

**BURBERRY**  
LONDON ENGLAND

**EFFLUENT TESTING TREND ANALYSIS  
SEPTEMBER 2022**

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## EXECUTIVE SUMMARY

Building on Burberry's commitment to become Climate Positive by 2040, our biodiversity strategy supports global conservation efforts to protect, restore and regenerate nature. As an active member of the ZDHC Foundation, Burberry contributes to driving industry-wide change to eliminate the use of unwanted chemicals and their release to the environment, supporting our efforts to protect nature avoiding negative impacts emerging across our supply chain.

This report discloses the results of wastewater testing performed by Burberry partners in the testing cycles of October 2021 and April 2022 and compares the trends against previous rounds of testing, demonstrating progressive adherence to the requirements of the *Zero Discharge of Hazardous Chemicals Wastewater Guidelines* (ZDHC WWG)<sup>1</sup>.

Since Burberry began implementing ZDHC WWG in 2017, the share of facilities in Burberry's supply chain that engaged in the programme followed an increasing trend overall, despite the downward peak caused by the pandemic in 2020.

In the October 2021 and April 2022 testing rounds, Burberry's supply chain achieved 99.5% adherence to the ZDHC WWG for the MRSL parameters, 95% of conventional parameters reached Foundational level or better, with 98% of adherence for metals and anions<sup>2</sup>.

## INTRODUCTION

In 2014, Burberry committed to eliminating chemicals of concern from production<sup>3</sup> by taking an input-management approach, and adopting the *Zero Discharge Hazardous Chemicals Manufacturing Restricted Substances List* (MRSL) with an addendum of long chain and short chain perfluorinated and polyfluorinated chemicals (PFCs)<sup>4</sup>. Wastewater testing is crucial in monitoring the potential use of these unwanted substances in the production processes associated with Burberry products. We ask Burberry supply chain partners to implement the ZDHC WWG, comprising testing twice a year (before end of April and October) at a ZDHC accredited laboratory. The results must be disclosed on the *ZDHC Gateway – Wastewater Module*<sup>5</sup>, a web-based library to share verified data on wastewater and sludge. By going beyond the required international and local environmental and safety standards, wastewater testing promotes continuous improvement in the overall industry wastewater quality.

Burberry's raw material suppliers<sup>6</sup> and finished goods vendors<sup>7</sup> are requested to engage their wet processing partners. The figures reported in this document only account for the results that have been updated and disclosed on the *ZDHC Gateway - Wastewater Module*, to reflect Burberry's commitment to supporting a unified standard for wastewater testing, as well as to promote transparency.

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<sup>1</sup> [ZDHC Wastewater Guidelines V.1.1](#)

<sup>2</sup> MRSL adherence is analysed for all manufacturing facilities. whereas Conventional parameters, including metals and anions is only applicable to textile manufacturing facilities with DIRECT discharge during the period under study.

<sup>3</sup> [Burberry Commitment on Chemical Management in Manufacturing](#)

<sup>4</sup> [Burberry MRSL](#)

<sup>5</sup> [ZDHC Gateway – Wastewater Module](#)

<sup>6</sup> Any company that supplies goods or services to Burberry PLC directly or indirectly. This includes but is not limited to printing, weaving, knitting, dyeing, processing, etc.

<sup>7</sup> Any company that supplies Burberry with finished goods

Burberry assesses partners' chemical management practices, including the implementation of effluent testing in line with ZDHC WWG, , as per *ZDHC Suppliers to Zero Programme requirements*. In addition to that, Burberry set annual internal target on ZDHC WWG implementation and adherence to MRSL parameters in the supply chain. Burberry partners who do not meet the ZDHC WWG limits for MRSL or conventional parameters are required to perform a Root-Cause-Analysis, put in place a Corrective Action Plan and share the findings with Burberry.

This document focuses on results that were sampled in October 2021 and April 2022<sup>8</sup>.

The purpose of this document is also to compare the latest results with the data gathered since the launch of the ZDHC WWG in October 2017, enabling analysis of trends over time to identify the key improvement areas.

The complete testing data, along with Burberry's own testing program launched in 2014, is publicly available on [our Policies and Commitments page](#).

## **METHODOLOGY**

Wastewater tests are performed according to *ZDHC WWG* methodology against the parameters in Appendix 1. Therefore, sampling and reporting activities have been carried out by ZDHC Accepted Laboratories.

