G-STAR RAW

WASTE WATER DISCHARGE REPORT

APRIL 2018

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INTRODUCTION

G-Star is committed to eliminate industrial releases of hazardous chemicals into the environment, and set the target to reach zero discharge of hazardous chemicals from all our products and production processes by 2020.

The basis of our Responsible Supply Chain policy is the G-Star Supplier Code of Conduct (CoC) that clarifies and elevates the expectations we have of suppliers we work with and lays down the minimum Social and Environmental, Health & Safety (EHS) standards we expect each factory to meet.

In order to reach the goal of zero discharge G-Star has taken several steps, which are outlined and explained in this introduction and more in detail in our annual detox progress report.

As cooperation across the entire industry is essential we have taken the initiative to collaboratively work with a large number of world leading brands and other value chain affiliates towards zero discharge of hazardous chemicals by 2020. As 'ZDHC Joint Roadmap Group' this collaboration of brands has set specific actions and timelines to realize this shared commitment and to set the right standard of environmental performance for the global apparel and footwear industry. G-Star supports and puts effort in the group's activities to collectively find safe substitutions for hazardous chemicals used in the apparel industry and work towards zero discharge of hazardous chemicals by 2020. More information can be found on the ZDHC Joint Roadmap website.

In addition, we are a system partner of bluesign®technologies ag. We are committed to implement their bluesign® standard in our supply chain. Bluesign® provides a holistic solution for a sustainable textile production. By joining bluesign® technologies ag we support our environmental goals and encourage suppliers in our entire textile production chain, from raw materials to textile manufacturers, to come to a healthy, safe and environmentally friendly production process.

In addition G-Star has implemented different tools. The first tool is the Restricted Substance List, which we have made publically available and is updated on an annual basis. The purpose of the Restricted Substance List is to inform our suppliers on all chemicals that are banned or restricted in G-Star finished products. We do not allow the use of chemicals in our products that can have a harmful effect on health or the environment. Our Textile Engineers and Chemical Specialists work together with suppliers on proper use of chemicals and compliance with the RSL. To check compliance of our products with regards to the RSL, we perform risk assessments, auditing and testing of our products.

In addition G-Star has introduced their first Manufacturing Restricted Substances List in 2014. The document addresses hazardous substances potentially used and discharged into the environment during manufacturing and related processes, not just those which could be present in finished products. G-Star anticipates that suppliers will work closely with their chemicals suppliers to ensure substances mentioned in this MRSL are not present in any of the chemical commercial products that are purchased from chemical suppliers.

Following this principle, G-Star has adopted the Waste Water Guideline of the ZDHC and implemented an Environmental Guideline which guides our suppliers to set-up a fundamental chemical management system, address the importance of input chemistry and refers to the next level of a cleaner and more sustainable production. Within this document G-Star addresses the Waste Water requirements (according to the ZDHC Waste Water Guideline), which includes the 11 priority chemical groups and beyond, so as a number of conventional parameters, showing foundational, progressive and aspirational limits and standardized test methods for measurements.

In the 4th quarter of 2017, G-Star has conducted waste water discharge testing at key suppliers, which represent >84% of G-Star's production volume. The results of this study allow us to obtain a good understanding of the use and discharge of hazardous chemicals which includes the 11 priority chemicals and beyond, and the additional conventional parameters. We use the data to guide and work with our suppliers towards cleaner and more sustainable production. Waste water testing is done on a frequent basis and is made publically available

The following parameters were tested by various accredited global laboratories-

MRSL Parameters (11 priority chemicals and beyond)

Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers
Chlorobenzenes and Chlorotoluenes
Chlorophenols
Dyes - Azo (Forming Restricted Amines)
Dyes-Carcionogenic or Equivalent Concern
Dyes-disperse (sensitizing)
Flame Retardants
Glycols
Halogenated Solvents
Heavy Metals
Organotin Compounds
Perfluorinated and Polyfluorinated Chemicals
Phthalates
Poly Aromatic Hydrocarbons (PAHs)
Volatile Organic Compound (VOCs)

Conventional Parameters

Temperature
TSS
COD
Total-N
pH
Color [m-1] (436nm; 525nm; 620nm)
BOD5
Ammonium-N
Total-P
AoX
Oil and Grease
Phenol
Coliform (bacteria/100ml)
Persistent Foam
ANIONS Sulfide
ANIONS Sulfite

FACTORY

For this report G-Star selected suppliers from China, Bangladesh, Vietnam and Turkey. These suppliers account for >84% of our global production volume. In line with the 'right to know principle' the test results of our water tests among our global suppliers can be found on IPE, in Appendix I of this report, and on the ZDHC Gateway.

