ND	µg/L
2,6-Dichlorotoluene	118-69-4	0.2	0.2	ND	µg/L
3,4-Dichlorotoluene	95-75-0	0.2	0.2	ND	µg/L
3,5-Dichlorotoluene	25186-47-4	0.2	0.2	ND	µg/L
2,3,4-Trichlorotoluene	7359-72-0	0.2	0.2	ND	µg/L
2,3,6-Trichlorotoluene	2077-46-5	0.2	0.2	ND	µg/L
2,4,5-Trichlorotoluene	6639-30-1	0.2	0.2	ND	µg/L

2,4,6-Trichlorotoluene	23749-65-7	0.2	0.2	ND	µg/L
3,4,5-Trichlorotoluene	21472-86-6	0.2	0.2	ND	µg/L
2,3,4,5-Tetrachlorotoluene	76057-12-0	0.2	0.2	ND	µg/L
2,3,5,6-Tetrachlorotoluene	29733-70-8	0.2	0.2	ND	µg/L
2,3,4,6-Tetrachlorotoluene	875-40-1	0.2	0.2	ND	µg/L
Pentachlorotoluene	877-11-2	0.2	0.2	ND	µg/L

5. Chlorophenols
Test method: modified from to EPA 8270E (GC-MS).

Chlorophenols	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	Unit
2-Chlorophenol	95-57-8	0.5	0.5	ND	µg/L
3-Chlorophenol	108-43-0	0.5	0.5	ND	µg/L
4-Chlorophenol	106-48-9	0.5	0.5	ND	µg/L
2,3-Dichlorophenol	576-24-9	0.5	0.5	ND	µg/L
2,4-Dichlorophenol	120-83-2	0.5	0.5	ND	µg/L
2,5-Dichlorophenol	583-78-8	0.5	0.5	ND	µg/L
2,6-Dichlorophenol	87-65-0	0.5	0.5	ND	µg/L
3,4-Dichlorophenol	95-77-2	0.5	0.5	ND	µg/L
3,5-Dichlorophenol	591-35-5	0.5	0.5	ND	µg/L
2,3,4-Trichlorophenol	15950-66-0	0.5	0.5	ND	µg/L
2,3,5-Trichlorophenol	933-78-8	0.5	0.5	ND	µg/L
2,3,6-Trichlorophenol	933-75-5	0.5	0.5	ND	µg/L
2,4,5-Trichlorophenol	95-95-4	0.5	0.5	ND	µg/L
2,4,6-Trichlorophenol	88-06-2	0.5	0.5	ND	µg/L
3,4,5-Trichlorophenol	609-19-8	0.5	0.5	ND	µg/L
2,3,4,5-Tetrachlorophenol	4901-51-3	0.5	0.5	ND	µg/L
2,3,4,6-Tetrachlorophenol	58-90-2	0.5	0.5	ND	µg/L
2,3,5,6-Tetrachlorophenol	935-95-5	0.5	0.5	ND	µg/L
Pentachlorophenol (PCP)	87-86-5	0.5	0.5	ND	µg/L

6. Restricted Aromatic Amines (Cleavable from Azo- colourants)
Test method: modified from to ISO 14362-1/3 (LC-MS/MS).

Azo Dyes	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	Unit
4,4'-Methylene-bis(2-chloroaniline)	101-14-4	0.1	0.1	ND	µg/L
4,4'-Diaminodiphenylmethane	101-77-9	0.1	0.1	ND	µg/L
4,4'-Oxydianiline	101-80-4	0.1	0.1	ND	µg/L
4-Chloroaniline	106-47-8	0.1	0.1	ND	µg/L
3,3'-Dimethoxybenzidine	119-90-4	0.1	0.1	ND	µg/L
3,3'-Dimethylbenzidine	119-93-7	0.1	0.1	ND	µg/L
p-Cresidine	120-71-8	0.1	0.1	ND	µg/L
2,4,5-Trimethylaniline	137-17-7	0.1	0.1	ND	µg/L
4,4'-Thiodianiline	139-65-1	0.1	0.1	ND	µg/L
4-Aminoazobenzene	60-09-3	0.1	0.1	ND	µg/L
4-methoxy-m-phenylenediamine	615-05-4	0.1	0.1	ND	µg/L
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	0.1	0.1	ND	µg/L
2,6-Xylidine	87-62-7	0.1	0.1	ND	µg/L
o-Anisidine	90-04-0	0.1	0.1	ND	µg/L
2-Naphthylamine	91-59-8	0.1	0.1	ND	µg/L
3,3'-Dichlorobenzidine	91-94-1	0.1	0.1	ND	µg/L
4-Aminobiphenyl	92-67-1	0.1	0.1	ND	µg/L
Benzidine	92-87-5	0.1	0.1	ND	µg/L
o-Toluidine	95-53-4	0.1	0.1	ND	µg/L
2,4-Xylidine	95-68-1	0.1	0.1	ND	µg/L
4-Chloro-o-toluidine	95-69-2	0.1	0.1	ND	µg/L
4-Methyl-m-phenylenediamine	95-80-7	0.1	0.1	ND	µg/L
o-Aminoazotoluene	97-56-3	0.1	0.1	ND	µg/L
5-Nitro-o-toluidine	99-55-8	0.1	0.1	ND	µg/L
2-Naphthylammoniumacetate	553-00-4	0.1	0.1	ND	µg/L
2,4,5-trimethylaniline hydrochloride	21436-97-5	0.1	0.1	ND	µg/L
4-chloro-o-toluidinium chloride	3165-93-3	0.1	0.1	ND	µg/L
4-methoxy-m-phenylene diammonium sulphate; 2,4-diaminoanisole sulphate	39156-41-7	0.1	0.1	ND	µg/L