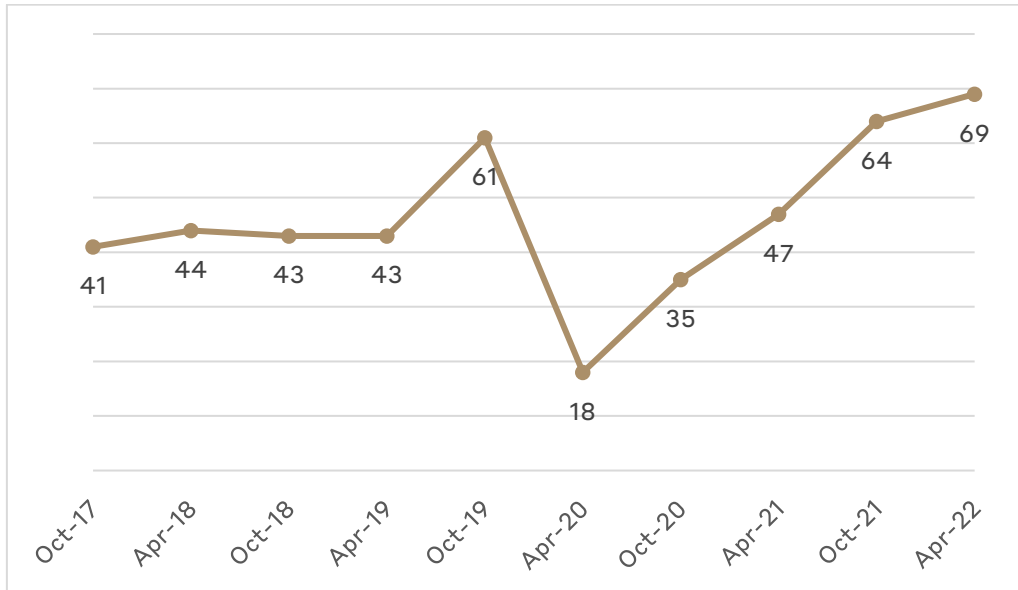
## **TREND ANALYSIS**

### **Data Overview**

In 2021, 64 facilities participated in the October effluent testing round and 69 participated in the April 2022 round (Figure 1). These test reports have been uploaded and disclosed on *ZDHC Gateway-Wastewater Module, in line with the ZDHC WWG*.

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<sup>8</sup> All tests performed and disclosed on ZDHC Gateway from the 1<sup>st</sup> of May 2021 to the 31<sup>st</sup> of October 2021 are included in October 2021 testing round, whereas the tests performed and disclosed from the 1<sup>st</sup> November 2021 to the 30<sup>th</sup> April 2022 are included in April 2022 testing round



**Figure 1: Number of facilities disclosing effluent test reports on ZDHC Gateway – Wastewater Module**

Since the launch of the ZDHC effluent testing programme in 2017, the broadest participation of Burberry partners was seen in April 22, with 69 test reports published on the ZDHC Gateway. This was achieved due to more brands requiring their supply chains to perform wastewater testing under unified ZDHC Guidelines, as well as Burberry partners cascading the request (as solicited by the Supplier to Zero Programme), and therefore involving an increasing number of facilities each year.

Despite the general increasing trend, the beginning of 2020 registered a downward peak in the number of facilities participating to effluent testing, mainly related to the outbreak of the pandemic. Effluent testing was hindered by a number of factors including factory closures, restrictions on traveling and on-site visits that limited the sampling activities of the laboratories, reduced factory activities and thus insufficient effluent streams, and restrictions in financing effluent testing.

57.5% of Burberry products<sup>9</sup> were processed at facilities that participated in the ZDHC effluent testing programme in October 21 and April 22 respectively.

Since the start of the effluent testing programme in 2017, Burberry encouraged tanneries to participate in the effluent testing programme, even though the ZDHC WWG would not be applicable to the sector until October 2021 testing round, following the publication of the *ZDHC Leather Wastewater Guidelines Addendum*<sup>10</sup> in January 2021. Since then, all tanneries in Burberry supply chain are required to test their effluents, as per ZDHC Supplier to Zero programme. Therefore, unlike in previous reports, leather effluents have also been included in the analysis. Participation by type of facility, whether textile or leather, and whether direct or indirect discharge, can be observed in Table 1.

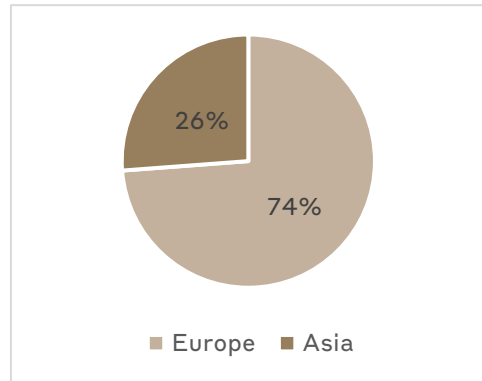
In the two rounds of testing under consideration, 74% of the facilities participating were in Europe, while 26% were in Asia (Figure 2).

<sup>9</sup> The % of product delivered by each Direct Raw Material Supplier is equally distributed among its wet processors.