All G-Star's Bangladesh suppliers are disclosing their waste water test results on the ZDHC Gateway, Wastewater Module. Several specific Chinese factories publicly disclose their discharge data on the IPE discharge platform website. Those suppliers are listed in this report. A few Chinese suppliers are currently not disclosing the water discharge data on the IPE website. The suppliers who do not yet publically disclose waste water data, approved to anonymously use the data for this report. For reference, we numbered the factories and indicated the country of production. In this report we share the results of Chinese, Turkish, Vietnamese and Bangladesh factories. Below we also explain the relationship G-Star has with its suppliers.

G-Star will continue the dialogue with the suppliers that do not yet disclose these data. For now, the reports of these suppliers can be found in the annex to this report in an anonymous format.

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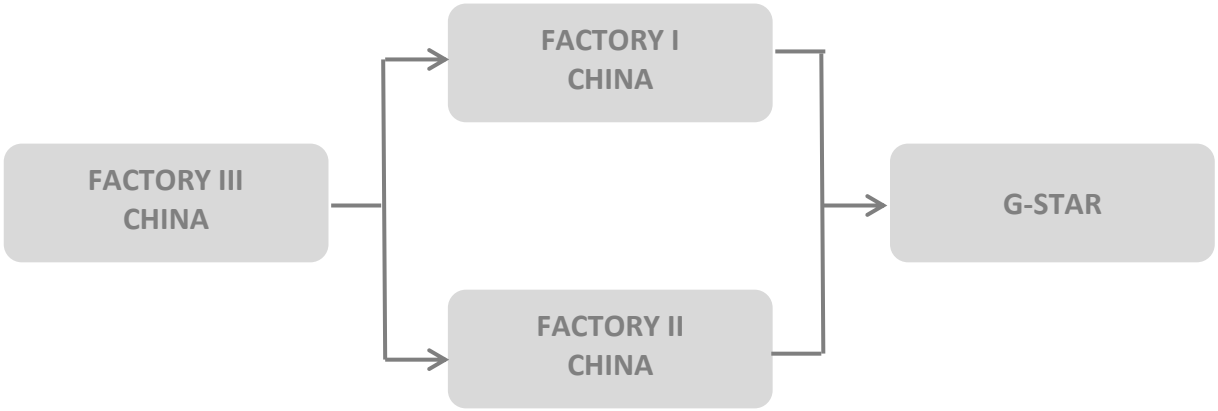
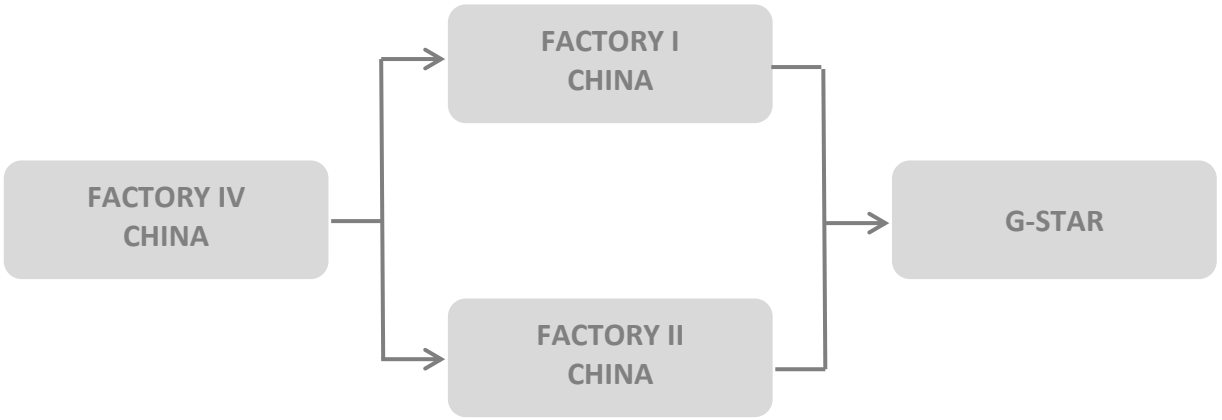
FACTORY III : BLACK PEONY, CHINA
Sector: Textile
Subsector: Mill

The factory is located in the Jiangsu Province in China. The fabric mill is specialized in denim fabrication; the main processes are warping, sizing, beaming, dyeing and finishing. The factory is located in an industrial zone and has its own effluent treatment plant and discharges its treated water into a shared effluent plant.



FACTORY IV CHINA
Sector: Textile
Subsector: Mill

The factory is located in the Jiaxing Province in China. The fabric mill is specialized in denim fabrication; the main processes are warping, sizing, beaming, dyeing and finishing. The factory is located in an industrial zone and has its own effluent treatment plant and discharges its treated water into a shared effluent plant.