7. Dyes – Carcinogenic or Equivalent Concern
Test method: modified from to DIN 54231:2022-09 (LC-MS).

Carcinogenic dyes	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	Unit
C.I. Direct Black 38	1937-37-7	500	500	ND	µg/L
C.I. Direct Blue 6	2602-46-2	500	500	ND	µg/L
C.I. Acid Red 26	3761-53-3	500	500	ND	µg/L
C.I. Basic Red 9	569-61-9	500	500	ND	µg/L
C.I. Direct Red 28	573-58-0	500	500	ND	µg/L
C.I. Basic Violet 14	632-99-5	500	500	ND	µg/L
C.I. Disperse Blue 1	2475-45-8	500	500	ND	µg/L
C.I. Disperse Blue 3	2475-46-9	500	500	ND	µg/L
C.I. Basic Blue 26 (with Michler's Ketone > 0.1%)	2580-56-5	500	500	ND	µg/L
C.I. Basic Green 4 (malachite green chloride)	569-64-2	500	500	ND	µg/L
C.I. Basic Green 4 (malachite green oxalate)	2437-29-8	500	500	ND	µg/L
C.I. Basic Green 4 (malachite green)	10309-95-2	500	500	ND	µg/L
Disperse Orange 11	82-28-0	500	500	ND	µg/L
Basic violet 3 with >0.1% of Michler´s Keto	548-62-9	500	500	ND	µg/L
C.I. Acid Violet 49	1694-09-3	500	500	ND	µg/L

8. Dyes – Disperse (Allergenic)
Test method: modified from to DIN 54231:2022-09 (LC-MS).

Disperse dyes	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	Unit
Disperse Yellow 1	119-15-3	50	50	ND	µg/L
Disperse Blue 102	12222-97-8	50	50	ND	µg/L
Disperse Blue 106	12223-01-7	50	50	ND	µg/L
Disperse Yellow 39	12236-29-2	50	50	ND	µg/L
Disperse Orange 37/59/76	13301-61-6	50	50	ND	µg/L
Disperse Brown 1	23355-64-8	50	50	ND	µg/L
Disperse Orange 1	2581-69-3	50	50	ND	µg/L
Disperse Yellow 3	2832-40-8	50	50	ND	µg/L
Disperse Red 11	2872-48-2	50	50	ND	µg/L
Disperse Red 1	2872-52-8	50	50	ND	µg/L
Disperse Red 17	3179-89-3	50	50	ND	µg/L
Disperse Blue 7	3179-90-6	50	50	ND	µg/L
Disperse Blue 26	3860-63-7	50	50	ND	µg/L

Disperse Yellow 49	54824-37-2	50	50	ND	µg/L
Disperse Blue 35	12222-75-2	50	50	ND	µg/L
Disperse Blue 124	61951-51-7	50	50	ND	µg/L
Disperse Yellow 9	6373-73-5	50	50	ND	µg/L
Disperse Orange 3	730-40-5	50	50	ND	µg/L
Disperse Blue 35	56524-77-7	50	50	ND	µg/L

9. Flame retardants

Test method: modified from to EPA 8270E (GC-MS) and EPA 8321B (LC-MS).
Test mehod for Borate salt: modified from to EPA 200.8, EPA 3005A and EPA 3015A (ICP-MS), determined as total boron.

Flame retardants	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	Unit
Tris(2-chloroethyl) phosphate (TCEP)	115-96-8	25	25	ND	µg/L
Decabromodiphenyl ether (DecaBDE)	1163-19-5	25	25	ND	µg/L
Tris(2,3-dibromopropyl) phosphate (TRIS)	126-72-7	25	25	ND	µg/L
Pentabromodiphenyl ether (PentaBDE)	32534-81-9	25	25	ND	µg/L
Octabromodiphenyl ether (OctaBDE)	32536-52-0	25	25	ND	µg/L
Bis(2,3-dibromopropyl) phosphate	5412-25-9	25	25	ND	µg/L
Tris(1-aziridinyl)phosphine oxide) (TEPA)	545-55-1	25	25	ND	µg/L
Polybromobiphenyls (PBBs)	59536-65-1	25	25	ND	µg/L
Tetrabromobisphenol A (TBBPA)	79-94-7	25	25	ND	µg/L
Hexabromocyclododecane (HBCDD)	3194-55-6	25	25	ND	µg/L
2,2-Bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0	25	25	ND	µg/L
Tris(1,3-dichloro-isopropyl) phosphate (TDCP)	13674-87-8	25	25	ND	µg/L
Tris-(2-chloro-1-methylethyl) phosphate (TCPP)	13674-84-5	25	25	ND	µg/L
Decabromobiphenyl (DecaBB)	13654-09-6	25	25	ND	µg/L
Dibromobiphenyls (DiBB)	Various	25	25	ND	µg/L
Octabromobiphenyls (OctaBB)	Various	25	25	ND	µg/L
Dibromopropylether	21850-44-2	25	25	ND	µg/L
Heptabromodiphenyl ether (HeptaBDE)	68928-80-3	25	25	ND	µg/L
Hexabromodiphenyl ether (HexaBDE)	36483-60-0	25	25	ND	µg/L
Monobromobiphenyls (MonoBB)	Various	25	25	ND	µg/L
Monobromodiphenylethers (MonoBDEs)	Various	25	25	ND	µg/L
Nonabromobiphenyls (NonaBB)	Various	25	25	ND	µg/L
Nonabromodiphenyl ether (NonaBDE)	63936-56-1	25	25	ND	µg/L
Tetrabromodiphenyl ether (TetraBDE)	40088-47-9	25	25	ND	µg/L
Tribromodiphenylethers (TriBDEs)	Various	25	25	ND	µg/L
Boric acid**	10043-35-3 / 11113-50-1	100 in Boron	100 in Boron	ND	µg/L