<sup>10</sup> ZDHC Leather Wastewater Guidelines Addendum

	Oct-21	April-22
Textile - Direct <sup>11</sup>	7	8
Leather - Direct	0	0
Textile - Indirect <sup>12</sup>	51	58
Leather - Indirect	6	3
<b>TOTAL</b>	<b>64</b>	<b>69</b>

**Table 1: Number of facilities participating in October 2021 and April 2022 wastewater testing rounds**

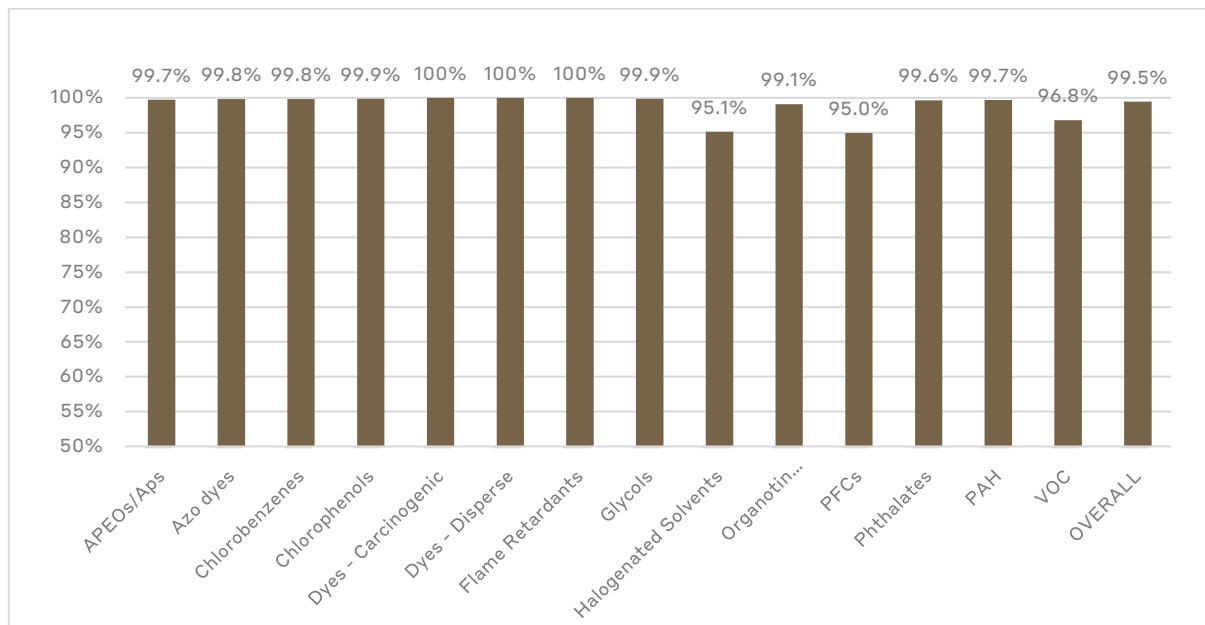


**Figure 2: Number of facilities participating in Oct 21 and April 22 wastewater testing rounds**

### ZDHC MRSL parameters

In order to understand how Burberry's supply chain performs against ZDHC Wastewater Guidelines, a summary of all test reports for participating facilities is presented below.

As indicated in Figure 3, Burberry's supply chain achieved 99.5% of adherence to the MRSL in these two rounds (October 2021 and April 2022), considering the 34051 analytes tested overall.



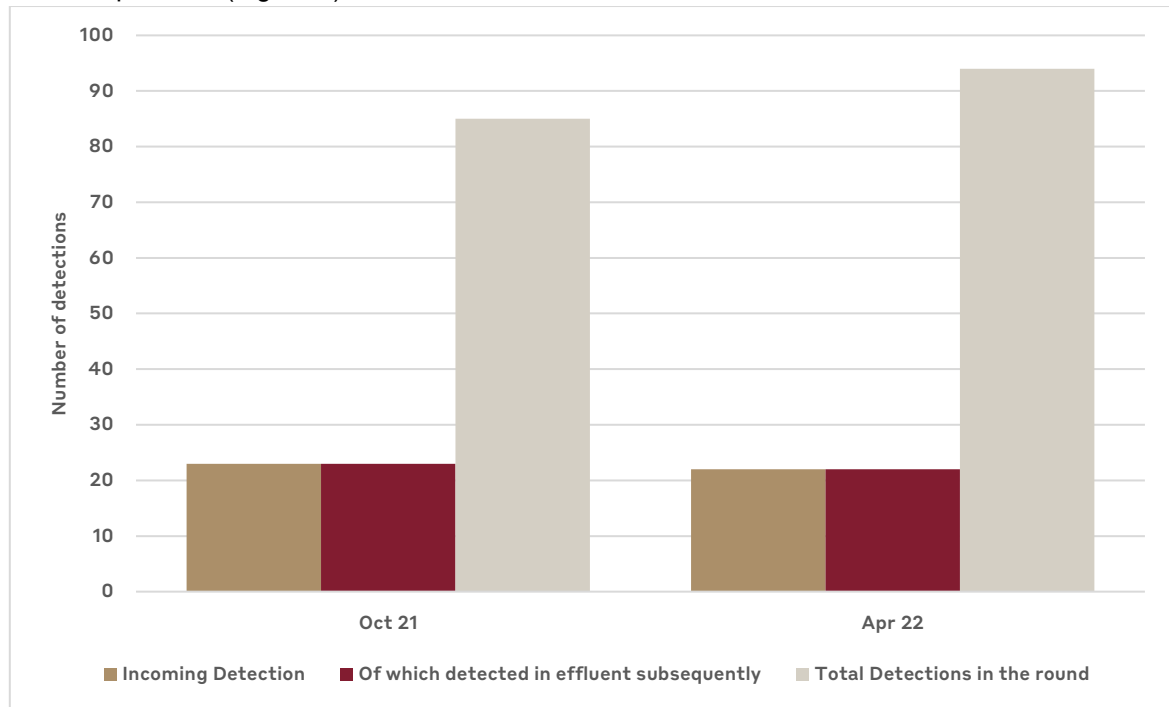
**Figure 3: % of adherence to ZDHC MRSL limits per chemical group in October 2021 and April 2022 rounds of testing**

<sup>11</sup> Reference: Glossary, definition of direct and indirect facility.