FACTORY I: ABILITY, CHINA
Sector: Apparel
Subsector: Multiple Processes

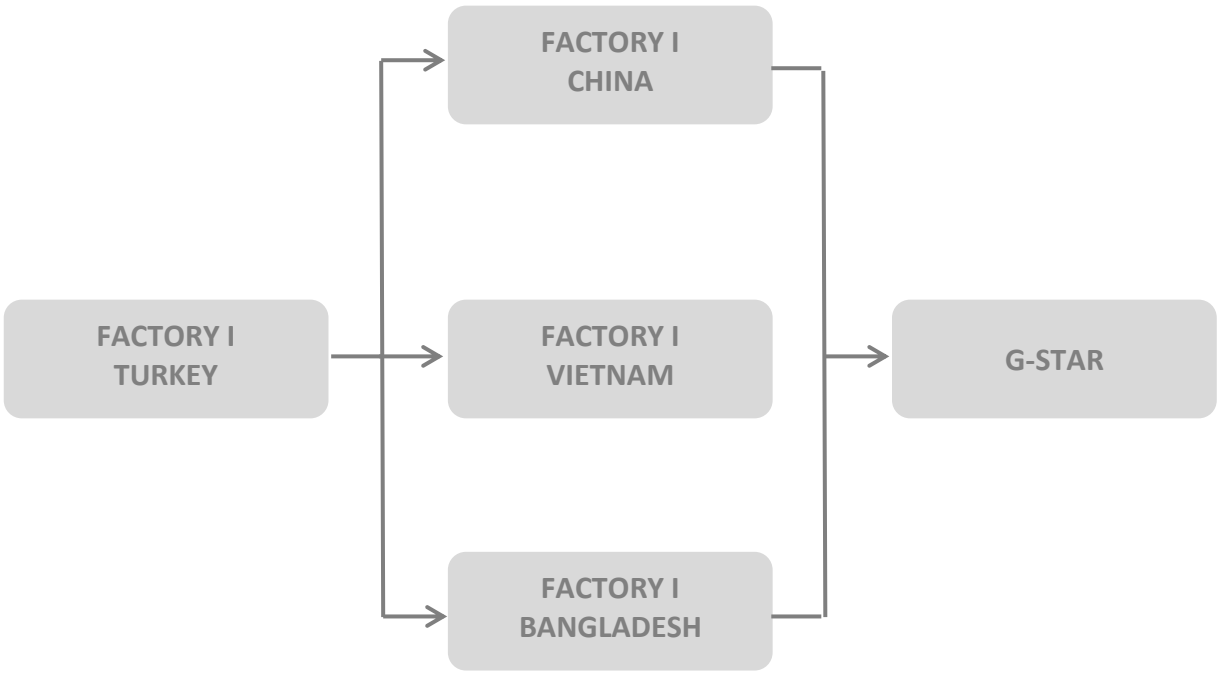
The factory is located in the Jiangsu Province in China. It is a CMT supplier. The main processes are sewing, printing, finishing and washing (laundry). The factory is located in an industrial zone and shares an effluent treatment plant with other companies.

FACTORY II CHINA
Sector: Apparel
Subsector: Multiple Processes

The factory is located in the Guang Dong Province in China. It is a CMT supplier. The main processes are sewing, printing, finishing and washing (laundry). The factory has its own effluent treatment plant.

FACTORY I TURKEY
Sector: Textile
Subsector: Mill

The factory is located in the region of Erdine in Turkey. The fabric mill is specialized in denim fabrication; the main processes are warping, sizing, beaming, dyeing and finishing. The factory has its own effluent treatment plant.



FACTORY I, SAITEX,VIETNAM
Sector: Apparel
Subsector: Multiple Processes

The factory is located in Dong Nai Province in Vietnam. It is a CMT supplier. The main processes are sewing, printing, finishing and washing (laundry). The factory makes use of a closed water system with zero liquid discharge and full recycling; therefore no water is released into the environment. Fresh water is added when necessary due to evaporation.

FACTORY I BANGLADESH
Sector: Apparel
Subsector: Multiple Processes

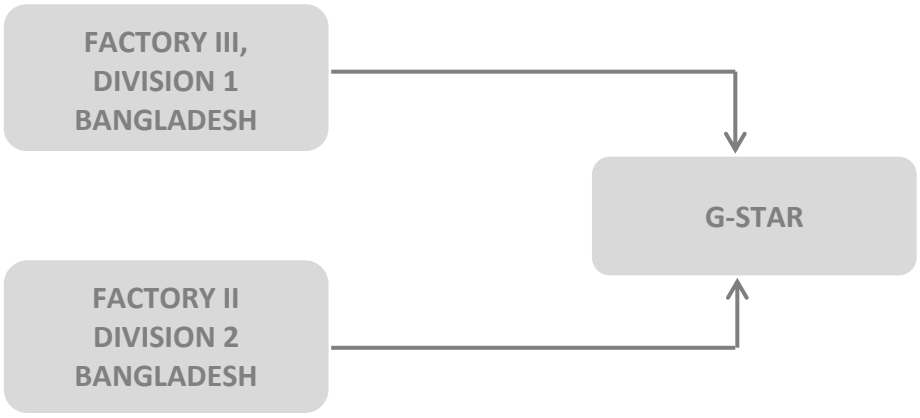
The factory is located in the Dhaka region in Bangladesh. It is a CMT supplier. The main processes are sewing, printing, finishing and washing (laundry). The factory has its own treatment plant.

