Name of Laboratory	: SGS (Thailand) Limited, Laboratory Services
Address	: 10, 10/1-4 and 12 Soi Rama III S.59,
	Chong Nonsi, Yan Nawa, Bangkok 10120
Accreditation Number	: Testing - 0017
Contact Person	: Mr. Pradit Yongpanchai
	Phone : 0-2683-0541
	Fax : 0-2294-7484
	E-mail : pradit.yongpanchai.com
Initial Issue Date	: 22 nd June 2007
Issue Date	: 14 th September 2023
Expired date	: 6 th November 2026
Standard	: ISO/IEC 17025:2017
Reference No.	: 0303/15078

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Laborato	ory Status	: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	- Cadmium	In - house method : LBEN–05119
		0.002 mg/L to 0.1 mg/L	based on Standard Methods for the
		- Copper	Examination of Water and Wastewater,
		0.01 mg/L to 1.0 mg/L	APHA, AWWA & WEF, 23 rd ed., 2017,
		- Lead	part 3120 B, 3030 F
		0.01 mg/L to 1.0 mg/L	
		- Manganese	
		0.1 mg/L to 4.0 mg/L	
		- Nickel	
		0.01 mg/L to 1.0 mg/L	
		- Zinc	
		0.01 mg/L to 1.0 mg/L	
		- Arsenic	In - house method : LBEN-05119
		0.002 mg/L to 0.008 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 3114 C

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Laborato	ory Status	: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	- Antimony	In - house method : LBEN–14004
(cont.)		0.63 µg/L to 12.5 µg/L	based on United States Environmental
		- Arsenic	Protection Agency, 2014, EPA,
		0.63 µg/L to 6.25 µg/L	Method 6020 B, Revision 2
		- Cadmium	
		0.63 µg/L to 6.25 µg/L	
		- Chromium	
		0.63 µg/L to 12.5 µg/L	
		- Cobalt	
		1.25 μg/L to 62.5 μg/L	
		- Copper	
		0.63 µg/L to 6.25 µg/L	
		- Lead	
		0.63 µg/L to 6.25 µg/L	
		- Manganese	
		0.63 µg/L to 6.25 µg/L	

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Laborato	ory Status	: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	- Nickel	In - house method : LBEN–14004
(cont.)		0.63 µg/L to 6.25 µg/L	based on United States Environmental
		- Silver	Protection Agency, 2014, EPA,
		2.50 μg/L to 62.50 μg/L	Method 6020 B, Revision 2
		- Zinc	
		2.50 μg/L to 62.50 μg/L	
		- Barium	
		1.25 μg/L to 62.50 μg/L	
		- Boron	
		1.25 μg/L to 62.50 μg/L	
		- Selenium	
		0.63 μg/L to 12.50 μg/L	
		- Tin	
		0.13 μg/L to 6.25 μg/L	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	- Mercury	In - house method : LBEN-08145
(cont.)		0.5 μg/L to 8.0 μg/L	based on United States Environmental
			Protection Agency, 1994, EPA,
			Method 245.1, Revision 3.0
		- Hexavalent chromium	ISO 18412 : 2005
		1.0 μg/L to 6.25 μg/L	
		- рН	In - house method : LBEN-09152
		6.0 to 10.0	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 4500-H $^+$ B

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	- Ammonia - Nitrogen	In-house method : LBEN-19003
(cont.)		0.10 mg/L to 10.0 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 4500-NH ₃ -F
		- Total phosphorus	In - house method : LBEN-19002
		0.10 mg/L to 10.0 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 4500-P J
		- Oil and Grease	In - house method : LBEN–18005
		0.50 mg/L to 100.0 mg/L	based on United States Environmental
			Protection Agency, 2010, EPA,
			Method 1664, Revision B

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Laborato	ory Status	: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
Item	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	- Color	ISO 7887 : 2011, method B
(cont.)		0.10 m ⁻¹ to 10.00 m ⁻¹	
		- Phenol	In - house method : LBEN-15007
		0.001 mg/L to 0.10 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 5530 B, C
		- Cyanide	In - house method : LBEN-97018
		0.01 mg/L to 0.50 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 4500-CN ⁻ C, E

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	- Navy blue	In - house method : LBLC–19004
(cont.)		1.0 mg/L to 7.5 mg/L	based on United States Environmental
			Protection Agency, 2007, EPA,
			Method 8321 B
		Azo colorants	In - house method : SOP LBGC-18004
		- Aniline	based on ISO 14362-1 : 2017
		- n-Methylaniline	
		- p-Toluidine	
		- o-Toluidine	
		- m-Toluidine	
		- n-Ethylaniline	
		- 2-Chloroaniline	
		- 2,4-Xylidine	
		- 2,6-Xylidine	
		0.10 µg/L to 3.00 µg/L	

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Laboratory Status		: 🗹 Permanent 🗆 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	Azo colorants	In - house method : SOP LBGC-18004
(cont.)		- o-Anisidine	based on ISO 14362-1 : 2017
		- 4-Chloroaniline	
		- n,n-diethylanaline	
		- p-Cresidine	
		- 2,4,5-Trimethylaniline	
		- 4-Chloro-o-toluidine	
		- 2,4-Toluenediamine	
		- 2,4-Diaminoanisole	
		- 2-Naphtylamine	
		- 5-Nitro-o-toluidine	
		- 5-Nitro-o-anisidine	
		- 4-Aminobiphenyl	
		- 4-Aminoazobenzene	
		- 4,4'-Oxydianiline	
		0.10 µg/L to 3.00 µg/L	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	Azo colorants	In - house method : SOP LBGC-18004
(cont.)		- Benzidine	based on ISO 14362-1 : 2017
		- 4,4'-Thiodianiline	
		- o-Aminoazotoluene	
		- 3,3'-Dimethyl-4,4'-	
		diaminodiphenylmethane	
		- 3,3'-Dimethylbenzidine	
		- 4,4'-Thiodianiline	
		- 3,3'-Dichlorobenzidine	
		- 4,4'-Methylene-bis- (2-chloro aniline)	
		- 3,3'-Dimethoxybenzidine	
		0.10 µg/L to 3.00 µg/L	

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Item	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	Organotin Compounds	In - house method : SOP LBGC-18006
(cont.)		- Trimethyltin(TMT)	based on ISO 17353 : 2004
		- Dimethyltin(DMT)	
		- Dipropytin-dichloride(DProT)	
		- Monobutytin(MBT)	
		- Tripropyltin(TPrT)	
		- Dibutytin(DBT)	
		- Tributyltin(TBT)	
		- Monooctyltin(MOT)	
		- Tetrabutyltin(TeBT)	
		- Diphenyltin(DPhT)	
		- Dioctyltin(DOT)	
		- Triphenyltin(TPhT)	
		- Tri-cyclohexyltin(TCyT)	
		- Tri-n-octyltin(TOT)	
		0.05 μg/L to 2.0 μg/L	

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Laboratory Status		: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	Polycyclic Aromatic Hydrocarbons	In - house method : SOP LBGC-18008
(cont.)		(PAHs)	based on DIN 38407-39 : 2011
		- Naphthalene	
		- 2-Methylnaphthalene	
		- 1-Methylnaphthalene	
		- Acenaphthylene	
		- Acenaphthene	
		- Fluorene	
		- Phenanthrene	
		- Anthracene	
		- Fluoranthene	
		- Pyrene	
		- Cyclopenta (c,d) pyrene	
		- Benzo(a) Anthracene	
		- Chrysene	
		0.01 μg/L to 2.0 μg/L	

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Laboratory Status		: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
Item	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	Polycyclic Aromatic Hydrocarbons	In - house method : SOP LBGC-18008
(cont.)		(PAHs)	based on DIN 38407-39 : 2011
		- Benzo (b) Fluoranthene	
		- Benzo (j) Fluoranthene	
		- Benzo (k) Fluoranthene	
		- Benzo (e) pyrene	
		- Benzo (a) pyrene	
		- Indenol (1,2,3-cd) pyrene	
		- Dibenzo (ah) anthracene	
		- Benzo (ghi) perylene	
		0.01 µg/L to 2.0 µg/L	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	Chlorophenol	In - house method : SOP LBGC-18003
(cont.)		- 4-Chloro-3-methylphenol	based on ISO 17070 : 2015
		- 2-Chlorophenol	
		- 3-Chlorophenol	
		- 4-Chlorophenol	
		- 2,4-Dichlorophenol	
		- 2,5-Dichlorophenol	
		- 2,6-Dichlorophenol	
		- 3,5-Dichlorophenol	
		- 2,3-Dichlorophenol	
		- 3,4-Dichlorophenol	
		- Pentachlorophenol	
		- 2,3,4,6-Tetrachlorophenol	
		0.5 μg/L to 20.0 μg/L	