Diboron trioxide**	1303-86-2	100 in Boron	100 in Boron	ND	µg/L
Disodium octaborate**	12008-41-2	100 in Boron	100 in Boron	ND	µg/L
Disodium tetraborate anhydrous**	1303-96-4 / 1330-43-4	100 in Boron	100 in Boron	ND	µg/L
Tetraboron disodium heptaoxide, hydrate**	12267-73-1	100 in Boron	100 in Boron	ND	µg/L

** Report total boron directly, no conversion from Boron salt.

10. Glycols
Test method: modified from to EPA 8270E (GC-MS).

Glycols	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	Unit
Bis(2-methoxyethyl)-ether	111-96-6	50	50	ND	µg/L
2-ethoxyethanol	110-80-5	50	50	ND	µg/L
2-ethoxyethyl acetate	111-15-9	50	50	ND	µg/L
Ethylene glycol dimethyl ether	110-71-4	50	50	ND	µg/L
2-methoxyethanol	109-86-4	50	50	ND	µg/L
2-methoxyethylacetate	110-49-6	50	50	ND	µg/L
2-methoxypropylacetate	70657-70-4	50	50	ND	µg/L
Triethylene glycol dimethyl ether	112-49-2	50	50	ND	µg/L

11.Halogenated solvents
Test method: modified from to EPA 8260D (GC-MS).

Chlorinated solvents	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	Unit
1,2-Dichloroethane	107-06-2	1	1	ND	µg/L
Methylene chloride	75-09-2	1	1	ND	µg/L
Trichloroethene	79-01-6	1	1	ND	µg/L
Tetrachloroethene	127-18-4	1	1	2.5	µg/L

12. Organotin compounds
Test method: modified from to ISO 17353 (GC-MS).

Organotin compounds	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	Unit
Mono-, di-and tri-methyltin derivatives	Various	0.01	0.01	ND	µg/L
Mono-, di-and tri-butyltin derivatives	Various	0.01	0.01	ND	µg/L
Mono-, di-and tri-phenyltin derivatives	Various	0.01	0.01	ND	µg/L
Mono-, di-and tri-octyltin derivatives	Various	0.01	0.01	ND	µg/L
Triclyclohexyltin (TCyHT)	Various	0.01	0.01	ND	µg/L
Dipropyltin compounds (DPT)	Various	0.01	0.01	ND	µg/L
Tetrabutyltin compounds (TeBT)	Various	0.01	0.01	ND	µg/L
Tripropyltin Compounds (TPT)	Various	0.01	0.01	ND	µg/L

Tetraoctyltin compounds (TeOT)	Various	0.01	0.01	ND	µg/L
Tetraethyltin Compounds (TeET)	Various	0.01	0.01	ND	µg/L

13. Phthalates
Test method: modified from to EPA 8270E (GC-MS).

Phthalates	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	Unit
Di-2-ethylhexyl phthalate (DEHP)	117-81-7	10	10	ND	µg/L
Dimethoxyethyl phthalate (DMEP)	117-82-8	10	10	ND	µg/L
Di-n-octyl phthalate (DNOP)	117-84-0	10	10	ND	µg/L
Di-iso-decyl phthalate (DIDP)	26761-40-0/68515-49-1	10	10	ND	µg/L
Di-iso-nonyl phthalate (DINP)	28553-12-0/68515-48-0	10	10	ND	µg/L
Di-n-hexyl phthalate (DnHP)	84-75-3	10	10	ND	µg/L
Dibutyl phthalate (DBP)	84-74-2	10	10	ND	µg/L
Butyl benzyl phthalate (BBP)	85-68-7	10	10	ND	µg/L
Diethyl phthalate (DEP)	84-66-2	10	10	ND	µg/L
Di-n-propyl phthalate (DPRP)	131-16-8	10	10	ND	µg/L
Di-iso-butyl phthalate (DIBP)	84-69-5	10	10	ND	µg/L
Di-cyclohexyl phthalate (DCHP)	84-61-7	10	10	ND	µg/L
Di-iso-octyl phthalate (DIOP)	27554-26-3	10	10	ND	µg/L
1,2-benzenedicarboxylic acid, di-C7-11-branched and linearakyl esters (DHNUP)	68515-42-4	10	10	ND	µg/L
1,2-benzenedicarboxylic acid, di-C6-11-branched alkyl esters, C7-rich (DIHP)	71888-89-6	10	10	ND	µg/L
Di-n-pentylphthalates	131-18-0	10	10	ND	µg/L
Diisopentylphthalates	605-50-5	10	10	ND	µg/L
Dinonyl phthalate (DNP)	84-76-4	10	10	ND	µg/L