FACTORY II BANGLADESH
Sector: Apparel
Subsector: Multiple Processes

The factory is located in the Dhaka region in Bangladesh. It is a vertically integrated supplier. The main processes are spinning, yarn dyeing, knitting, fabric dyeing, fabric finishing, cutting, printing, embroidery and sewing, washing (laundry), finishing and packing. The factory has its own effluent treatment plant.

FACTORY III BANGLADESH
Sector: Apparel
Subsector: Multiple Processes

The factory is located in the Dhaka region in Bangladesh. It is a vertically integrated supplier. The main processes are spinning, yarn dyeing, knitting, fabric dyeing, fabric finishing, cutting, printing, embroidery and sewing, washing (laundry), finishing and packing. The factory has its own effluent treatment plant.



METHODOLOGY

LABORATORY SELECTION

G-Star acknowledges Waste Water reports of all ZDHC accepted laboratories. Those laboratories require an ISO 17025 accreditation and need to pass correlation test.
Additionally the laboratory presence in the country where G-Star's suppliers are based is an important factory as water samples must be analyzed within a given time window.

DEFINITION

Within production facilities we differentiate between industrial process water (water stream from production operations) and domestic water (non-process related waste water). The waste water testing conducted focuses entirely on industrial process water.
Dilution of waste water is strictly forbidden, so as the discharge of not used residual amounts of chemical substances and formulations.

Two scenarios of waste water treatments are applicable at production sites.

Direct Discharged

Treated waste water which is directly discharged into a river or other receiving body. Usually this regulated under national pollutant discharge legislations and has to comply with these requirements. A valid permit from legal authorities is mandatory for direct discharged water.

Indirect Discharged

Waste Water which is sent to an industrial or publicly owned waste water treatment plant. In case waste water is discharged to a 3rd party waste water plant (municipal sewage plant) a verification of the external treatment, including operating conditions and compliance to local laws and regulations is mandatory.

SAMPLING METHODOLYGY

Wastewater and sludge samples shall be collected as composite samples following ISO 5667- 13:2011 (Part 1, 3, 10, 13 and 15): Water Quality Sampling Guidance for the preservation and handling of water samples.

To ensure representative samples, composite sampling should be performed for no less than six (6) hours, with no more than one hour between discrete samples. Each discrete sample shall be of equal volume. Sampling using calibrated autosamplers is preferred, but in instances where national standards do not require autosampling, laboratory personnel collecting samples are expected to meet the requirements of national sampling standards.

Samples shall be taken by qualified laboratory personnel. Laboratories performing sample collection must maintain a chain-of-custody log for each sample collected to ensure the integrity of the sample.

In no circumstance shall samples be taken during times when the production process is not running or the wastewater is diluted due to heavy rainfall, etc.

Suppliers are expected to allow for unannounced sampling by ZDHC-accepted laboratories.

Incoming water may be a single grab sample. For facilities with multiple incoming water sources, a single grab sample from a common blend tank is acceptable. If no blend tank, one grab sample shall be collected from each incoming source.

SAMPLE POINTS

Name	Type of discharge	Lab	Comments
Factory III China	Discharge to a centralized ETP after treatment on-site	BV	Incoming water, raw wastewater, discharged wastewater and sludge tested
Factory IV China	Discharge to a centralized ETP after treatment on-site	BV	Incoming water, raw wastewater, discharged wastewater and sludge tested
Factory I China	Indirect discharge to centralized ETP	BV	Incoming water and raw wastewater tested
Factory II China	Factory owned ETP Direct discharge	BV	Incoming water, raw wastewater, discharged wastewater and sludge tested
Factory I Turkey	Factory owned ETP Direct discharge	BV	Incoming water, raw wastewater, discharged wastewater and sludge tested
Factory I Vietnam	Zero Liquid Discharge	SGS	Raw wastewater tested
Factory I Bangladesh	Factory owned ETP Direct discharge	BV	Incoming water, raw wastewater and discharged wastewater tested
Factory II Bangladesh	Factory owned ETP	SGS	Discharged wastewater and sludge tested
Factory III Division I Bangladesh	Factory owned ETP Direct discharge	BV	Incoming water, discharged wastewater and sludge tested
Factory III Division II Bangladesh	Factory owned ETP Direct discharge	BV	Incoming water, discharged wastewater and sludge tested

TESTING METHOD AND DETECTION LIMITS

The testing methods and detection limits are aligned with the ZDHC Waste Water Guideline, which defines a single, unified expectation concerning waste water discharge quality that goes beyond regulatory compliance, not only for the conventional waste water parameters, but also for hazardous chemicals.