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Laboratory Status		: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	Chlorophenol	In - house method : SOP LBGC-18003
(cont.)		- 2,4,5-Trichlorophenol	based on ISO 17070 : 2015
		- 2,4,6-Trichlorophenol	
		- 2,3,4-Trichlorophenol	
		- 2,3,5-Trichlorophenol	
		- 3,4,5-Trichlorophenol	
		- 2,3,4,5-Tetrachlorophenol	
		- 2,3,5,6-Tetrachlorophenol	
		- 2,3,6-Trichlorophenol	
		0.5 μg/L to 20.0 μg/L	
		Phthalates	In - house method : SOP LBGC-18007
		- Dimethyl phthalate	based on ISO 18856 : 2004
		- Diethyl phthalate	
		- Di-iso-buthyl phthalate	
		- Benzyl buthyl phthalate	
		5 µg/L to 30 µg/L	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	Phthalates	In - house method : SOP LBGC-18007
(cont.)		- Di-butyl phthalate	based on ISO 18856 : 2004
		- Di-2-ethyl hexyl phthalate	
		- Di-isononyl phthalate	
		- Bis-methylglycol ester phthalate	
		- Di-isoheptyl phthalate	
- Bis cyclohexyl phthalate			
- Di-n–octyl phthalate			
		- Bis-(2-propylheptyl) phthalate	
	- Bis-nonyl phthalate		
		- Bis-propyl phthalate	
		- Bis-iso-pentyl phthalate	
		- n-pentyl-iso-pentyl phthalate	
		- Bis-n-pentyl phthalate	
		- Di-n-hexyl phthalate	
		- Bis-iso-octhyl phthalate	
		- Di-isodecyl phthalate	
		5 μg/L to 30 μg/L	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	Volatile Organic Compound	In - house method : SOP LBGC-18009
(cont.)		- Methylene Chloride	based on United States Environmental
		- Benzene	Protection Agency, 1996, EPA,
		- 1,2-Dichloroethane	Method 8260B, Revision 2.0
		- Trichloroethylene	
		- Tetrachloroethylene	
		- Total Xylene	
		5 μg/L to 20 μg/L	
		- p- Cresol	In - house method : SOP LBGC-18010
		- o- Cresol	based on United States Environmental
		- m- Cresol	Protection Agency, 1996, EPA,
		5 μg/L to 25 μg/L	Method 8260 B, Revision 2.0

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Item	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	Perfluorocarbons (PFCs) :	In - house method : LBEGC-18011
(cont.)		- 6:2 FTOH	based on GB/T 29493.2 : 2013
		- 8:2 FTOH	
		- 10:2 FTOH	
		- 6:2 FTA	
		- 8:2 FTA	
		- 10:2 FTA	
		5 μg/L to 25 μg/L	
		Flame retardants	In - house method : LBGC-18005
		- 2,2-bis(bromomethyl)-1,3-propane-diol	based on United States Environmental
		- Tris (2-chloroethyl) phosphate	Protection Agency, 2005, EPA,
		- Tris (1,3-dichloro-isopropyl) phosphate	Method 527, Revision 1.0
		- Hexabromocyclododecane	
		5.0 μg/L to 25.0 μg/L	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	Flame retardants	In - house method : LBGC-18005
(cont.)		- Polybrominated biphenyls ethers	based on United States Environmental
		- Polybrominated diphenyl ethers	Protection Agency, 2005, EPA,
		0.25 μg/L to 1.5 μg/L	Method 527, Revision 1.0
		Disperse dyes	In - house method : LBLC-18002
		- Basic violet 1	based on Journal of Chromatographic
		- Basic violet 3	Science 2015, 53 : page 1257-1264
		- Disperse Blue 1	
		- Disperse Blue 7	
		- Disperse Brown 1	
		- Disperse Orange 1	
		- Disperse Orange 3	
		- Disperse Orange 11	
		- Disperse Orange 37/76	
		- Disperse Red 1	
		10.0 µg/L to 50.0 µg/L	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	Disperse dyes	In - house method : LBLC-18002
(cont.)		- Disperse Violet 1	based on Journal of Chromatographic
		- Disperse Yellow 1	Science 2015, 53 : page 1257-1264
		- Disperse Yellow 9	
		- Disperse Yellow 39	
		- Disperse Yellow 54	
		- Solvent Yellow 1	
		- Solvent Yellow 2	
		- Solvent Yellow 3	
		- Solvent Yellow 14	
		10.0 μg/L to 50.0 μg/L	

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Item	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	Flame retardant	In - house method : LBLC-18001
(cont.)		 Tris (2,3-dibromopropyl) phosphate Bis (2,3-dibromopropyl) phosphate Bis (2,2-bromomethyl)-1,3-propanediol 1.00 µg/L to 4.00 µg/L 	based on ISO 18857-2 : 2009
		- Glycol 20 μg/L to 100 μg/L	In - house method : LBGC–18012 based on United States Environmental Protection Agency, 2014, EPA, Method 600/R-14/008

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	- Conductivity	In - house method : LBEN–02110
(cont.)		147 µS/cm to 12 880 µS/cm	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 2510 B
		- Total solids	In - house method : LBEN-09150
		dried from 103 °C to 105 °C	based on Standard Methods for the
		50 mg/L to 20 000 mg/L	Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 2540 B
		- Total suspended solids	In - house method : LBEN-97042
		dried from 103 °C to 105 °C	based on Standard Methods for the
		5 mg/L to 10 000 mg/L	Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 2540 D

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	- Total dissolved solids	In - house method : LBEN–00106
(cont.)		dried at 180 °C	based on Standard Methods for the
		50 mg/L to 20 000 mg/L	Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 2540 C
		- Total hardness	In - house method : LBEN-00098
		(Calculates as CaCO ₃)	based on Standard Methods for the
		1 mg/L to 300 mg/L	Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 2340 C
		- BOD	In - house method : LBEN–97006
		2 mg/L to 2 100 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 5210 B

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Address : 10, 10/1-4 and 12 Soi Rama III S.59,

Chong Nonsi, Yan Nawa, Bangkok 10120

Accreditation Number : Testing - 0017

Laboratory Status		: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	- COD	In - house method : LBEN–97010
(cont.)		10 mg/L to 300 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 5220 C
		- COD	In - house method : LBEN–12161
		10 mg/L to 400 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 5220 D
		- рН	In - house method : LBEN–21001
		4.0 to 9.2	based on United States Environmental
			Protection Agency, Editorial Revision 1978,
			1982, EPA, Method 150.1

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Laboratory Status		: 🗹 Permanent 🗆 Site 🔹 Temporary 🖾 Mobile	
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	- Nitrate	In - house method : LBEN–97029
(cont.)		0.02 mg/L to 6.0 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 4500-NO ₃ E
		- Nitrite	In - house method : LBEN–97049
		0.02 mg/L to 1.0 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 4500-NO ₂ B
		- Sulfate	In - house method : LBEN–14003
		2.0 mg/L to 100.0 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 4500-SO ₄ ²⁻ E

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Accreditation Number : Testing - 0017

Laboratory Status		: 🗹 Permanent 🗆 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	- Total organic carbon	In - house method : LBEN–09149
(cont.)		0.5 mg/L to 10.0 mg/L	based on United States Environmental
			Protection Agency, 2004, EPA,
			Method 9060 A, Revision 1.0
		Perfluorocarbons (PFCs) :	In – house method : LBLC-17014
		- PFPeA	based on DIN 38407-42 : 2011-03
		- PFBS	
		- PFHxS	
		- PFHpS	
		- PF-3,7-DMOA	
		- PFDA	
		- PFOS	
		- PFUnA	
		- PFDoA	
		- PFDS	
		0.05 µg/L to 0.3 µg/L	