14. Perfluorinated chemicals (PFCs)
Test method: modified from to EPA 537:2020 (LC-MS/MS) and EPA 8270 (GC-MS).

Perfluorinated chemicals (PFCs)	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Perfluoro-octanoic acid (PFOA)	335-67-1	0.01	0.01	ND	µg/L
Perfluoro-octane-sulfonic acid (L-PFOS)	1763-23-1	0.01	0.01	ND	µg/L
Perfluoro-octane-sulfon-amide (PFOSA)	754-91-6	0.01	0.01	ND	µg/L
N-Methyl-perfluoro-octane-sulfon-amide (N-Me-FOSA)	31506-32-8	0.01	0.01	ND	µg/L
N-Ethyl-perfluoro-octane-sulfon-amide (N-Et-FOSA)	4151-50-2	0.01	0.01	ND	µg/L
N-Methyl-perfluoro-octane-sulfon-amido-ethanol (N-Me-FOSE alcohol)	24448-09-7	0.01	0.01	ND	µg/L
N-Ethyl-Perfluoro-octane-sulfon-amido-ethanol (N-Et-FOSE alcohol)	1691-99-2	0.01	0.01	ND	µg/L
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	39108-34-4	1	1	ND	µg/L
2-Perfluorooctylethanol (8:2 FTOH)	678-39-7	1	1	ND	µg/L
1H,1H,2H,2H-Perfluorodecyl acrylate (8:2 FTA)	27905-45-9	1	1	ND	µg/L
1H,1H,2H,2H-Perfluorodecyl methacrylate (8:2 FTMA)	1996-88-9	1	1	ND	µg/L
Methyl perfluorooctanoate (Me-PFOA)	376-27-2	1	1	ND	µg/L
Ethyl perfluorooctanoate Et-PFOA	3108-24-5	1	1	ND	µg/L

15. Polycyclic aromatic hydrocarbons (PAHs)
Test method: modified from to EPA 8270E (GC-MS).

Polycyclic aromatic hydrocarbons (PAHs)	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Benzo(a)pyrene (BaP)	50-32-8	1	1	ND	µg/L
Anthracene	120-12-7	1	1	ND	µg/L
Pyrene	129-00-0	1	1	ND	µg/L
Benzo(ghi)perylene	191-24-2	1	1	ND	µg/L
Benzo(e)pyrene	192-97-2	1	1	ND	µg/L
Indeno (1,2,3-cd)pyrene	193-39-5	1	1	ND	µg/L
Benzo(j)fluoranthene	205-82-3	1	1	ND	µg/L
Benzo(b)fluoranthene	205-99-2	1	1	ND	µg/L
Fluoranthene	206-44-0	1	1	ND	µg/L
Benzo(k)fluoranthene	207-08-09	1	1	ND	µg/L
Acenaphthylene	208-96-8	1	1	ND	µg/L
Chrysene	218-01-9	1	1	ND	µg/L
Dibenz(a,h)anthracene	53-70-3	1	1	ND	µg/L
Benzo(a)anthracene	56-55-3	1	1	ND	µg/L
Acenaphthene	83-32-9	1	1	ND	µg/L
Phenanthrene	85-01-8	1	1	ND	µg/L

Fluorene	86-73-7	1	1	ND	µg/L
Naphthalene	91-20-3	1	1	ND	µg/L

16. Volatile organic compounds (VOCs)

Test method: modified from to EPA 8260D (GC-MS) and EPA 8270 (GC-MS).

Volatile organic compounds (VOCs)	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	Unit
Benzene	71-43-2	1	1	ND	µg/L
Xylene	1330-20-7	1	1	ND	µg/L
o-cresol	95-48-7	1	1	ND	µg/L
p-cresol	106-44-5	1	1	ND	µg/L
m-cresol	108-39-4	1	1	ND	µg/L
Toluene*	108-88-3	1	1	ND	µg/L

(*) = Sample and report for mock leather.

17. Anti - Microbials & Biocides

Test method: modified from to EPA 8270E (GC-MS analysis).

Anti - Microbials & Biocides	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	Unit
o-Phenylphenol (+salts)	90-43-7	100	100	ND	µg/L
Triclosan	3380-34-5	100	100	ND	µg/L
Permethrin	Multiple	500	500	ND	µg/L

18. Chlorinated paraffins
Test method: modified from to ISO 12010:2020 (GC-MS).

Chlorinated paraffins	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment))	Unit
Short-chain Chlorinated paraffin (C10 – C13)	85535-84-8	25	25	ND	µg/L
Medium-chain Chlorinated paraffins (MCCPs) (C14-C17)	85535-85-9	500	500	ND	µg/L

19. Dimethyl Formamide (DMFa) (*)
Test method: modified from to EPA 8270E (GC-MS).

N,N-di-methylformamide (DMFa)	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	Unit
Dimethyl formamide; N,N-dimethylformamide	68-12-2	1000	1000	ND	µg/L

(*) = Sample and report for mock leather.

20. Dyes-Navy Blue Colourant
Test method: modified from to DIN 54231:2022-09 (LC-MS).

Dyes-Navy Blue Colourant	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	Unit
Component 1: C39H23Cl-CrN7O12S 2Na	118685-33-9	500	500	ND	µg/L
Component 2: C46H-30CrN10O20S2 3Na	Not Allocated	500	500	ND	µg/L

21. Other/Miscellaneous Chemicals (^)

Others: With reference to Liquid extraction, LC-MS-MS analysis.
Test method for Borate, Zinc salt: modified from to EPA 200.8, EPA 3005A and EPA 3015A (ICP-MS), determined as total boron and total zinc.

Other/Miscellaneous Chemicals	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	Unit
AEEA [2-(2-aminoethylamino)ethanol]	111-41-1	500	500	ND	µg/L
Bisphenol A	80-05-7	10	10	ND	µg/L
Thiourea	62-56-6	50	50	ND	µg/L
Quinoline	91-22-5	50	50	ND	µg/L
Borate, zinc salt (^^)	12767-90-7	100 in Boron & 100 in Zinc	100 in Boron & 100 in Zinc	Boron: ND Zinc: 109	µg/L

^^ = Report total boron & total zinc individually, and no conversion from boron / zinc salt.