No traces of Carcinogenic Dyes, Disperse Dyes, or Flame Retardants have been found in wastewater in the period. Similarly, Azo Dyes, Chlorobenzenes, Chlorophenols and Glycols detections have been found to be marginal. Other chemical groups with decreasing detections rates include APEO/AP and Phthalates, which had a 99.7% and 99.6% level of adherence to the MRSL respectively increasing from a 91% and 93% in 2017. Furthermore, this is an improvement compared to our previous reporting period (April 2020 - October 2020 - April 2021), particularly in the case of APEO/AP which was 98.1%. Overall, wastewater test results reached 99.5% conformity to the MRSL in October 2021 and April 2022.

Burberry encourages its partners to test incoming water when MRSL parameters are detected in discharged or raw wastewater, as this may indicate a possible issue of freshwater contamination in certain areas where Burberry’s supply chain operates and can inform Root Cause Analysis. Detections in incoming water over this period were found on 45 occasions (at 25 facilities), 43 of which were in Italy (at 23 facilities). The detection of some chemicals such as PFCs and Halogenated Solvents are frequent in incoming water and they were detected respectively in 49% and 53% of all the period’s effluent non-conformities for these chemical groups, suggesting a potential link. Phthalates is other chemical group detected in incoming water that also have subsequent non-conformities in effluent. From all the detections in each of these chemical groups for the period, around one forth were also observed at incoming streams.

Both in October 2021 and April 2022, 100% of detections in incoming water were subsequently also observed in wastewater. This represented 27% of the total non-conformities in October 2021 and 23% in April 2022 (Figure 4).



**Figure 4: Number of detections at incoming water, which subsequently could have led to detections in effluent, compared to total detections in October 2021 and April 2022**

## Conventional Parameters

Conventional parameter limits are particularly important when considering Direct Discharge facilities (i.e. facilities with complete wastewater treatment on-site and discharging into water bodies). In the case of indirect discharge facilities (facilities which discharge to a centralised ETP), conventional parameters are tested to ensure legal compliance to their permit to discharge and to promote continuous improvement. Therefore, only direct discharge facilities are assessed against the Foundational, Progressive and Aspirational levels set by the ZDHC Wastewater Guidelines for this type of facility.

This three-level approach (*Foundational*, *Progressive* and *Aspirational* limits) aims to encourage facilities to improve their wastewater quality beyond legal requirements.

Across the two rounds of testing (October 2021 and April 2022), 74% of the analytes tested by direct discharge facilities achieved the Aspirational level, 11% the Progressive level and 9% the Foundational level. Overall, 95% of the analytes met ZDHC Wastewater requirements. On the other hand, 23 conventional parameters were found to have levels above the limit, representing 5% of the analytes tested. As shown in Figure 5, the number of parameters exceeding Foundation level increased from 2% October 2021 to 8% in April 2022. This increase was due to Coliforms, BOD5, Colour, Total Nitrogen, Total Phosphorous and three heavy metals in April 2022 round. This data includes all conventional parameters, including metals and anions (a breakdown of these groups by parameter is presented in Figure 6 and 7).