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Laboratory Status		: 🗹 Permanent 🗆 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	Perfluorocarbons (PFCs) :	In – house method : LBLC-17014
(cont.)		- PFTrA	based on DIN 38407-42 : 2011-03
		- PFTeA	
		- PFOSA	
		0.05 µg/L to 0.3 µg/L	
		Alkyl phenol ethoxylate :	In – house method : LBLC-17013
		- OPEO	based on ISO 18857-2 : 2009
		- NPEO	
		1 μg/L to 10 μg/L	
		Chlorobenzenes and	In – house method : LBGC-21010
		Chlorotoluenes (COCs) :	based on United States Environmental
		- Chlorobenzene	Protection Agency, 2014, EPA,
		- 2-Chlorotoluene	Method 8270 E (SW-846)
		- 3-Chlorotoluene	
		- 4-Chlorotoluene	
		0.20 μg/L to 5.00 μg/L	

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Laboratory Status		: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	Chlorobenzenes and	In – house method : LBGC-21010
(cont.)		Chlorotoluenes (COCs) :	based on United States Environmental
		- 1,3-Dichlorobenzene	Protection Agency, 2014, EPA,
		- 1,4-Dichlorobenzene	Method 8270 E (SW-846)
		- 1,2-Dichlorobenzene	
		- 3,5-Dichlorotoluene	
		- 2,4-Dichlorotoluene	
		- 2,5 Dichlorotoluene	
		- 2,6-Dichlorotoluene	
		- 1,3,5-Trichlorobenzene	
		- 2,3-Dichlorotoluene	
		- 3,4-Dichlorotoluene	
		- 1,2,4-Trichlorobenzene	
		- 1,2,3-Trichlorobenzene	
		0.20 µg/L to 5.00 µg/L	

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Laboratory Status		: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	Chlorobenzenes and	In – house method : LBGC-21010
(cont.)		Chlorotoluenes (COCs) :	based on United States Environmental
		- 2,4,6-Trichlorotoluene	Protection Agency, 2014, EPA,
		- 2,4,5 -Trichlorotoluene	Method 8270
		- 2,3,6-Trichlorotoluene	
		- 1,2,3,5-Tetrachlorobenzene	
		- 3,4,5-Trichlorotoluene	
		- 1,2,4,5-Tetrachlorobenzene	
		- 2,3,4-Trichlorotoluene	
		- 1,2,3,4-Tetrachlorobenzene	
		- 2,3,4,6-Tetrachlorotoluene	
		- 2,3,5,6-Tetrachlorotoluene	
		- 2,3,4,5-Tetrachlorotoluene	
		- Pentachlorobenzene	
		- 2,3,4,5,6-Pentachlorotoluene	
		- Hexachlorobenzene	
		0.20 μg/L to 5.00 μg/L	

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Laboratory Status		: 🗹 Permanent 🗆 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
1	Water	Alkylphenol (AP) :	In – house method : LBLC-17013
(cont.)		- Nonylphenol (NP)	based on ISO 18857-2 : 2009
		- 4-n-Nonyl phenol (4-n-NP)	
		- 4-n-Octylphenol (4-n-OP)	
		- Octylphenol (4-tert-OP)	
		1.0 μg/L to 10.0 μg/L	
		- Carbon disulfide	In – house method : LBGC-20007
		0.05 mg/L to 1 mg/L	based on United States Environmental
			Protection Agency, 2017, EPA,
			Method 8260 D
		- Thiourea and quinoline	In – house method : LBLC-22021
		50 μg/L to 1 000 μg/L	based on DIN 54231 : 2005-11

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Laboratory Status		: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	- Mercury	In - house method : LBEN–08145
		0.5 µg/L to 8.0 µg/L	based on United States Environmental
			Protection Agency, 1994, EPA,
			Method 245.1, Revision 3.0
		- pH	In - house method : LBEN-09152
		4.0 to 10.0	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 4500-H $^{+}$ B
		- Total solids	In - house method : LBEN-09150
		dried from 103 °C to 105 °C	based on Standard Methods for the
		50 mg/L to 20 000 mg/L	Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 2540 B

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Laboratory Status		: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	- Total suspended solids	In - house method : LBEN–97042
(cont.)		dried from 103 °C to 105 °C	based on Standard Methods for the
		5 mg/L to 10 000 mg/L	Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 2540 D
		- Total dissolved solids	In - house method : LBEN–00106
		dried at 180 °C	based on Standard Methods for the
		50 mg/L to 20 000 mg/L	Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 2540 C
		- Conductivity	In - house method : LBEN–02110
		147 μS/cm to 12 880 μS/cm	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 2510 B

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Laboratory Status		: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	- Total hardness	In - house method : LBEN–00098
(cont.)		(Calculates as CaCO ₃)	based on Standard Methods for the
		2 mg/L to 500 mg/L	Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 2340 C
		- BOD	In - house method : LBEN–97006
		2 mg/L to 2 100 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 5210 B
		- COD	In - house method : LBEN–97010
		10 mg/L to 3 000 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 5220 C

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Laboratory Status		: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	- COD	In - house method : LBEN–12161
(cont.)		10 mg/L to 500 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 5220 D
		- рН	In - house method : LBEN–21001
		4.0 to 9.2	based on United States Environmental
			Protection Agency, Editorial Revision
			1978, 1982, EPA, Method 150.1
		- Nitrate	In - house method : LBEN-97029
		0.02 mg/L to 15.0 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 4500-NO ₃ ⁻ E

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Laboratory Status		: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	- Nitrite	In - house method : LBEN–97049
(cont.)		0.02 mg/L to 1.0 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 4500-NO ₂ B
		- Sulfate	In - house method : LBEN–14003
		2.0 mg/L to 100.0 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 4500-SO ₄ ²⁻ E
		- Total organic carbon	In - house method : LBEN-09149
		0.5 mg/L to 10.0 mg/L	based on United States Environmental
		0.5 mg/L to 10.6 mg/L	Protection Agency, 2004, EPA,
			Method 9060 A, Revision 1.0

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Laboratory Status		: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	- Ammonia-Nitrogen	In - house method : LBEN–11158
(cont.)		0.02 mg/L to 20 mg/L	based on ASTM D1426-08
		- Total phosphorus	In - house method : LBEN–97037
		0.01 mg/L to 40 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 4500-P B4, E
		- Dissolved phosphorus	In - house method : LBEN–97037
		0.005 mg/L to 20 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 4500-P B1, E

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Laboratory Status		: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
Item	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	- Glycol	In - house method : LBGC–18012
(cont.)		20 µg/L to 200 µg/L	based on United States Environmental
			Protection Agency, 2014, EPA,
			Method 600/R-14/008
		- Ammonia-Nitrogen	In - house method : LBEN-19003
		0.10 mg/L to 10.0 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 4500 - NH ₃ -F
		- Total phosphorus	In - house method : LBEN -19002
		0.10 mg/L to 10.0 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 4500-P J

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Laborato	ory Status	: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	- Chloride	In - house method : LBEN-11157
(cont.)		1.0 mg/L to 20 000 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 4500-Cl [¯] D
		- Navy blue	In - house method : LBLC–19004
		1.0 mg/L to 7.5 mg/L	based on United States Environmental
			Protection Agency, 2007, EPA,
			Method 8321B

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Laborato	ory Status	: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	Perfluorocarbons (PFCs) :	In – house method : LBLC-17014
(cont.)		- PFPeA	based on DIN 38407-42 : 2011-03
		- PFBS	
		- PFHxS	
		- PFHpS	
		- PF-3,7-DMOA	
		- PFDA	
		- PFOS	
		- PFUnA	
		- PFDoA	
		- PFDS	
		- PFTrA	
		- PFTeA	
		- PFOSA	
		0.05 μg/L to 0.3 μg/L	