The guideline was built upon the ZDHC Manufacturing Restricted Substances List (MRSL) – a list of chemical substances banned from intentional used in facilities that process textile materials and trim parts for the textile and footwear industry.

FINDINGS

MRSL parameters in water samples

Substance	Company	Concentration [µg/L]	Comments
1,4-Dichlorobenzene	Factory I, Turkey	0.11	Only in raw wastewater; not in discharged wastewater
Methylene chloride	Factory I, Turkey	1.3 to 3	1.3 µg/L in freshwater; 1.4 µg/L in raw wastewater; 3 µg/L in discharged wastewater
PFOA	Factory I, Turkey	0.01 to 0.16	0.01 µg/L in raw wastewater; 0.16 µg/L in discharged wastewater
DEHP	Factory I, Turkey	1.3	Only in raw wastewater; not in discharged wastewater
Monobutyltin	Factory I, Bangladesh	0.76	Only in raw wastewater; not in discharged wastewater
Nonylphenol	Factory II, China	14.6	Only in raw wastewater; not in discharged wastewater
Dibutylphthalate	Factory II, China	14.2	Only in raw wastewater; not in discharged wastewater
Mono- and Dichlorotoluene	Factory III, China	0.3 to 4.5	Detected in raw and discharged wastewater. Higher concentration in discharged wastewater?
PFASs	Factory IV, China	0.04 (PFOA)	Only in raw wastewater; not in discharged wastewater

Investigated companies and findings

The findings show that a root cause analysis is difficult for a company managing several tons of chemicals and textiles. Nevertheless G-Star is currently following up with these suppliers and encourages them to set up a Corrective and Preventive Action Plan (CAP) and to further optimize their input stream management.

In the specific case Factory I, Turkey and the findings of Methylene chloride in freshwater G-Star is following up in a separate action plan. Investigations are ongoing why this substance in found in the freshwater which is provided to them by the community.

A root cause investigation is also requested for the other MRSL substances factories found in the factories in Bangladesh and China.

MRSL parameters in sludge samples

Substance	Company	Concentration [mg/L]	Comments
Azoamine (4-Methyl-m-phenlenediamine)	Factory III, Division II, Bangladesh	0.4	-
APEO (Nonylphenol)	Factory III, China	0.3	-

Investigated companies and findings

The findings refer to sludge for which the reporting limit is in ppm range, while the waste water reporting is based on a reporting limit of ppb. Sludge was tested by G-Star as it can be used as an indicator for the existence/absence of a substance at the site and allows gathering insights on hazardous substances in longer time period.
Azoamine and APEO (Nonylphenol) was found which could potentially be caused by the dyestuff/surfactant used for the textile production. However it is not excluded that Nonylphenol contamination could be caused by other chemical formulations used like facility cleaning products.

G-Star is currently investigating together with both suppliers on the possible root cause. Actions which are requested contain specifications of all chemicals used (not approved by third parties), specifications for raw materials and ask for APEO-free raw textiles, definition of purchase specifications also for cleaning agents and other non-textile chemicals.

CONCLUSION

Striving for aspirational limits for the sum parameters shall be done considering the economical and holistic ecological background. Usage of huge amounts of precipitating agents or energy to keep aspirational limits should be avoided. Above progressive levels water recycling shall be the ultimate goal.

MRSL substances could be detected but only in a few cases and in very low concentrations. However G-Star is following up with the suppliers individually in order to work on the root cause of these failures.

FOLLOW-UP ACTIONS

G-Star uses these Waste Water results as their baseline study, our learning from this study is that we need to gain a better insight on the individual processes, waste water treatment system and water consumption in order to conduct a better evaluation.

The following additional information will be requested in order to evaluate and rate the data.

- Description of the main processes and machinery
- Number of employees
- Total production volume of the company in metric tons on an annual basis
- Total amount of fresh water consumption of the company on an annual and monthly basis
- Total waste water volume of the company on an annual and monthly basis.
- Specific fresh water consumption (L/kg textile)
- Specific waste water volume (L/kg textile)
- Chemical consumption (total and specific volume)
- Total and specific energy consumption based on annual statistics (kWh; kWh/kg textile)
- Flowchart/description of on-site waste water treatment plant
- Quantity and type of chemicals used for waste water treatment
- Description of waste water decolourisation process
- Name of receiving water body (river, lake, sea)
- Copy of discharge permit and legal limits in manufacturing country
- In case of indirect discharge; name and address of third party waste water treatment plant

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APPENDIX I

WASTE WATER TEST RESULTS

SUMMARY OF ANALYTES

MRSL parameters (11 priorities chemicals and beyond)