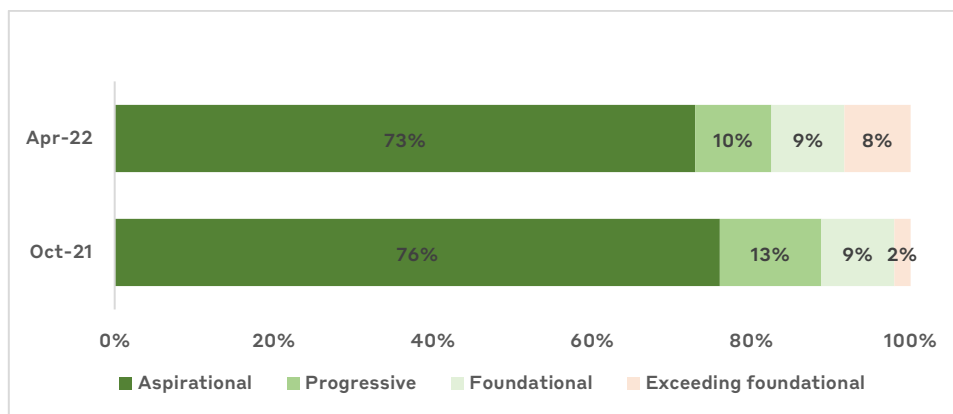
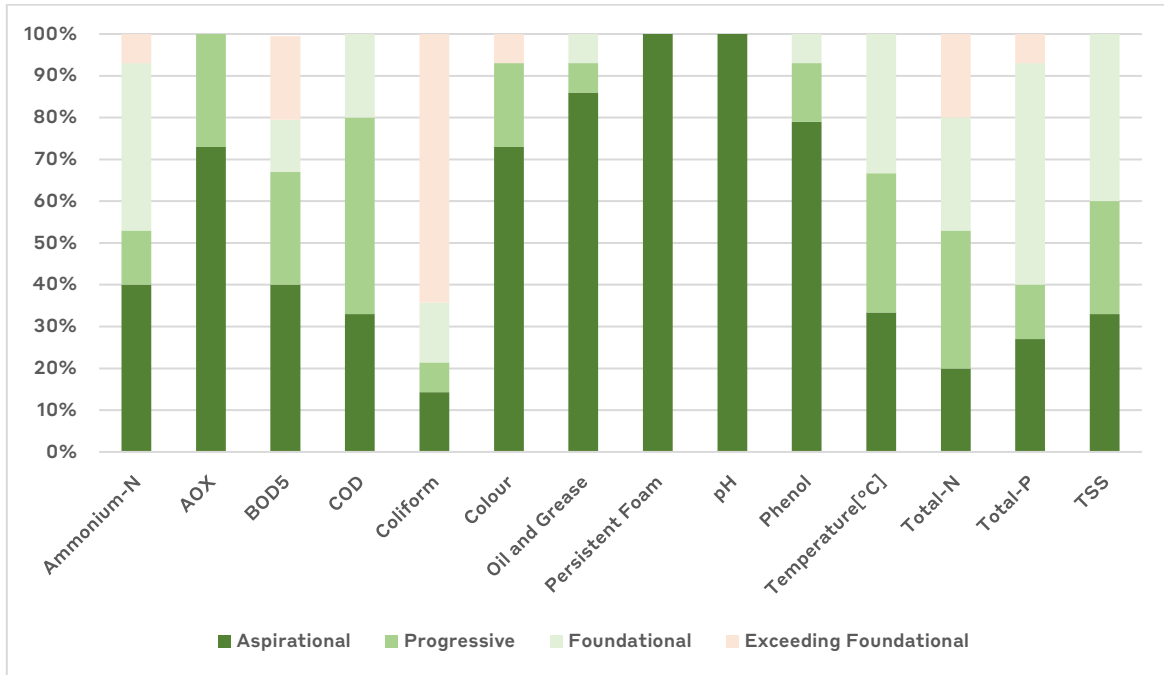


Figure 5: Conformity of Conventional parameters to WWG limits in October 2021 and April 2022 - direct discharge facilities

### Conventional parameters – excluding metals and anions

The most common parameters exceeding *Foundational* limit were coliforms. Other detections were observed for Ammonium, BOD5, Colour, Total-N and Total-P. Figure 6 further details the quality levels achieved per analyte for direct discharge facilities.

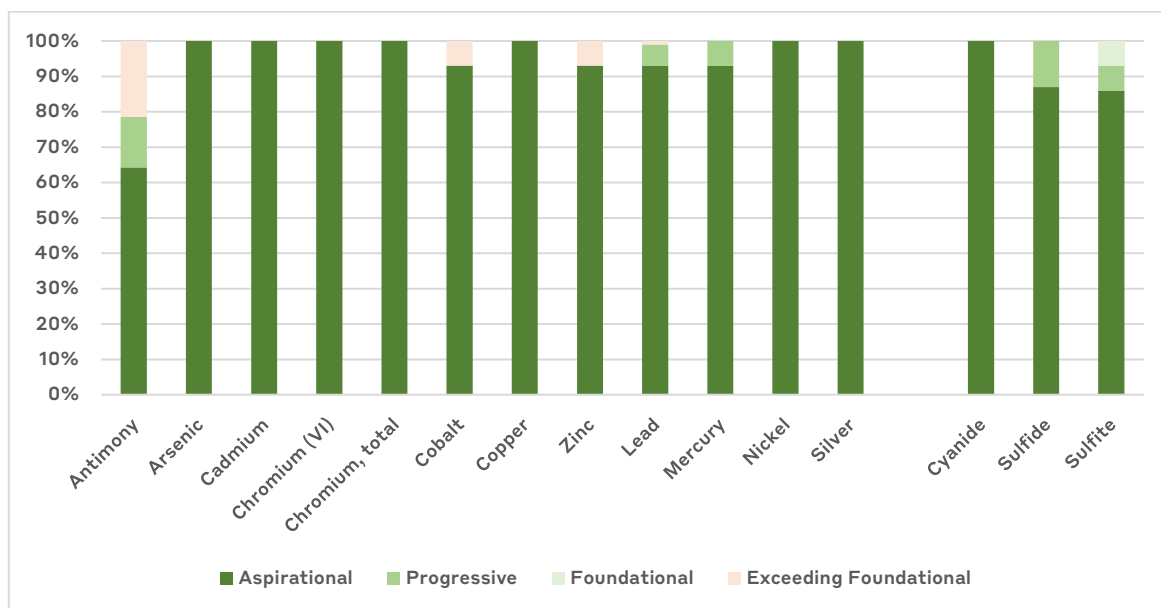




*Figure 6: Conformity level of Conventional parameters to WWG limits in October 2021 and April 2022 - direct discharge facilities*

### Heavy Metals & Anions

The same analysis was performed on heavy metals and anions. Across October 2021 and April 2022 rounds, direct discharge facilities achieved 98% adherence to the ZDHC WWG. This is an improvement compared to last three rounds of testing in April 2020, October 2020 and April 2021 (95%), demonstrating that effective actions were undertaken by wet processors to address non-conformities. Over the two rounds, 100% of anion parameters reached at least the Foundational level and 5 out of 179 metal parameters tested were found to be exceeding the Foundational limit.