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Laborato	ory Status	: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	Perfluorinated / Polyfluorinated	In – house method : LBLC-17014
(cont.)		chemicals (PFCs) :	based on DIN 38407-42 : 2011-03
		- PFBS	
		- PFPeA	
		- PFHxA	
		- PFHxS	
		- PFHpA	
		- НРҒНрА	
		- PFOS/POSF	
		- PFOSA	
		- PFHpS	
		- PFOA	
		- MeFOSA	
		- EtFOSA	
		- MeFOSE	
		- EtFOSE	
		0.01 μg/L to 0.20 μg/L	

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Accreditation Number : Testing - 0017

Laborato	ory Status	: 🗹 Permanent 🔲 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	Perfluorinated / Polyfluorinated	In – house method : LBLC-17014
(cont.)		chemicals (PFCs) :	based on DIN 38407-42 : 2011-03
		- PFNA	
		- PFDA	
		- PFDS	
		- PFUnA	
		- PFDoA	
		- PFTrA	
		- PFTeA	
		- PF-3,7 DMOA	
		- PFPeS	
		- PFNS	
		- PFUnS	
		- PFDoS	
		- PFTrDS	
		0.01 μg/L to 0.20 μg/L	

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Laboratory Status		: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
Item	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	Alkyl phenol ethoxylate :	In – house method : LBLC-17013
(cont.)		- OPEO	based on ISO 18857-2 : 2009
		- NPEO	
		1 μg/L to 10 μg/L	
		- Phenol	In – house method : LBEN-15007
		0.001 mg/L to 0.1 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed.,2017,
			part 5530 B, C
		- Cyanide	In – house method : LBEN-97018
		0.05 mg/L to 0.2 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed.,2017,
			part 4500-CN [¯] C, E

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Laborato	ory Status	: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	- Oil and Grease	In – house method : LBEN-97031
(cont.)		1 mg/L to 100 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed.,2017,
			part 5520 B
		- Oil and Grease	In - house method : LBEN-18005
		0.5 mg/L to 100 mg/L	based on United States Environmental
			Protection Agency, 2010, EPA,
			Method 1664, Revision B
		- Sulfide	In – house method : LBEN-97045
		0.01 mg/L to 1.0 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed.,2017,
			part 4500-S ²⁻ -D

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Laboratory Status : 🗹 Permanent 🗆 Site 🗖 Temporary 🗖 Mobile		emporary 🛛 Mobile	
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	- Sulfite	In - house method : LBEN-18006
(cont.)		0.75 mg/L to 3.0 mg/L	based on United States Environmental
			Protection Agency, 1978, EPA,
			Method 377.1
		- Total kjeldahl nitrogen	In - house method : LBAG-18002
		2 mg/L to 200 mg/L	based on ISO 5663 : 1984
		- Color	ISO 7887 : 2011, Method B
		0.10 m ⁻¹ to 10.00 m ⁻¹	
		Anti microbial and biocide :	United States Environmental
		- O-Phenylphenol	Protection Agency, 2014, EPA,
		- Triclosan	Method 8270 E (SW-846)
		- Permethrin	
		- Bisphenol A	
		0.2 µg/L to 4.0 µg/L	

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Laboratory Status : Image: Permanent Image: Site Image: Temporary Image: Mobile		emporary 🛛 Mobile	
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	- N'N-Dimethylformamide (DMFa)	United States Environmental
(cont.)		0.50 μg/L to 10.00 μg/L	Protection Agency, 2017, EPA,
			Method 8260 D (SW-846)
		- Thiourea and quinoline	In – house method : LBLC-22021
		50 μg/L to 1 000 μg/L	based on DIN 54231 : 2005-11
		UV Absorbers :	United States Environmental
		- 2-(2H-Benzotriazol-2-yl)-4- (tert-butyl)-	Protection Agency, 2014, EPA,
		6-(sec- butyl) phenol, (UV 350)	Method 8270 E (SW-846)
		- 2-(2H-Benzotriazol-2-yl)-4,6-di-tert-	
		pentylphenol, (UV 328)	
		- 2-Benzotriazole-2-yl-4,6-di-tert-	
		butylphenol, (UV 320)	
		- 2,4-Di-tert-butyl-6-	
		(5-chlorobenzotriazol-2-yl)	
		phenol, (UV 327)	
		10 μg/L to 50 μg/L	

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Laboratory Status : 🗹 Permanent 🗆 Site 🗖 Temporary 🗖 Mobile		emporary 🛛 Mobile	
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	Volatile organic compounds (VOCs) :	United States Environmental
(cont.)		- Toluene	Protection Agency, 2017, EPA,
		1 μg/L to 25 μg/L	Method 8260 D (SW-846)
		Chlorinated paraffin :	
		- Medium-chain chlorinated paraffins	ISO 18219-2 : 2021
		(MCCPs) (C14-C17)	
		- Short-chain chlorinated paraffins	ISO 18219-1 : 2021
		(SCCPs) (C10-C13)	
		5 μg/L to 50 μg/L	

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iboratory Status : 🗹 Permanent 🗆 Site 🛛 Temporary 💭 Mobile		emporary 🛛 Mobile
Test Material /	Test item /	Test Method /
Product	Range of Testing	Technique Used
Wastewater	- Arsenic	In – house method : LBEN-14004
	0.63 µg/L to 6.25 µg/L	based on United States Environmental
	- Lead	Protection Agency, 2014, EPA,
	0.63 μg/L to 6.25 μg/L	Method 6020 B, Revision 2
	- Cadmium	
	0.63 µg/L to 6.25 µg/L	
	- Copper	
	0.63 μg/L to 6.25 μg/L	
	- Manganese	
	0.63 μg/L to 6.25 μg/L	
	- Nickel	
	0.63 μg/L to 6.25 μg/L	
	- Zinc	
	2.5 μg/L to 62.5 μg/L	
	- Silver	
	2.5 μg/L to 62.5 μg/L	
	Test Material / Product	Test Material / Test item / Product Range of Testing Wastewater - Arsenic 0.63 µg/L to 6.25 µg/L - Lead 0.63 µg/L to 6.25 µg/L - Lead 0.63 µg/L to 6.25 µg/L - Cadmium 0.63 µg/L to 6.25 µg/L - Cadmium 0.63 µg/L to 6.25 µg/L - Copper 0.63 µg/L to 6.25 µg/L - Copper 0.63 µg/L to 6.25 µg/L - Manganese 0.63 µg/L to 6.25 µg/L - Nickel 0.63 µg/L to 6.25 µg/L - Zinc 2.5 µg/L to 62.5 µg/L - Zinc 2.5 µg/L to 62.5 µg/L - Zinc 2.5 µg/L to 62.5 µg/L - Silver

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	- Chromium	In – house method : LBEN-14004
(cont.)		0.63 μg/L to 12.5 μg/L	based on United States Environmental
		- Antimony	Protection Agency, 2014, EPA,
		0.63 μg/L to 12.5 μg/L	Method 6020 B, Revision 2
		- Cobalt	
		1.25 μg/L to 62.5 μg/L	
		- Barium	
		1.25 μg/L to 62.5 μg/L	
		- Boron	
		1.25 μg/L to 62.5 μg/L	
		- Selenium	
		0.63 μg/L to 12.5 μg/L	
		- Tin	
		0.13 μg/L to 6.25 μg/L	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	- Hexavalent chromium	ISO 18412 : 2005
(cont.)		1.0 μg/L to 5.0 μg/L	
		Flame retardant	In - house method : LBLC-18001
		- Tris (2,3-dibromopropyl)	based on ISO 18857-2 : 2009
		phosphate	
		- Bis (2,3-dibromopropyl)	
		phosphate	
		1.00 μg/L to 4.00 μg/L	

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Laborato	ory Status	: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	Disperse dyes	In - house method : LBLC-18002
(cont.)		- Disperse Blue 1	based on Journal of Chromatographic
		- Disperse Blue 7	Science 2015,53 : page 1257-1264
		- Disperse Brown 1	
		- Disperse Orange 1	
		- Disperse Orange 3	
		- Disperse Orange 11	
		- Disperse Orange 37/76	
		- Disperse Red 1	
		- Disperse Yellow 1	
		- Disperse Yellow 9	
		- Disperse Yellow 39	
		- Basic violet 3	
		- Solvent Yellow 1	
		- Solvent Yellow 2	
		- Solvent Yellow 3	
		10.0 μg/L to 50.0 μg/L	