22. UV Absorbers

Test method: modified from to EPA 8270 (GC-MS).

UV Absorbers	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	Unit
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec- butyl) phenol(UV-350)	36437-37-3	100	100	ND	µg/L
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	100	100	ND	µg/L
2-benzotriazol-2-yl-4,6-di-tertbutylphenol (	3846-71-7	100	100	ND	µg/L
2,4-Di-tert-butyl-6-(5-chlorobenzotriazole-2-yl) phenol (UV-327)	3864-99-1	100	100	ND	µg/L

23. Sludge Parameters – Step 1 - Metals

Test method: modified from to EPA 200.8 (ICP-MS).
Test method for Chromium VI: modified from to EPA 7196 (UV/VIS).
Test method for Mercury: modified from to EPA 3051A (ICP-MS).

Sludge Parameters – Step 1 - Metals	ZDHC reporting limit (Dry weight) (mg/kg)	Lab reporting limit (Dry weight) (mg/kg) (mg/kg)	Result Sample 3 (Sludge - Dry weight)	Unit
Antimony	5	0.25	0.57	mg/kg
Arsenic	5	0.25	3.14	mg/kg
Barium	200	0.25	85.1	mg/kg
Cadmium	1	0.1	0.26	mg/kg
Cobalt	400	0.25	6.74	mg/kg
Copper	50	0.25	101	mg/kg
Lead	5	0.25	11.7	mg/kg
Nickel	20	0.25	16.6	mg/kg
Selenium	5	0.5	ND	mg/kg
Silver	50	2.5	ND	mg/kg
Total Chromium	50	0.25	1117	mg/kg
Zinc	400	2.5	892	mg/kg
Chromium (VI)	20	5	ND	mg/kg
Mercury	1	0.1	ND	mg/kg

24. Sludge Parameters – Step 1 - Anions

With reference to USEPA 9013, USEPA 9014, USEPA 9213, HJ745 with Colourimetry or ISE analysis.

Sludge Parameters – Step 1 - Anions	ZDHC reporting limit (Dry weight) (mg/kg)	Lab reporting limit (Dry weight) (mg/kg)	Result Sample 3 (Sludge - Dry weight))	Unit
Cyanide	20	20	ND	mg/kg

25. Sludge Parameteres - Step 1 – Conventional

Sludge Parameters – Step 1 - Conventiona	Test method	Lab reporting limit (Dry weight) (mg/kg)	Result Sample 3 (Sludge - Dry weight))	Unit
pH	USEPA SW 9045D	N/A	8.84 [f]	N/A
% Solids	USEPA 160.3	N/A	16	%
Paint Filter Test	USEPA 9095B	N/A	Fail	N/A
Fecal Coliform	USEPA 1681	10 MPN/g	ND	MPN/g

^ - Report “Pass” when Paint Filter Test does not contain free liquid; Report “Fail” when Paint Filter Test does contain free liquid.

26. Sludge Parameteres - Step 1 - MRSL - Alkylphenol (AP)and Alkylphenol Ethoxylates (APEOs): including all isomers.

Test method: modified from to ISO 18254 (LC-MS/MS).

Sludge Parameters - Step 1 - MRSL - Alkylphenol (AP) and Alkylphenol	CAS no.	ZDHC reporting limit (Dry	Lab reporting limit (Dry weight)	Result Sample 3 (Sludge - Dry	Unit
Nonylphenol ethoxylates (NPEO)	9016-45-9; 26027-38-3; 37205-87-1; 68412-54-4; 127087-87-0	0.4	0.4	ND	mg/kg
Nonylphenol (NP), mixed isomers	104-40-5; 11066-49-2; 25154-52-3; 84852-15-3	0.4	0.4	ND	mg/kg
Octylphenol ethoxylates (OPEO)	9002-93-1; 9036-19-5; 68987-90-6	0.4	0.4	ND	mg/kg
Octylphenol (OP), mixed isomers	140-66-9; 1806-26-4; 27193-28-8	0.4	0.4	ND	mg/kg

27. Sludge Parameteres - Step 1 - MRSL - PolycyclicAromatic Hydrocarbons (PAHs)

Test method: modified from to EPA 3550 and EPA 8270E (GC-MS).

Sludge Parameteres - Step 1 - MRSL - Polycyclic Aromatic Hydrocarbons (PAHs)	CAS no.	Lab reporting limit (Dry weight) (mg/kg)	ZDHC reporting limit (Dry	Result Sample 3 (Sludge - Dry	Unit
Acenaphthene	83-32-9	0.2	0.2	ND	mg/kg
Acenaphthylene	208-96-8	0.2	0.2	ND	mg/kg
Anthracene	120-12-7	0.2	0.2	ND	mg/kg
Benzo[a]anthracene	56-55-3	0.2	0.2	ND	mg/kg
Benzo[a]pyrene (BaP)	50-32-8	0.2	0.2	ND	mg/kg
Benzo[b]fluoranthene	205-99-2	0.2	0.2	ND	mg/kg
Benzo[e]pyrene	192-97-2	0.2	0.2	ND	mg/kg
Benzo[ghi]perylene	191-24-2	0.2	0.2	ND	mg/kg
Benzo[j]fluoranthene	205-82-3	0.2	0.2	ND	mg/kg
Benzo[k]fluoranthene	207-08-9	0.2	0.2	ND	mg/kg
Chrysene	218-01-9	0.2	0.2	ND	mg/kg
Dibenz[a,h]anthracene	53-70-3	0.2	0.2	ND	mg/kg
Fluoranthene	206-44-0	0.2	0.2	ND	mg/kg
Fluorene	86-73-7	0.2	0.2	ND	mg/kg
Indeno[1,2,3-cd]pyrene	193-39-5	0.2	0.2	ND	mg/kg
Naphthalene	91-20-3	0.2	0.2	ND	mg/kg
Phenanthrene	85-01-8	0.2	0.2	ND	mg/kg
Pyrene	129-00-0	0.2	0.2	ND	mg/kg

28. Sludge Parameteres - Step 1 - MRSL – Chlorotoluenes

Test method: modified from to EPA 8270 (GC-MS).