*Figure 7: Heavy metals and anions conformance levels in October 2021 and April 2022 – direct discharge facilities*

## CONCLUSION

Burberry will continue to support adherence to the ZDHC WWG in its supply chain and recommends wastewater testing is performed twice a year. Root-Cause-Analysis activities are carried out to track and resolve non-conformities. Data is monitored to track supply chain engagement and to pinpoint improvement areas.

Detections related to MRLS parameters continue to decline, with non-detections exceeding 99% in all testing rounds. Overall, improved adherence to the guidelines observed demonstrate that chemical management is embedded in business practices.

Halogenated Solvents and PFCs have proven to be the most detected chemical groups in October 2021 and April 2022 rounds, followed by VOCs. In just over 50% of the instances when these two groups were detected, Halogenated Solvents and PFCs were also found to be present in incoming water, thus underlining contamination of the freshwater resources used by Burberry partners.

No traces of Cancerogenic Dyes, Disperse Dyes or Flame retardants related analytes have been detected.

Conventional parameters were 95% Foundation level or better, with 74% being Aspirational, the highest level in the ZDHC WWG. Amongst the conventional parameters, 98% of metals and anions met the minimum ZDHC WWG requirements.

Wastewater testing is an important tool in achieving Burberry's objective to eliminate unwanted chemicals from production, and therefore, targets on wastewater quality are periodically reviewed and tracked to ensure alignment with Burberry's long-term Responsibility Strategy<sup>12</sup>. Burberry

<sup>12</sup> Burberry Policies and Commitments

promotes wastewater testing under unified guidelines, as well as the disclosure of wastewater quality information through ZDHC tools.

There are several advantages that derive from the use of a harmonized system, in eliminating duplicative testing from wet processors, improving the sharing of information and aligning brands' requests to suppliers. Burberry continues to collaborate with ZDHC Foundation and industry peers to drive the change towards cleaner production.

## **NEXT STEPS**

Burberry will continue to drive improvement in wastewater testing participation as well as in adherence to the ZDHC WWG throughout its supply chain. Starting from April 2023 Burberry will implement ZDHC WWG 2.0, in alignment with ZDHC..

To do so, Burberry will continue disseminating learning resources in collaboration with ZDHC and third parties, as well as promoting training organised by ZDHC and partners. Burberry will also continue to support partners in performing Root-Cause-Analysis, thus encouraging the supply chain to analyse test results and plan corrective actions when needed.

Burberry will continue to increase its efforts in supporting and ensuring the participation of its leather supply chain in upcoming effluent testing rounds, following the recently released *ZDHC Leather Wastewater Guidelines Addendum*.

Burberry understands the importance of preserving water resources and delivering a water-responsible product. Going beyond the value chain, Burberry advocates for change across the fashion industry. As part of this, Burberry supports the WWF's open letter calling for businesses to ensure that sustainability remains front of mind after the pandemic, focusing on environmental impacts as a result of water consumption and pollution.

Burberry will continue to work closely with our supply chain partners, cultivating a culture of openness and transparency to understand and monitor water impacts at the manufacturing stage of the value chain through the Water Conservation programme launched in 2020, along with ZDHC initiatives.

Burberry will continue to ensure that water initiatives are embedded in the objectives and strategies at the highest level of the business, setting clear responsibilities for all teams linked to water management, such as supply chain management and raw materials sourcing.

Burberry will continue to communicate progress on Burberry Plc website and in the Annual Report, as well as through independent reports including CDP Water.

## GLOSSARY

- **CETP:** Centralized Effluent Treatment Plant.
- **Direct Discharge:** A point source that discharges waste water to streams, lakes, or oceans. Municipal and industrial facilities that induce pollution through a defined conveyance or system such as outlet pipes are direct dischargers;
- **ETP:** Effluent Treatment Plant.
- **Indirect Discharge:** The discharge of wastewater to a treatment facility not owned and operated by the facility discharging the pollutants, for example a municipal wastewater treatment plant or industrial treatment park;
- **Incoming Water (IW):** Water that is supplied to a manufacturing process, usually withdrawn from surface water bodies, groundwater or collected from rainfall. This includes water supplied by municipalities and condensate from external sources of process stream;
- **Raw Waste Water (Raw WW):** Wastewater that has not yet been treated prior to direct or indirect discharge from the facility, or prior to water recycling efforts;
- **Pre-treated Waste Water (Pre-treated WW):** Wastewater that has been pre-treated prior to indirect discharge from the facility to a CETP.
- **Treated Waste Water (Treated WW):** Wastewater that has been fully treated with an on-site ETP, prior to the direct discharge to the environment;
- **Wet process facility:** facility responsible of carrying out an aqueous stage in its production process.