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Laborato	ory Status	: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
Item	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	Disperse dyes	In - house method : LBLC-18002
(cont.)		- Basic violet 1	based on Journal of Chromatographic
		- Solvent Yellow 14	Science 2015,53 : page 1257-1264
		- Disperse Yellow 54	
		- Disperse Violet 1	
		10.0 µg/L to 50.0 µg/L	
		Azo colorants	In - house method : SOP LBGC-18004
		- Aniline	based on ISO 14362-1 : 2017
		- n-Methylaniline	
		- p-Toluidine	
		- o-Toluidine	
		- m-Toluidine	
		- n-Ethylaniline	
		- 2-Chloroaniline	
		- 2,4-Xylidine	
		2,6-Xylidine	
		0.5 μg/L to 3.0 μg/L	

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Laborato	ory Status	: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	Azo colorants	In - house method : SOP LBGC-18004
(cont.)		- o-Anisidine	based on ISO 14362-1 : 2017
		- 4-Chloroaniline	
		- n,n-diethylanaline	
		- p-Cresidine	
		- 2,4,5-Trimethylaniline	
		- 4-Chloro-o-toluidine	
		- 2,4-Toluenediamine	
		- 2,4-Diaminoanisole	
		- 2-Naphtylamine	
		- 5-Nitro-o-toluidine	
		- 5-Nitro-o-anisidine	
		- 4-Aminobiphenyl	
		- 4-Aminoazobenzene	
		- 4,4'-Oxydianiline	
		- Benzidine	
		0.5 μg/L to 3.0 μg/L	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	Azo colorants	In - house method : SOP LBGC-18004
(cont.)		- 4,4'-Thiodianiline	based on ISO 14362-1 : 2017
		- o-Aminoazotoluene	
		- 3,3'-Dimethyl-4,4'-	
		diaminodiphenylmethane	
		- 3,3'-Dimethylbenzidine	
		- 4,4'-Thiodianiline	
		- 3,3'-Dichlorobenzidine	
		- 4,4'-Methylenebis (2-Chloroaniline)	
		- 3,3'-Dimethoxybenzidine	
		0.5 µg/L to 3.0 µg/L	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	Flame retarndants	In - house method : LBGC-18005
(cont.)		- 2,2-bis(bromomethyl)-1,3-propane-diol	based on United States Environmental
		- Tris (2-chloroethyl) phosphate	Protection Agency, 2005, EPA,
		- Tris (1,3-dichloro-isopropyl) phosphate	Method 527, Revision 1.0
		- Hexabromocyclododecane	
		5 μg/L to 25 μg/L	
		- Polybrominated biphenyls ether	
		- polybrominated diphenyl ethers	
		0.25 μg/L to 1.5 μg/L	

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Item	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	Organotin compounds	In - house method : SOP LBGC-18006
(cont.)		- Trimethyltin(TMT)	based on ISO 17353 : 2004
		- Dimethyltin(DMT)	
		- Dipropytin-dichloride(DProT)	
		- Monobutytin(MBT)	
		- Tripropyltin(TPrT)	
		- Dibutytin(DBT)	
		- Tributyltin(TBT)	
		- Monooctyltin(MOT)	
		- Tetrabutyltin(TeBT)	
		- Diphenyltin(DPhT)	
		- Dioctyltin(DOT)	
		- Triphenyltin(TPhT)	
		- Tri-cyclohexyltin(TCyT)	
		- Tri-n-octyltin(TOT)	
		0.05 μg/L to 1.0 μg/L	

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Laborato	ory Status	: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	Polycyclic Aromatic Hydrocarbons	In - house method : LBGC-18008
(cont.)		(PAH)	based on DIN 38407-39 : 2011
		- Naphthalene	
		- 2-Methylnaphthalene	
		- 1-Methylnaphthalene	
		- Acenaphthylene	
		- Acenaphthene	
		- Fluorene	
		- Phenanthrene	
		- Anthracene	
		- Fluoranthene	
		- Pyrene	
		- Cyclopenta (c,d) pyrene	
		- Benzo(a) Anthracene	
		- Chrysene	
		1.0 μg/L to 20.0 μg/L	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	Polycyclic Aromatic Hydrocarbons	In - house method : LBGC-18008
(cont.)		(PAH)	based on DIN 38407-39 : 2011
		- Benzo(b) Fluoranthene	
		- Benzo(j) Fluoranthene	
		- Benzo(k) Fluoranthene	
		- Benzo(e) Pyrene	
		- Benzo(a) Pyrene	
		- Indenol(1,2,3-cd) Pyrene	
		- Dibenzo (ah) Anthracene	
		- Benzo (ghi) perylene	
		1.0 μg/L to 20.0 μg/L	

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Laborato	ory Status	: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	Chlorophenol	In - house method : SOP LBGC-18003
(cont.)		- 4-Chloro-3-methylphenol	based on ISO 17070 : 2015
		- 2-Chlorophenol	
		- 3-Chlorophenol	
		- 4-Chlorophenol	
		- 2,4-Dichlorophenol	
		- 2,5-Dichlorophenol	
		- 2,6-Dichlorophenol	
		- 3,5-Dichlorophenol	
		- 2,3-Dichlorophenol	
		- 3,4-Dichlorophenol	
		- Pentachlorophenol	
		- 2,3,4,6-Tetrachlorophenol	
		- 2,4,5-Trichlorophenol	
		- 2,4,6-Trichlorophenol	
		- 2,3,4-Trichlorophenol	
		0.5 μg/L to 20.0 μg/L	

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Laborato	ory Status	: 🗹 Permanent 🗆 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	Chlorophenol	In - house method : SOP LBGC-18003
(cont.)		- 2,3,4,5-Tetrachlorophenol	based on ISO 17070 : 2015
		- 2,3,5-Trichlorophenol	
		- 2,3,5,6-Tetrachlorophenol	
		- 2,3,6-Trichlorophenol	
		- 3,4,5-Trichlorophenol	
		0.5 μg/L to 20.0 μg/L	
		Phthalates	In - house method : LBGC-18007
		- Dimethyl phthalate	based on ISO 18856 : 2004
		- Diethyl phthalate	
		- Bis-iso-buthyl ester phthalate	
		- Benzyl buthyl phthalate	
		- Di-n-octyl phthalate	
		- Di-2-ethyl hexyl phthalate	
		- Di-isononyl phthalate	
		- Bis methylglycol ester phthalate	
		5 µg/L to 30 µg/L	

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Laborato	ory Status	: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
Item	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	Phthalates	In - house method : LBGC-18007
(cont.)		- Di-isoheptyl phthalate	based on ISO 18856 : 2004
		- Bis cyclohexyl phthalate	
		- Di-n–octyl phthalate	
		- Bis-(2-propylheptyl) phthalate	
		- Bis-nonyl phthalate	
		- Bis-propyl phthalate	
		- Bis-iso-pentyl phthalate	
		- n-pentyl-iso-pentyl phthalate	
		- Bis-n-pentyl phthalate	
		- Di-n-hexyl phthalate	
		- Bis-iso-octhyl phthalate	
		- Di-isodecyl phthalate	
		5 µg/L to 30 µg/L	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	Volatile organic compounds	In - house method : SOP LBGC-18009
(cont.)		- Methylene Chloride	based on United States Environmental
		- Benzene	Protection Agency, 1996, EPA,
		- 1,2-Dichloroethane	Method 8260 D, Revision 2.0
		- Trichloroethylene	
		- Tetrachloroethylene	
		- Total Xylene	
		5 μg/L to 20 μg/L	
		- p- Cresol	In - house method : LBGC-18010
		- o- Cresol	based on United States Environmental
		- m- Cresol	Protection Agency, 1996, EPA,
		5 μg/L to 25 μg/L	Method 8260 B, Revision 2.0