Sludge Parameteres - Step 1 - MRSL – Chlorotoluenes	CAS no.	ZDHC reporting limit (Dry weight) (mg/kg)	Lab reporting limit (Dry weight) (mg/kg)	Result Sample 3 (Sludge - Dry weight))	Unit
2-Chlorotoluene	95-49-8	0.2	0.2	ND	mg/kg
3-Chlorotoluene	108-41-8	0.2	0.2	ND	mg/kg
4-Chlorotoluene	106-43-4	0.2	0.2	ND	mg/kg
2,3-Dichlorotoluene	32768-54-0	0.2	0.2	ND	mg/kg
2,4-Dichlorotoluene	95-73-8	0.2	0.2	ND	mg/kg
2,5-Dichlorotoluene	19398-61-9	0.2	0.2	ND	mg/kg
2,6-Dichlorotoluene	118-69-4	0.2	0.2	ND	mg/kg
3,4-Dichlorotoluene	95-75-0	0.2	0.2	ND	mg/kg
3,5-Dichlorotoluene	25186-47-4	0.2	0.2	ND	mg/kg
2,3,4-Trichlorotoluene	7359-72-0	0.2	0.2	ND	mg/kg
2,3,6-Trichlorotoluene	2077-46-5	0.2	0.2	ND	mg/kg
2,4,5-Trichlorotoluene	6639-30-1	0.2	0.2	ND	mg/kg
2,4,6-Trichlorotoluene	23749-65-7	0.2	0.2	ND	mg/kg
3,4,5-Trichlorotoluene	21472-86-6	0.2	0.2	ND	mg/kg
2,3,4,5-Tetrachlorotoluene	76057-12-0	0.2	0.2	ND	mg/kg
2,3,5,6-Tetrachlorotoluene	29733-70-8	0.2	0.2	ND	mg/kg
2,3,4,6-Tetrachlorotoluene	875-40-1	0.2	0.2	ND	mg/kg
Pentachlorotoluene	877-11-2	0.2	0.2	ND	mg/kg

29. Sludge Parameteres - Step 2 – Metals

With reference to toxicity leachate extraction procedure EPA 1311 followed by Acid digestion with USEPA 200.8 (ICP-MS)
Test method for Chromium VI: With reference to toxicity leachate extraction procedure EPA 1311 followed by ISO 18412, EPA 7196 (UV/VIS).
Test method for Mercury: With reference to toxicity leachate extraction procedure EPA 1311 followed by acid digestion EPA 3051A (ICP -MS).

Sludge Parameteres - Step 2 – Metals	Lab Reporting limit (mg/L)	Result Sample 3 (Sludge)	Unit
Antimony	0.0005	NA	mg/L
Arsenic	0.0005	NA	mg/L
Barium	0.001	NA	mg/L
Cadmium	0.0002	NA	mg/L
Cobalt	0.001	NA	mg/L
Copper	0.001	NA	mg/L
Lead	0.0005	0.0189	mg/L
Nickel	0.001	NA	mg/L

Selenium	0.002	NA	mg/L
Silver	0.005	NA	mg/L
Total Chromium	0.001	0.772	mg/L
Zinc	0.01	NA	mg/L
Chromium (VI)	0.05	NA	mg/L
Mercury	0.0003	NA	mg/L

Appendix 1: Reference to ZDHC WWSG v2.1 Table 4B

Parameters		Disposal pathways						
	Total metals and anions threshold values (mg/kg)	A and B (Leachate result in mg/L)	C	D	E	F	G	G
			(Leachate result in mg/L)	(Leachate result in mg/L)	(Leachate result in mg/L)	(Leachate result in mg/L)	(Leachate result in	(Total metals
Arsenic	10	Report only if required to test	5	2.75	0.5	0.5	0.5	75
Cadmium	3		1	0.58	0.15	0.15	0.15	85
Total Chromium	100		15	10	5	5	5	3000
Lead	10		5	2.75	0.5	0.5	0.5	840
Antimony	12		15	7.8	0.6	0.6	0.6	Sample and report only
Barium	700		100	67.5	35	35	35	
Cobalt	1600		80	80	80	80	80	
Copper	200		25	17.5	10	10	10	4300
Nickel	70		20	11.75	3.5	3.5	3.5	420
Selenium	10		1	0.75	0.5	0.5	0.5	100
Silver	100		5	5	5	5	5	Sample and report only
Zinc	1000		250	150	50	50	50	7500
Chromium VI	50		5	3.75	2.5	2.5	2.5	50
Mercury	2		0.2	0.125	0.05	0.05	0.05	57

Appendix 2: reference to ZDHC WWSG v2.1 Table 4C

Parameters	Disposal pathways					
	A and B	C	D	E	F	G
pH	Sample and report only	5 – 11 s.u.	5 – 11 s.u.	5 – 11 s.u.	6.5 – 9 s.u.	6.5 – 9 s.u.
% Solids		Sample and report only	Sample and report only	Sample and report only	Sample and report only	Sample and report only
Fecal Coliform					< 1000 (MPN/g)	
Paint Filter Test			Pass Paint filter test			Sample and report only
Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers			< 0.4 mg/kg			
Polycyclic Aromatic Hydrocarbons (PAHs)			< 0.2 mg/kg			
Chlorotoluenes						