Chlorobenzenes and Chlorotoluenes					
	CAS-No.	Detection Limit (µg/L)		CAS-No.	Detection Limit (µg/L)
Chlorobenzene	108-90-7	5	4-Chlorotoluene	106-43-4	5
Dichlorobenzene	various		2,3-Dichlorotoluene	32768-54-0	
1,2-Dichlorobenzene	90-50-1		2,4-Dichlorotoluene	95-73-8	
1,3-Dichlorobenzene	541-73-1		2,5-Dichlorotoluene	19398-61-9	
1,4-Dichlorobenzene	106-46-7		2,6-Dichlorotoluene	118-69-4	
Trichlorobenzene	various		3,4-Dichlorotoluene	95-75-0	
1,2,3-Trichlorobenzene	106-46-7		3,5-Dichlorotoluene	25186-47-4	
1,2,4-Trichlorobenzene	87-61-3		2,3,4-Trichlorotoluene	7359-72-0	
1,3,5-Trichlorobenzene	120-82-1		2,3,6-Trichlorotoluene	2077-46-5	
Tetrachlorobenzene	various		2,4,5-Trichlorotoluene	6639-30-1	
1,2,3,4-Tetrachlorobenzene	634-66-2		2,4,6-Trichlorotoluene	23749-65-7	
1,2,3,5-Tetraclorobenzene	634-90-2		3,4,5-Trichlorotoluene	24172-86-8	
1,2,4,5-Tetrachlorobenzene	95-94-3		2,3,4,5-Tetrachlorotoluene	76057-12-0	
Pentachlorobenzene	608-93-5		2,3,5,6-Tetrachlorotoluene	29733-70-8	
Hexachlorobenzene	1198-74-1		2,3,4,6-Tetrachlorotoluene	875-40-1	
2-Chlorotoluene	95-49-8		Pentachlorotoluene	877-11-2	
3-Chlorotoluene	108-41-8		-	-	

Halogenated Solvents					
	CAS-No.	Detection Limit (µg/L)		CAS-No.	Detection Limit (µg/L)
1,2-Dichloroethane	107-06-2	1	Trichloroethylene	79-01-6	1
Methylene Chloride	75-09-2		Tetrachloroethylene	127-18-4	

Perfluorinated and Polyfluorinated Chemicals					
	CAS-No.	Detection Limit (µg/L)		CAS-No.	Detection Limit (µg/L)
Perfluorooctanesulfonic acid (PFOS)	355-46-4; 432-50-7	0.01	8:2 FTOH	678-39-7	1
Perfluoro-n-octanoic acid (PFOA)	355-67-1; 355-95-5		6:2 FTOH	647-42-7	
Perfluorobutanesulfonic acid (PFBS)	29420-49-3; 29420-43-3		-	-	
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4		-	-	

Phthalates					
	CAS-No.	Detection Limit (µg/L)		CAS-No.	Detection Limit (µg/L)
Di-2-ethylhexyl phthalate (DEHP)	117-81-7	10	Dinonyl phthalate (DNP)	84-76-4	10
Dimethoxyethyl phthalate (DMEP)	117-82-8		Diethyl phthalate (DEP)	84-66-2	
Di-n-octyl phthalate (DNOP)	117-84-0		Di-n-propyl phthalate (DPRP)	131-16-8	
Di-iso-decyl phthalate (DIDP)	26761-40-0		Di-iso-butyl phthalate (DIBP)	84-69-5	
Di-iso-nonyl phthalate (DINP)	28553-12-0		Di-cyclohexyl phthalate (DCHP)	84-61-7	
Di-n-hexyl phthalate (DnHP)	84-75-3		Di-iso-octyl phthalate (DIOP)	27554-26-3	
Dibutyl phthalate (DBP)	84-74-2		1,2-benzenedicarboxylic acid, di-C7-11-branched and linearalkyl esters (DHNUP)	68515-42-4	
Butyl benzyl phthalate (BBP)	85-68-7		1,2-benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	

Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers					
	CAS-No.	Detection Limit (µg/L)		CAS-No.	Detection Limit (µg/L)
Octylphenol OP, mixed isomers	various (incl. 140-66-9; 1806-26-4; 27193-28-8)	5	Nonylphenol Ethoxylates OPEO (2-16)	varoius (incl. 9002-93-1; 9036-19-5; 68987-90-6)	5
Nonylphenol NP	various (incl. 104-40-5; 11066-49-2; 25154-52-3; 84852-15-3)		Nonylphenol Ethoxylates NPEO (2-18)	various (incl. 9016-45-9; 26027-38-3; 37205-87-1; 68412-54-4; 127087-87-0)	