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Laborato	ory Status	: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
Item	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	Perfluorocarbons (PFCs) :	In - house method : LBGC-18011
(cont.)		- 6:2 FTOH	based on DIN 38407-42 : 2011
		- 8:2 FTOH	
		- 10:2 FTOH	
		- 6:2 FTA	
		- 8:2 FTA	
		- 10:2 FTA	
		5 μg/L to 25 μg/L	
		Chlorobenzenes and	In – house method : LBGC-21010
		Chlorotoluenes (COCs) :	based on United States Environmental
		- Chlorobenzene	Protection Agency, 2014, EPA,
		- 2-Chlorotoluene	Method 8270 E (SW-846)
		- 3-Chlorotoluene	
		- 4-Chlorotoluene	
		0.20 μg/L to 5.00 μg/L	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	Chlorobenzenes and	In – house method : LBGC-21010
(cont.)		Chlorotoluenes (COCs) :	based on United States Environmental
		- 1,3-Dichlorobenzene	Protection Agency, 2014, EPA,
		- 1,4-Dichlorobenzene	Method 8270 E (SW-846)
		- 1,2-Dichlorobenzene	
		- 3,5-Dichlorotoluene	
		- 2,4-Dichlorotoluene	
		- 2,5 Dichlorotoluene	
		- 2,6-Dichlorotoluene	
		- 1,3,5-Trichlorobenzene	
		- 2,3-Dichlorotoluene	
		- 3,4-Dichlorotoluene	
		- 1,2,4-Trichlorobenzene	
		- 1,2,3-Trichlorobenzene	
		- 2,4,6-Trichlorotoluene	
		- 2,4,5 -Trichlorotoluene	
		0.20 μg/L to 5.00 μg/L	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	Chlorobenzenes and	In – house method : LBGC-21010
(cont.)		Chlorotoluenes (COCs) :	based on United States Environmental
		- 1,2,3,5-Tetrachlorobenzene	Protection Agency, 2014, EPA,
		- 3,4,5-Trichlorotoluene	Method 8270 E (SW-846)
		- 1,2,4,5-Tetrachlorobenzene	
		- 2,3,4-Trichlorotoluene	
		- 1,2,3,4-Tetrachlorobenzene	
		- 2,3,4,6-Tetrachlorotoluene	
		- 2,3,5,6-Tetrachlorotoluene	
		- 2,3,4,5-Tetrachlorotoluene	
		- Pentachlorobenzene	
		- 2,3,4,5,6-Pentachlorotoluene	
		- Hexachlorobenzene	
		0.20 μg/L to 5.00 μg/L	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	Alkylphenol (AP) :	In – house method : LBLC-17013
(cont.)		- Nonylphenol (NP)	based on ISO 18857-2: 2009
		- 4-n-Nonyl phenol (4-n-NP)	
		- 4-n-Octylphenol (4-n-OP)	
		- Octylphenol (4-tert-OP)	
		1.0 μg/L to 10.0 μg/L	
		- Carbon disulfide	In – house method : LBGC-20007
		0.05 mg/L to 1 mg/L	based on United States Environmental
			Protection Agency, 2017, EPA,
			Method 8260 D
		- Hydrocarbon	In - house method : LBEN 21002
		1.0 mg/L to 50 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 5220 B, 5520 F

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
2	Wastewater	- Coliforms	Standard Methods for the Examination
(cont.)		MPN/100 mL	of Water and Wastewater, APHA,
		Detected or Not detected/100 mL	AWWA & WEF, 23 rd ed, 2017,
			part 9221 B
		- Coliforms	ISO 9308 -1: 2014 / Amd.1: 2016
		CFU/100 mL	
		- E.coli	Standard Methods for the Examination
		MPN/100 mL	of Water and Wastewater, APHA,
		Detected or Not detected/100 mL	AWWA & WEF, 23 rd ed, 2017,
			part 9221 B, 9221 C, 9221 F and FDA BAM
			Online, 2020 (Chapter 4)
3	Surface water	- Ammonia-Nitrogen	In - house method : LBEN–11158
		0.02 mg/L to 20 mg/L	based on ASTM D1426-08

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
3	Surface water	- Chloride	In - house method : LBEN–11157
(cont.)		1 mg/L to 20 000 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 4500-Cl [®] D
		- Total phosphorus	In - house method : LBEN–97037
		0.01 mg/L to 40 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 4500-P B4, E
		- Dissolved phosphorus	In - house method : LBEN–97037
		0.005 mg/L to 20 mg/L	based on Standard Methods for the
			Examination of Water and Wastewater,
			APHA, AWWA & WEF, 23 rd ed., 2017,
			part 4500-P B1, E

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
4	Sludge	- Mercury	In - house method : LBEN–18008
		0.1 mg/kg to 4.0 mg/kg	based on United States Environmental
			Protection Agency, 2007, EPA,
			Method 7473, Revision 0
		- Hexavalent chromium	In - house method : LBEN-18003
		1.0 mg/kg to 40.0 mg/kg	based on United States Environmental
			Protection Agency, 1992, EPA,
			Method 7196 A, Revision 1
		- Fecal coliforms	United States Environmental
		MPN/g	Protection Agency, 2006, EPA,
			Method 1681

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
4	Sludge	- Arsenic	In - house method : LBEN 18007
(cont.)		0.50 mg/kg to 5.00 mg/kg	based on United States Environmental
		- Cadmium	Protection Agency, 2014, EPA,
		0.50 mg/kg to 5.00 mg/kg	Method 6020 B, Revision 2
		- Lead	
		0.50 mg/kg to 5.00 mg/kg	
		- Zinc	
		1.00 mg/kg to 5.00 mg/kg	
		- Nickel	
		1.00 mg/kg to 5.00 mg/kg	
		- Copper	
		1.00 mg/kg to 5.00 mg/kg	
		- Cadmium	
		10 mg/kg to 1 000 mg/kg	
		- Lead	
		10 mg/kg to 1 000 mg/kg	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
4	Sludge	- Barium	In - house method : LBEN-18007
(cont.)		1.00 mg/kg to 50.00 mg/kg	based on United States Environmental
		- Selenium	Protection Agency, 2014, EPA,
		0.50 mg/kg to 10.00 mg/kg	Method 6020 B, Revision 2
		- Antimony	
		0.50 mg/kg to 10.00 mg/kg	
		- Chromium	
		0.50 mg/kg to 10.00 mg/kg	
		- Cobalt	
		1.00 mg/kg to 50.00 mg/kg	
		- Silver	
		1.00 mg/kg to 50.00 mg/kg	
		- Mercury	
		0.10 mg/kg to 5.00 mg/kg	
		- Cyanide	In - house method : SOP LBEN-19001
		0.50 mg/kg to 10.0 mg/kg	based on ISO 11262 : 2011