Appendix 2: reference to ZDHC WWSG v2.1 Table 4D

Parameters	Disposal pathways					
	A and B	C	D	E	F	G
Cyanide	Report only if required to test	100 mg/kg	85 mg/kg	70 mg/kg	70 mg/kg	70 mg/kg

Photo of sampling points:

Photo of wastewater before treatment (untreated)
[06/03/2024, 07:30]

Photo of effluent
[06/03/2024, 07:30]

Photo of sludge
[06/03/2024, 07:30]

Photo of samples:

[06/03/2024, 07:30]

Photo of effluent
[06/03/2024, 07:30]

Photo of sludge
[06/03/2024, 07:30]

SAMPLING PROTOCOL (PAGE 1 OF 3)

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ZDHC Monitoring

Sampling Protocol for Wastewater and Sludge acc. ZDHC SAP 2.1 incl. Apdx. E

Facility Name	FILECA INDUSTRY SA
Address and Contact:	VALEA VIILOR, NO.1/77,BECLEAN, BISTRITA NASAUD

Facility type : (tick all applicable)
☑ Dyeing and Finishing | ☐ Fabric Mill | ☐ Laundry, Washing and Finishing | ☐ Natural Leather processing | ☐ Printing | ☐ Synthetic Leather processing

Date of sampling: 06.03.2024

Sample General ID (if applicable):
☐ direct discharge
☑ indirect discharge
☐ Zero Liquid Discharge (ZLD)
☐ MMCF
☑ with pre-treatment
☐ without treatment
☐ with own ETP
discharge to: MUNICIPALITY ETP

Discharge description: INDIRECT DISCHARGE

Weather conditions: on sampling day: CLOUDY | on day before: CLEAR

Fill in all above information as applicable.

Sample Type and Details (see also page 2)

☑ Effluent Discharge
○ direct: Enter sampling times in Sample Details (page 2), and measure field parameters.
or ◉ indirect: Enter sampling time(s) for Indirect discharge. Field parameters are not required, except on client's request.
○ Facility has WWTP
○ Plant is in operating condition
◇ with Homogenisation / Equalisation Tank (HT) present:
Hydraulic Retention Time (HRT): ____ h
(= Volume of tank [m³] / Flow rate [m³/h])
If HRT > 12h, grab sampling for both untreated and treated wastewater from a point after the HT can be applied.

☐ Pre-treated WW without sludge | ☑ Untreated WW | ☐ Incoming Water | ☐ MMCF

☑ Sludge with below disposal pathway*): age of sludge : ____ days / weeks

○ A	○ B	○ C	◉ D	○ E	○ F	○ G
>1000 °C offsite incineration	Landfill with significant control	Building products processed >1000 °C	Landfill with limited control	Incineration / Building products processed <1000 °C	Landfill with no control	Land application

*) if supplier cannot provide information, pathway "F" shall be assumed.

Sludge volume generated: 0,1 ○ m³/h ○ L/sec ○ other unit (specify): ____ ○ per facility info ○ measured ◉ estimated

☑ Process Chemical ○ liquid ◉ solid (powder / granulate / pieces) ◇ 'in process' ◇ from warehouse/storage

Times of sampling (if applicable)	1	2	3	4	5	6	7	
Untreated:	7,30	8,30	9,30	10,00	10,30	11,30	12,30	or Grab:
Effluent (indirect):*)								or Grab:
Incoming:								or Grab:
Sludge (liquid):								Solid sludge:

(for direct discharge, see below)

Picture ID (or Date & Time / Interval):
164830
06.03.2024
07:30 - 12:30

GPS coordinates of sampling points:

Incoming W.:	Lat.: ON OS ____	Long.: OE OW ____
Untreated WW:	Lat.: ON ◉S 47,17272	Long.: OE ◉W 24.14804
Effluent:	Lat.: ON OS ____	Long.: OE OW ____
Sludge:	Lat.: ON OS ____	Long.: OE OW ____

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SAMPLING PROTOCOL (PAGE 2 OF 3)

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Sample Details

*) Field parameters usually are required only for direct discharge. If client requests also for indirect discharge, use below fields.

☑ Composite Sample | ☐ Grab Sample (enter data in column for Averaged Readings and in field at right) | Volume of aliquot(s): ..... mL

	1	2	3	4	5	6	7	Averaged Readings or Grab Sample:
Time of discrete effluent sample **	7,30	8,30	9,30	10,00	10,30	11,30	12,30	
pH:								
Temp. of WW discharge	18.2 °C	22 °C	19.5 °C	26.7 °C	22.4 °C	27.3 °C	27.5 °C	°C
Temp. of receiving water	14 °C	17.8 °C	23.1 °C	49.1 °C	39.7 °C	49.7 °C	46.2 °C	°C
Flow rate:	L/s	L/s	L/s	L/s	L/s	L/s	L/s	m³/d avg.
Dissolved Oxygen:	6.3 mg/L	5.1 mg/L	6.9 mg/L	1.1 mg/L	6.6 mg/L	1.4 mg/L	6.7 mg/L	mg/L
Total Chlorine:	0.12 mg/L	0.29 mg/L	0.36 mg/L	0.37 mg/L	0.09 mg/L	0.62 mg/L	0.48 mg/L	mg/L
Persistent foam:	● yes ○ no	● yes ○ no	● yes ○ no	● yes ○ no	● yes ○ no	● yes ○ no	● yes ○ no	

**) time when discrete sample for composite was taken. Use comment field if number of samples is greater than seven, or if above fields are otherwise not sufficient.
Note: 1.0 m³/h = 0.27 L/s ; 1.0 L/s = 86.4 m³/d; 1 m³/h = 0.042 m³/d; *multiply the flow rate in m³/h by the daily operation time of the ETP to get flow rate in m³/d;*

Sampling procedure: ○ automated sampling ● with beaker/bowl ○ other: .....