Chlorophenols					
	CAS-No.	Detection Limit (µg/L)		CAS-No.	Detection Limit (µg/L)
2-Chlorophenol	95-57-8	0.5	2,3,5-Trichlorophenol	933-78-8	0.5
3-Chlorophenol	108-43-0		2,3,6-Trichlorophenol	933-75-5	
4-Chlorophenol	106-48-9		2,4,5-Trichlorophenol	95-95-4	
2,3-Dichlorophenol	576-24-9		2,4,6-Trichlorophenol	88-06-2	
2,4-Dichlorophenol	120-83-2		3,4,5-Trichlorophenol	609-19-8	
2,5-Dichlorophenol	583-78-8		2,3,4,5-Tetrachlorophenol	4901-51-3	
2,6-Dichlorophenol	87-65-0		2,3,4,6-Tetrachlorophenol	58-90-2	
3,4-Dichlorophenol	95-77-2		2,3,5,6-Tetrachlorophenol	935-95-5	
3,5-Dichlorophenol	591-35-5		Pentachlorophenol (PCP)	87-86-5	
2,3,4-Trichlorophenol	15950-66-0		Tetrachlorophenol (TeCP)	various (incl. 25167-83-3)	

Dyes - Azo (Forming Restricted Amines)					
	CAS-No.	Detection Limit (µg/L)		CAS-No.	Detection Limit (µg/L)
4,4`-Methylene-bis-(2-chloro-aniline)	101-14-4	0.1	2,6-Xylidine	87-62-7	0.1
4,4'-methylenedianiline	101-77-9		o-Anisidine	90-04-0	
4,4`-Oxydianiline	101-80-4		2-Naphthylamine	91-59-8	
4-Chloroaniline	106-47-8		3,3`-Dichlorobenzidine	91-94-1	
3,3`-Dimethoxybenzidine	119-90-4		4-Aminodiphenyl	92-87-5	
3,3`-Dimethylbenzidine	119-93-7		Benzidine	92-87-5	
6-methoxy-m-toluidine (p-Cresidine)	120-71-8		o-Toluidine	95-53-4	
2,4,5-Trimethylaniline	137-17-7		2,4-Xylidine	95-68-1	
4,4`-Thiodianiline	139-65-1		4-Chloro-o-toluidine	95-69-2	
4-Aminoazobenzene	60-09-3		4-Methyl-m-phenylenediamine	95-80-7	
4-Methoxy-m-phenylenediamine	615-05-4		o-Aminoazotoluene	97-56-3	
4,4`-Methylene-di-o-toluidine	838-88-0		5-nitro-o-toluidine	99-55-8	

Flame Retardants					
	CAS-No.	Detection Limit (µg/L)		CAS-No.	Detection Limit (µg/L)
Tris(2-chloroethyl) phosphate (TCEP)	115-96-8	5	Polybromobiphenyls (PBBs)	59536-65-1	5
Decabromodiphenyl ether (DecaBDE)	1163-19-5		Tetrabromobisphenol A (TBBPA)	79-94-7	
Tris(2,3-dibromopropyl) phosphate (TRIS/TDBPP)	126-72-7		Hexabromocyclododecane (HBCDD)	3194-55-6	
Pentabromodiphenyl ether (PentaBDE)	32534-81-9		2,2-Bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0	
Octabromodiphenyl ether (OctaBDE)	32536-52-0		Tris(1,3-dichloro-isopropyl) phosphate (TDCP)	13674-87-8	
Bis(2,3-dibromopropyl) phosphate (BIS/BDBPP)	5412-25-9		Short chain chlorinated paraffins (SCCPs)	85535-84-8	
Tris(aziridinyl)-phosphineoxide (TEPA)	545-55-1		-	-	-

Dyes-Carcionogenic or Equivalent Concern					
	CAS-No.	Detection Limit (µg/L)		CAS-No.	Detection Limit (µg/L)
C.I. Direct Black 38	1937-37-7	500	C.I. Disperse Blue 3	2475-46-9	500
C.I. Direct Blue 6	26-02-46-2		C.I. Basic Blue 26 (withMichler's Ketone > 0.1%)	2580-56-5	
C.I. Acid Red 26	3761-53-3		C.I. Basic Green 4(malachite green chloride)	569-64-2	
C.I. Basic Red 9	569-61-9		C.I. Basic Green 4 (malachite green oxalate)	2437-29-8	
C.I. Direct Red 28	573-58-0		C.I. Basic Green 4(malachite green)	10309-95-2	
C.I. Basic Violet 14	632-99-5		Disperse Orange 11	82-28-0	
C.I. Disperse Blue 1	2475-45-8		-	-	-