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Laborato	ory Status	: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
Item	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
5	Sludge Waste	Chlorophenol :	In - house method : SOP LBGC-20004
		- 4-Chloro-3-methylphenol	based on ISO 14154 : 2005
		- 2-Chlorophenol	
		- 3-Chlorophenol	
		- 4-Chlorophenol	
		- 2,3-Dichlorophenol	
		- 2,4-Dichlorophenol	
		- 2,5-Dichlorophenol	
		- 2,6-Dichlorophenol	
		- 3,4-Dichlorophenol	
		- 3,5-Dichlorophenol	
		- Pentachlorophenol	
		- 2,3,4-Trichlorophenol	
		- 2,3,5-Trichlorophenol	
		- 2,3,6-Trichlorophenol	
		0.05 mg/kg to 1.00 mg/kg	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
5	Sludge Waste	Chlorophenol :	In - house method : SOP LBGC-20004
(cont.)		- 2,4,5-Trichlorophenol	based on ISO 14154 : 2005
		- 2,4,6-Trichlorophenol	
		- 3,4,5-Trichlorophenol	
		- 2,3,4,5-Tetrachlorophenol	
		- 2,3,4,6-Tetrachlorophenol	
		- 2,3,5,6-Tetrachlorophenol	
		0.05 mg/kg to 1.00 mg/kg	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
5	Sludge Waste	Polycyclic Aromatic Hydrocarbons	In - house method : SOP LBGC-20005
(cont.)		(PAHs) :	based on DIN 38407-39 : 2011
		- Naphthalene	
		- 2-Methylnaphthalene	
		- 1-Methylnaphthalene	
		- Acenaphthylene	
		- Acenaphthene	
		- Fluorene	
		- Phenanthrene	
		- Anthracene	
		- Fluoranthene	
		- Pyrene	
		- Cyclopenta (c,d) pyrene	
		- Benzo(a) anthracene	
		- Chrysene	
		0.0025 mg/kg to 0.1 mg/kg	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
5	Sludge Waste	Polycyclic Aromatic Hydrocarbons	In - house method : SOP LBGC-20005
(cont.)		(PAHs) :	based on DIN 38407-39 : 2011
		- Benzo(k) fluoranthene	
		- Benzo(b) fluoranthene	
		- Benzo(j) fluoranthene	
		- Benzo(e) pyrene	
		- Benzo(a) pyrene	
		- Indenol(1,2,3-cd) pyrene	
		- Dibenzo (ah) anthracene	
		- Benzo (ghi) perylene	
		0.0025 mg/kg to 0.1 mg/kg	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
5	Sludge Waste	Glycol :	In - house method : SOP LBGC-21011
(cont.)		- 2-Methoxyethanol	based on ISO 23161 : 2018
		- 2-Ethoxyethyl acetate	
		- Bis(2-methoxyethyl)ether	
		- 2-Ethoxyethanol	
		- 2-Methoxypropylacetate	
		- 2-Methoxyethylacetate	
		- Triethylene glycol dimethyl ether	
		- Ethylene glycol dimethyl ether	
		0.50 mg/kg to 5.00 mg/kg	
		Organotin Compounds :	
		- Trimethyltin (TMT)	
		- Dimethyltin (DMT)	
		- Monomethyltin(MMT)	
		- Dipropytin-dichloride (DProT)	
		0.50 mg/kg to 2.00 mg/kg	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
5	Sludge Waste	Organotin Compounds :	In - house method : SOP LBGC-21011
(cont.)		- Monobutytin (MBT)	based on ISO 23161 : 2018
		- Tripropyltin (TPrT)	
		- Dibutytin (DBT)	
		- Monophenyltin (MPhT)	
		- Tributyltin (TBT)	
		- Monooctyltin (MOT)	
		- Tetrabutyltin (TeBT)	
		- Diphenyltin (DPhT)	
		- Dioctyltin (DOT)	
		- Tri-cyclohexyltin (TCyT)	
		- Triphenyltin (TPhT)	
		- Tri-n-octyltin (TOT)	
		0.50 mg/kg to 2.00 mg/kg	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
5	Sludge Waste	Disperse dyes :	In - house method : SOP LBGC-21006
(cont.)		- Acid Violet 49	based on ISO 16373-3 : 2014
		- Basic Blue 26	
		- Basic Green 4	
		- Basic Red 9	
		- Basic Violet 1	
		- Basic Violet 3	
		- Disperse Blue 1	
		- Disperse Blue 3	
		- Disperse Blue 7	
		- Disperse Blue 106	
		- Disperse Yellow 1	
		- Disperse Yellow 3	
		- Disperse Yellow 9	
		- Disperse Red 17	
		- Solvent Yellow 1	
		- Solvent Yellow 3	
		1.00 mg/kg to 4.00 mg/kg	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
5	Sludge Waste	Chlorobenzenes and	In - house method : LBGC–21014
(cont.)		Chlorotoluenes (COCs) :	based on United States Environmental
		- Chlorobenzene	Protection Agency, 2014, EPA,
		- 2-Chlorotoluene	Method 8270D
		- 3-Chlorotoluene	
		- 4-Chlorotoluene	
		- 1,3-Dichlorobenzene	
		- 1,4-Dichlorobenzene	
		- 1,2-Dichlorobenzene	
		- 2,4-Dichlorotoluene	
		- 2,5-Dichlorotoluene	
		- 2,6-Dichlorotoluene	
		- 1,3,5-Trichlorobenzene	
		- 2,3-Dichlorotoluene	
		- 3,4-Dichlorotoluene	
		0.025 mg/kg to 0.50 mg/kg	

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Item	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
5	Sludge Waste	Chlorobenzenes and	In - house method : LBGC–21014
(cont.)		Chlorotoluenes (COCs) :	based on United States Environmental
		- 1,2,4-Trichlorobenzene	Protection Agency, 2014, EPA,
		- 1,2,3-Trichlorobenzene	Method 8270D
		- 2,4,6-Trichlorotoluene	
		- 2,4,5 -Trichlorotoluene	
		- 2,3,6-Trichlorotoluene	
		- 1,2,3,5-Tetrachlorobenzene	
		- 3,4,5-Trichlorotoluene	
		- 1,2,4,5-Tetrachlorobenzene	
		- 2,3,4-Tetrachlorotoluene	
		- 1,2,3,4-Tetrachlorobenzene	
		- 2,3,4,6-Tetrachlorotoluene	
		- 2,3,5,6-Tetrachlorotoluene	
		- 2,3,4,5-Tetrachlorotoluene	
		0.025 mg/kg to 0.50 mg/kg	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
5	Sludge Waste	Chlorobenzenes and	In - house method : LBGC–21014
(cont.)		Chlorotoluenes (COCs) :	based on United States Environmental
		- Pentachlorobenzene	Protection Agency, 2014, EPA,
		- 2,3,4,5,6-Pentachlorotoluene	Method 8270D
		- Hexachlorobenzene	
		0.025 mg/kg to 0.50 mg/kg	
		Azo dyes :	In - house method : LBGC–21019
		- Aniline (62-53-3)	based on ISO 14362-1 and 3 : 2017
		- n-methylaniline (100-61-8)	
		- p-Toluidine (106-49-0)	
		- o-Toluidine (95-53-4)	
		- m-Toluidine (108-44-1)	
		- n-ethylaniline (103-69-5)	
		- 2-Chloroaniline (95-51-2)	
		0.20 mg/kg to 1.50 mg/kg	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
5	Sludge Waste	Azo dyes :	In - house method : LBGC–21019
(cont.)		- 2,4-Xylidine (95-68-1)	based on ISO 14362-1 and 3 : 2017
		- 2,6-Xylidine (87-62-7)	
		- o-Anisidine (90-04-0)	
		- 4-Chloroaniline(106-47-8)	
		- n,n-Diethylaniline (91-66-7)	
		- p-Cresidine (120-71-8)	
		- 2,4,5 -Trimethylaniline (137-17-7)	
		- 4-Chloro-o-toluidine (95-69-2)	
		- 2,4-Toluenediamine (95-80-7)	
		- 2,4 -Diaminoanisole (615-05-4)	
		- 2-Naphtylamine (91-59-8)	
		- 3,3'-dimethybenzidine (119-90-4)	
		- 3,3'-dimethybenzidine (119-93-7)	
		0.20 mg/kg to 1.50 mg/kg	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
5	Sludge Waste	Azo dyes :	In - house method : LBGC-21019
(cont.)		- 4,4'-Thiodianiline (139-65-1)	based on ISO 14362-1 and 3 : 2017
		- 3,3'-Dichlorobenzidine (91-94-1)	
		- 4,4'-Methylene bis(2-chloroaniline)	
		(101-14-4)	
		- 4-Aminobipheny (92-67-1)	
		- 4,4'-Oxydianiline (101-80-4)	
		- Benzindine (92-87-5)	
		- 4,4'-Thiodianiline (101-77-9)	
		- 3,3'-Dimethy- 4,4'-	
		diaminodiphenymethane (838-88-0)	
		0.20 mg/kg to 1.50 mg/kg	