# APPENDIX 1

Tables below report parameters tested, their reporting limits, and the test method applied.

Table 1A: Sum Parameters and Anions

The conventional parameters showing foundational, progressive and aspirational limits, and the standard methods for analysis.

\* Δ is the degree above ambient temperature of receiving water body.

\*\* Validated cuvette methods can be used alternatively.

mg/L unless otherwise noted	Limits			Standard Method for Analysis/Testing			
	Foundational	Progressive	Aspirational	ISO	European Union	United States	China
<b>Sum parameters</b>							
Temperature [°C] *	Δ15 or max. 35	Δ10 or max. 30	Δ5 or max. 25	No standard	No standard	US EPA 17.01	GB/T 13195
TSS	50	15	5	ISO 11923	ISO 11923	US EPA 160.2, APHA 2540D	GB/T 11901
COD	150	80	40	ISO 6060**	ISO 6060**	US EPA 410.4, APHA 5220D**	GB/T 11914**
Total-N	20	10	5	ISO 5663, ISO 29441	ISO 5663, ISO 29441	US EPA 351.2, APHA 4500P-J, APHA 4500N-C	HJ 636, GB 11891
pH	6-9			ISO 10523	EN ISO 10523	US EPA 150.1	GB/T 6920
Colour [m <sup>-1</sup> ] (436nm; 525; 620nm)	7; 5; 3	5; 3; 2	2; 1; 1	ISO 7887-B	-	-	-
BOD <sub>5</sub>	30	15	5	ISO 5815-1, -2 (5 days)	EN 1899-1 (5days)	US EPA 405.1 (5 days), APHA 5210B (5 days)	HJ 505
Ammonium-N	10	1	0.5	ISO 11732, ISO 7150	EN ISO 11732	US EPA 350.1, APHA 4500 NH <sub>4</sub> -N	HJ 535, HJ 536
Total-P	3	0.5	0.1	ISO 11885, ISO 6878	EN ISO 11885	US EPA 365.4, APHA 4500P-J	GB/T 11893
AOX	5	1	0.1	ISO 9562	EN ISO 9563	US EPA 1650	HJ/T 83-2001
Oil and Grease	10	2	0.5	ISO 9377-2	EN ISO 9377-2	US EPA 1664	HJ 637
Phenol	0.5	0.01	0.001	ISO 14402	EN ISO 14402	APHA 5530 B, C&D	HJ 503
Coliform [bacteria/100 ml]	400	100	25	ISO 9308-1	EN ISO 9308-1	US EPA 9132	GB/T 5750.12
Persistent Foam	Refer to respective information in section 9.6.A			N/A	N/A	N/A	N/A
<b>Anions</b>							
Cyanide - Total	0.2	0.1	0.05	ISO 6703-1-2,-3, ISO 14403-1-2	ISO 6703-1-2,-3, ISO 14403-1-2	US EPA 335.2, APHA 4500-CN	HJ 484
Sulfide	0.5	0.05	0.01	ISO 10530	ISO 10530	APHA 4500-S2-D	GB/T 16489
Sulfite	2	0.5	0.2	ISO 10304-3	EN ISO 10304-3	US EPA 3771	**

Table 1B: Metals

The conventional parameters showing foundational, progressive and aspirational limits, and the standard methods for analysis.

\*\*\* Data collection only for polyester production.

mg/L unless otherwise noted	Limits			Standard Method for Analysis/Testing			
	Foundational	Progressive	Aspirational	ISO	European Union	United States	China
<b>Metals</b>							
Antimony***	0.1	0.05	0.01	ISO 11885	EN ISO 11885	US EPA 200.7, US EPA 200.8, US EPA 6010c, US EPA 6020a	GB 7475, HJ 700
Chromium, total	0.2	0.1	0.05				GB 7466, HJ 700
Cobalt	0.05	0.02	0.01				HJ 700
Copper	1	0.5	0.25				GB 7475, HJ 700
Nickle	0.2	0.1	0.05				GB 11907, HJ 700
Silver	0.1	0.05	0.005				GB 11907, HJ 700
Zinc	5.0	1.0	0.5				GB 7472, GB 7475, HJ 700
Arsenic	0.05	0.01	0.005	ISO 11885	EN ISO 11885	US EPA 200.7, US EPA 200.8, US EPA 6010c, US EPA 6020a	GB 7475, HJ 700
Cadmium	0.1	0.05	0.01	ISO 11885	EN ISO 11885	US EPA 200.7, US EPA 200.8, US EPA 6010c, US EPA 6020a	GB 7475, HJ 700
Chromium (VI)	0.05	0.005	0.001	ISO 18412	EN ISO 18412	US EPA 218.6	GB 7467
Lead	0.1	0.05	0.01	ISO 11885	EN ISO 11885	US EPA 200.7, US EPA 200.8, US EPA 6010c, US EPA 6020a	GB 7475, HJ 700
Mercury	0.01	0.005	0.001	ISO 12846 or ISO 17852	EN ISO 18412 or ISO 17852	US EPA 200.7, US EPA 200.8, US EPA 6010c, US EPA 6020a	HJ 597