Dyes-disperse (sensitizing)					
	CAS-No.	Detection Limit (µg/L)		CAS-No.	Detection Limit (µg/L)
Disperse Yellow 1	119-15-3	50	Disperse Red 17	3179-89-3	50
Disperse Blue 102	12222-97-8		Disperse Blue 7	3179-90-6	
Disperse Blue 106	12223-01-7		Disperse Blue 26	3860-63-7	
Disperse Yellow 39	12236-29-2		Disperse Yellow 49	54824-37-2	
Disperse Orange 37/59/76	13301-61-6		Disperse Blue 35	12222-75-2	
Disperse Brown 1	23355-64-8		Disperse Blue 124	61951-51-7	
Disperse Orange 1	2581-69-3		Disperse Yellow 9	6373-73-5	
Disperse Yellow 3	2832-40-8		Disperse Orange 3	730-40-5	
Disperse Red 11	2872-48-2		Disperse Blue 35	56524-77-7	
Disperse Red 1	2872-52-8		-	-	-

Glycols					
	CAS-No.	Detection Limit (µg/L)		CAS-No.	Detection Limit (µg/L)
Bis(2-methoxyethyl)-ether	111-96-6	50	2-methoxyethanol	109-86-4	50
2-ethoxyethanol	110-80-5		2-methoxyethylacetate	110-49-6	
2-ethoxyethyl acetate	111-15-9		2-methoxypropylacetate	70657-70-4	
Ethylene glycol dimethyl ether	110-71-4		Triethylene glycol dimethyl ether	112-49-2	

Organotin Compounds					
	CAS-No.	Detection Limit (µg/L)		CAS-No.	Detection Limit (µg/L)
Mono-, di- and tri-methyltin derivatives	various	0.01	Mono-, di- and tri-phenyltin derivatives	various	0.01
Mono-, di- and tri-butyltin derivatives	various		Mono-, di- and tri-octyltin derivatives	various	

Poly Aromatic Hydrocarbons (PAHs)					
	CAS-No.	Detection Limit (µg/L)		CAS-No.	Detection Limit (µg/L)
Benzo[a]pyrene (BaP)	50-32-8	1	Benzo[k]fluoranthene	207-08-9	1
Anthracene	120-12-7		Acenaphthylene	208-96-8	
Pyrene	129-00-0		Chrysene	218-01-9	
Benzo[ghi]perylene	191-24-2		Dibenz[a,h]anthracene	53-70-3	
Benzo[e]pyrene	192-97-2		Benzo[a]anthracene	56-55-3	
Indeno[1,2,3-cd]pyrene	193-39-5		Acenaphthene	83-32-9	
Benzo[j]fluoranthene	205-82-3		Phenanthrene	85-01-8	
Benzo[b]fluoranthene	205-99-2		Fluorene	86-73-7	
Fluoranthene	206-44-0		Naphthalene	91-20-3	

Volatile Organic Compound (VOCs)					
	CAS-No.	Detection Limit (µg/L)		CAS-No.	Detection Limit (µg/L)
o-cresol	95-48-7	1	Benzene	71-73-2	1
p-cresol	106-44-5		Xylene	1330-20-7	
m-cresol	108-39-4		-	-	-

Conventional Parameters

Heavy Metals				
		Limits in mg/L		
	CAS-No.	Foundational	Progressive	Aspirational
Antimony(Sb)	7440-36-0	0.1	0.05	0.01
Chromium(Cr), total	7440-47-3	0.2	0.1	0.05
Cobalt(Co)	7440-48-4	0.05	0.02	0.01
Copper(Cu)	7440-50-8	0.05	0.02	0.01
Nickel (Ni)	7440-02-0	0.2	0.1	0.05
Silver (Ag)	7440-22-4	0.1	0.05	0.005
Zinc(Zn)	7440-66-6	5	1	0.5
Arsenic (As)	7440-38-2	0.05	0.01	0.005
Cadmium(Cd)	7440-43-9	0.1	0.05	0.01
Lead(Pb)	7439-92-1	0.1	0.05	0.01
Mercury (Hg)	7439-97-6	0.01	0.005	0.001
Chromium VI(CrVI)	18540-29-9	0.05	0.005	0.001
Cyanide(CN-)	various (incl. 57-12-5)	0.2	0.1	0.05

Conventional Parameters			
	Limits mg/l		
	Foundational	Progressive	Aspirational
Temperature °C	Δ 15/ max. 35	Δ 10 or 30	Δ 5 or 25
TSS	50	15	5
COD	150	50	40
Total-N	20	10	5
pH	6-9		
Color [m-1] (436nm; 525nm; 620nm)	7; 5; 3	5; 3; 2	2; 1; 1
BOD5	30	15	5
Ammonium-N	10	1	0.5
Total-P	3	0.5	0.1
AoX	5	1	0.1
Oil and Grease	10	2	0.5
Phenol	10	2	0.5
Coliform(bacteria/100ml)	400	100	25
Persistent Foam	not visible		
ANIONS Sulfide	0.5	0.05	0.01
ANIONS Sulfite	2	0.5	0.2