Wastewater Flow Data (Effluent/Discharge)

System:	☑ Flow meter (in facility)	☐ Pipe (O)	☐ Flume (U)	☐ Wier (V)
Diameter [cm]				
Water Depth [cm]				
Flow Speed [cm/sec]				

General Field Parameters and Sensory Data (enter as far as applicable)

Type	T ambient air [°C]	Odour	Colour	Foaming	Floating matter
Incoming				○ yes ○ no	○ yes ○ no
Untreated	9		DARK BLUE	● yes ○ no	● yes ○ no
Effluent				○ yes ○ no	○ yes ○ no
Sludge	9		DARK BLUE		

Field Testing QA/QC

Parameter	Lab Control Sample target value	Lab Control Sample measured value	Accuracy [%]
pH			
Total Chlorine			

Other observations:

Additional notes (e.g., alternatively measured flow and readings, abbreviations used, etc):

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SAMPLING PROTOCOL (PAGE 3 OF 3)

ZDHC Monitoring

ZDHC Wastewater Sampling - Facility Confirmation

The Wastewater samples have been collected under the facility's normal production scale and wastewater flow rate. The sampler listed below was on-site and collected the samples.

Sampling person (name & email address):
CATALIN BOTEZATU
catalin.botezatu@intertek.com

Facility Name:
FILECA INDUSTRY SA

Sampler's ZDHC accreditation no.:
C74D106818042

Facility's Representative name:
GIACOMO LIVI

Sampler's Signature:

Facility's Representative Signature and Stamp:

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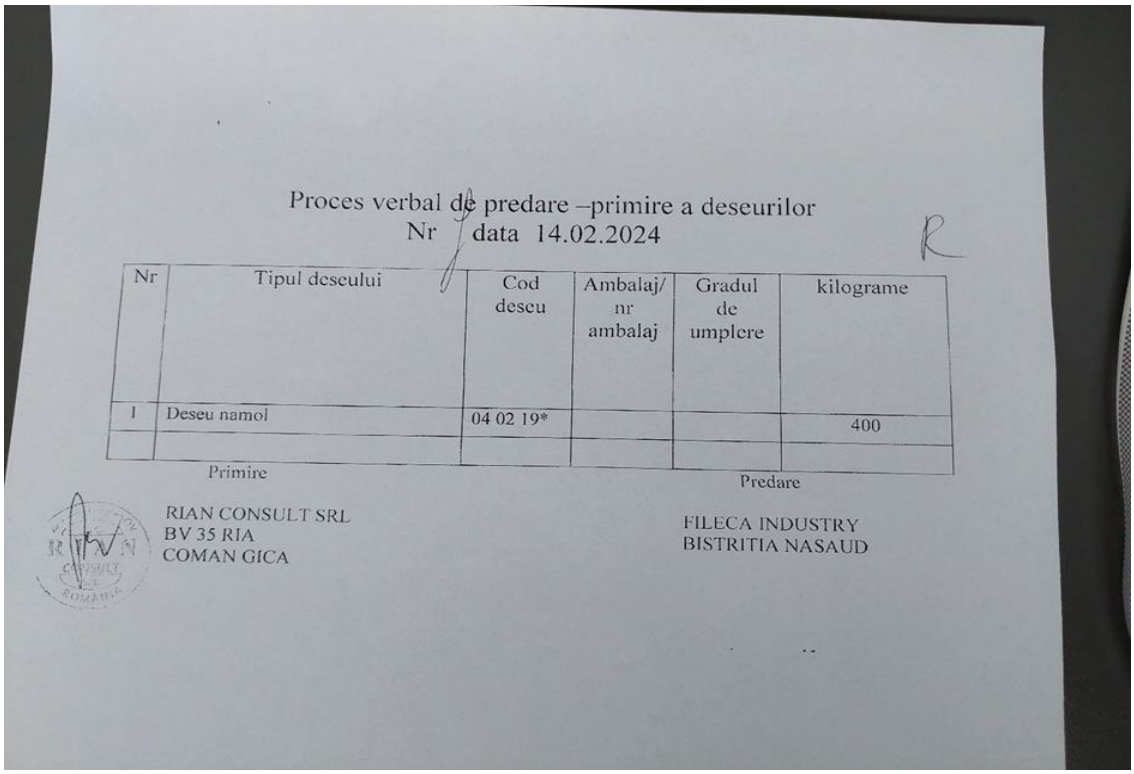
Document on sludge disposal or licensed third-party waste contractor for sludge disposal.



Proces verbal de predare –primire a deseurilor
Nr / data 14.02.2024

Nr	Tipul deseului	Cod deseu	Ambalaj/ nr ambalaj	Gradul de umplere	kilograme
1	Deseu namol	04 02 19*			400

Primire

RIAN CONSULT SRL
BV 35 RIA
COMAN GICA

Predare

FILECA INDUSTRY
BISTRITIA NASAUD

Testing period: From 06/03/2024 to 14/03/2024
Testing period Subcontracted Lab (if applicable): NA
****
End of report

(Intertek Ibérica Spain S.L.U.-Punta Sollana Nº6-Puerto Bilbao - 48508 Zierbena
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