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Item	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
5	Sludge Waste	Perfluorinated/Polyfluorinated (PFCs) :	In - house method : LBGC–21023
(cont.)		- 1H,1H,2H,2H-Tridecafluoro-1-n-octanol	based on DIN 38407-42 : 2011
		(6:2 FTOH)	
		- 1H,1H,2H,2H-Heptadecafluoro-	
		1-decanol (8:2 FTOH)	
		- 1H,1H,2H,2H-Perfluoro-1-dodecanol	
		(10:2 FTOH)	
		- 1H,1H,2H,2H-Perfluorooctyl acrylate	
		(6:2 FTA)	
		- 1H,1H,2H,2H-Heptadecafluorodecyl	
		Acrylate (8:2 FTA)	
		- 1H,1H,2H,2H-Perfluorododecyl	
		acrylate (10:2 FTA)	
		0.25 mg/kg to 1.5 mg/kg	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
5	Sludge Waste	Perfluorinated/Polyfluorinated (PFCs) :	In – house method : LBLC-17014
(cont.)		- PFOA	based on DIN 38407-42 : 2011
		- PFOS	
		- PFBS	
		- PFHXA	
		0.025 mg/kg to 0.15 mg/kg	
		Flame retardant :	In - house method : LBGC–21020
		- Tris(2-chloroethyl) phosphate (TCEP)	based on ISO 22032 : 2006
		- Tris(1,3-dichloro-isopropyl) phosphate	
		(TDCP)	
		- Hexabromocyclododecane (HBCDD)	
		- Tri-o-cresyl phosphate(TOCP)	
		- Tris-(aziridinyl)phosphine oxide (TEPA)	
		- Polybromobiphenyls (PBB)	
		- Polybromobiphenyls ether (PBDE)	
		0.25 mg/kg to 0.75 mg/kg	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
5	Sludge Waste	Flame retardant :	In - house method : LBLC-18001
(cont.)		- Tris(2,3-dibromopropyl) phosphate	based on ISO 22032 : 2006
		- Bis(2,3-dibromopropyl) phosphate	
		- 2,2,-Bis(bromomethyl)-1,3-propanediol	
		0.5 mg/kg to 2 mg/kg	
		Alkylphenol (AP) :	In – house method : LBLC-17013
		- Nonylphenol (NP)	based on ISO 18857-2 : 2009
		- 4-n-Nonyl phenol (4-n-NP)	
		- 4-n-Octylphenol (4-n-OP)	
		- Octylphenol (4-tert-OP)	
		0.5 mg/kg to 5 mg/kg	
		Alkylphenol Ethoxylates (APEOs) :	In – house method : LBLC-17013
		- Nonylphenol ethoxylates (NPEO)	based on ISO 18857-2 : 2009
		- Octhylphenol ethoxylates (OPEO)	
		0.1 mg/kg to 2 mg/kg	

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Item	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
5	Sludge Waste	Volatile Organic compound	In - house method : LBGC–21024
(cont.)		(Halogenated solvent) :	based on United States Environmental
		- Methylene chloride	Protection Agency, 2014, EPA,
		- Benzene	Method 5021
		- 1,2-Dichloroethane	
		- Trichloroethylene	
		- tetrachloroethylene	
		- p,m Xylene	
		- o-xylene	
		0.02 mg/kg to 0.20 mg/kg	

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ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
5	Sludge Waste	Phthalates :	In – house method : LBGC-21021
(cont.)		- Dimethyl phthalate (DMP)	based on ISO 18856 : 2004
		- Bis-iso-butyl ester Phthalate (DIBP)	
		- Di-butyl Phthalate (DBP)	
		- Benzyl Butyl Phthalate (BBP)	
		- Di-2-Ethyl Hexyl Phthalate (DEHP)	
		- Di-n-octyl Phthalate (DNOP)	
		- Bis-ethyl phthalate (DEP)	
		- Bis-methylglycol ester Phthalate	
		(DMEP)	
		- Bis-iso-pentyl ester Phthalate (DiPP)	
		- n-Pentyl-iso-Pentyl phthalate (iPnPP)	
		- Bis-n-pentyl ester Phthalate (DnPP)	
		- Di-n-hexyl Phthalate (DnHP/DnHxP)	
		- Bis-cyclohexyl phthalate (DCHP)	
		- Bis-(2-Propylheptyl) phthalate (DPHP)	
		0.05 mg/kg to 1.5 mg/kg	

Initial Issue Date 22nd June 2007

Issue Number 14

Laboratory Name	: SGS (Thailand) Limited, Laboratory Services
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Address : 10, 10/1-4 and 12 Soi Rama III S.59,

Chong Nonsi, Yan Nawa, Bangkok 10120

Accreditation Number : Testing - 0017

Laboratory Status : 🗹 Permanent 🗆 Site 🗖 Temporary 🗖 Mobile		emporary 🛛 Mobile	
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
5	Sludge Waste	Phthalates :	In – house method : LBGC-21021
(cont.)		- Bis-propyl phthalate (DPrP)	based on ISO 18856 : 2004
		- Bis-n-heptyl phthalate (DHpP/DnHpP)	
		- Bis-phenylphthalate(DIPHENYL/ DPhP)	
		- Bis-benzyl phthalate (DBzP)	
		- Bis-nonyl phthalate (DNP)	
		- Didecyl Phthalate (DDP)	
		- Diundecyl phthalate(DUDP)	
		0.05 mg/kg to 1.5 mg/kg	
		- Diisononyl Phthalate (DINP)	
		- Diisodecyl Phthalate (DIDP)	
		- Dihexyl Phthalate (DHP)	
		- Bis-iso-octyl phthalate (DIOP)	
		- Diisoheptyl phthalate (DIHP/DIHpP)	
		0.20 mg/kg to 6.0 mg/kg	

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Laborato	ory Status	: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
5	Sludge Waste	Volatile Organic compound (Cresol) :	In - house method : LBGC–21022
(cont.)		- o-cresol	based on United States Environmental
		- m-cresol	Protection Agency, 2017, EPA,
		- p-cresol	Method 8260 D
		0.25 mg/kg to 1.5 mg/kg	
6	Chemical fertilizer	- Water soluble potassium	In - house method : SOP LBCH-99246
		(Calculated as K ₂ O)	based on Notification of Ministry of
		1.0 g/100 g to 60.4 g/100 g	Agriculture and Cooperatives Re: Prescribing
			the methods of analysis of chemical
			fertilizers, B.E. 2559, method 1.12.02
		- Total Nitrogen	In - house method : SOP LBAG-12276
		1.0 g/100 g to 46.5 g/100 g	based on Notification of Ministry of
			Agriculture and Cooperatives Re: Prescribing
			the methods of analysis of chemical
			fertilizers, B.E. 2559, method 1.05.01

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Issue Number 14

Laboratory Name	: SGS (Thailand) Limited, Laboratory Service
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Address : 10, 10/1-4 and 12 Soi Rama III S.59,

Chong Nonsi, Yan Nawa, Bangkok 10120

Accreditation Number : Testing - 0017

Laborato	ory Status	: 🗹 Permanent 🛛 Site 🛛 T	emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
6	Chemical fertilizer	- Total phosphorus	In - house method : SOP LBAG-00106
(cont.)		(Calculated P ₂ O ₅)	based on Notification of Ministry of
		2.00 g/100 g to 61.68 g/100 g	Agriculture and Cooperatives Re: Prescribing
			the methods of analysis of chemical
			fertilizers, B.E. 2559, method 1.09.01
		- Calcium oxide	In - house method : SOP LBCH-16010
		(Calculated from total calcium)	based on Notification of Ministry of
		0.02 g/100 g to 51.8 g/100 g	Agriculture and Cooperatives Re: Prescribing
			the methods of analysis of chemical
			fertilizers, B.E. 2559, method 1.13.01
		- Magnesium oxide	In - house method : SOP LBCH-16010
		(Calculated from total magnesium)	based on Notification of Ministry of
		0.02 g/100 g to 81.04 g/100 g	Agriculture and Cooperatives Re: Prescribing
			the methods of analysis of chemical
			fertilizers, B.E. 2559, method 1.14.01

Initial Issue Date 22nd June 2007

Issue Number 14

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Chong Nonsi, Yan Nawa, Bangkok 10120

Accreditation Number : Testing - 0017

Laborato	Laboratory Status : \blacksquare Permanent \square Site \square Temporary \square Mobile		emporary 🛛 Mobile
ltem	Test Material /	Test item /	Test Method /
Number	Product	Range of Testing	Technique Used
6	Chemical fertilizer	- Total sulfur	In - house method : SOP LBCH-16010
(cont.)		0.02 g/100 g to 32.76 g/100 g	based on Notification of Ministry of
			Agriculture and Cooperatives Re: Prescribing
			the methods of analysis of chemical
			fertilizers, B.E. 2559, method 1.15.01

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Issue Number 14