Table 2A:

Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): Including All Isomers

Substance or Substance Group	CAS	Reporting Limit (µg/L)	Standard Method for Analysis/Testing
Nonylphenol (NP), mixed isomers	104-40-5 11066-49-2 25154-52-3 84852-15-3	5	NP/OP: ISO 18857-2 (modified dichloromethane extraction) or ASTM D7065 (GC/MS or LC/MS(-MS)) OPEO/NPEO (n>2): ISO 18254-1 OPEO/NPEO (n=1,2): ISO 18857-2 or ASTM D7065
Octylphenol (OP), mixed isomers	140-66-9 1806-26-4 27193-28-8		
Octylphenol ethoxylates (OPEO)	9002-93-1 9036-19-5 68987-90-6		
Nonylphenol ethoxylates (NPEO)	9016-45-9 26027-38-3 37205-87-1 68412-54-4 127087-87-0		

Table 2B:

Chlorobenzenes and Chlorotoluenes

Substance or Substance Group	CAS	Reporting Limit (µg/L)	Standard Method for Analysis/Testing
Monochlorobenzene	108-90-7	0,2	USEPA 8260B, 8270D. Dichloro-methane extraction followed by GC/MS
1,2-Dichlorobenzene	95-50-1		
1,3-Dichlorobenzene	541-73-1		
1,4-Dichlorobenzene	106-46-7		
1,2,3-Trichlorobenzene	87-61-6		
1,2,4-Trichlorobenzene	120-82-1		
1,3,5-Trichlorobenzene	108-70-3		
1,2,3,4-Tetrachlorobenzene	634-66-2		
1,2,3,5-Tetrachlorobenzene	634-90-2		
1,2,4,5-Tetrachlorobenzene	95-94-3		
Pentachlorobenzene	608-93-5		
Hexachlorobenzene	118-74-1		
2-Chlorotoluene	95-49-8		
3-Chlorotoluene	108-41-8		
4-Chlorotoluene	106-43-4		
2,3-Dichlorotoluene	32768-54-0		
2,4-Dichlorotoluene	95-73-8		
2,5-Dichlorotoluene	19398-61-9		
2,6-Dichlorotoluene	118-69-4		
3,4-Dichlorotoluene	95-75-0		
3,5-Dichlorotoluene	25186-47-4		
2,3,4-Trichlorotoluene	7359-72-0		
2,3,6-Trichlorotoluene	2077-46-5		
2,4,5-Trichlorotoluene	6639-30-1		
2,4,6-Trichlorotoluene	23749-65-7		
3,4,5-Trichlorotoluene	21472-86-6		
2,3,4,5-Tetrachlorotoluene	76057-12-0		
2,3,5,6-Tetrachlorotoluene	29733-70-8		
2,3,4,6-Tetrachlorotoluene	875-40-1		
Pentachlorotoluene	877-11-2		

Table 2C:

Chlorophenols

Substance or Substance Group	CAS	Reporting Limit (µg/L)	Standard Method for Analysis/Testing
2-chlorophenol	95-57-8	0.5	USEPA 8270 D. Solvent extraction, derivatisation with KOH, acetic anhydride followed by GC/MS ISO 14154:2005
3-chlorophenol	108-43-0		
4-chlorophenol	106-48-9		
2,3-dichlorophenol	576-24-9		
2,4-dichlorophenol	120-83-2		
2,5-dichlorophenol	583-78-8		
2,6-dichlorophenol	87-65-0		
3,4-dichlorophenol	95-77-2		
3,5-dichlorophenol	591-35-5		
2,3,4-trichlorophenol	15950-66-0		
2,3,5-trichlorophenol	933-78-8		
2,3,6-trichlorophenol	933-75-5		
2,4,5-trichlorophenol	95-95-4		
2,4,6-trichlorophenol	88-06-2		
3,4,5-trichlorophenol	609-19-8		
2,3,4,5-tetrachlorophenol	4901-51-3		
2,3,4,6-tetrachlorophenol	58-90-2		
2,3,5,6-tetrachlorophenol	935-95-5		
Pentachlorophenol	87-86-5		

Table 2D:

Dyes - Azo (Forming Restricted Amines)

Substance or Substance Group	CAS	Reporting Limit (µg/L)	Standard Method for Analysis/Testing
4,4'-methylene-bis-(2-chloro-aniline)	101-14-4	0.1	EN 14362-1 EN 14362-3 Reduction step with sodium dithionite, solvent extraction, GC/MS or LC/MS
4,4'-methylenedianiline	101-77-9		
4,4'-oxydianiline	101-80-4		
4-chloroaniline	106-47-8		
3,3'-dimethoxybenzidine	119-90-4		
3,3'-dimethylbenzidine	119-93-7		
6-methoxy-m-toluidine	120-71-8		
2,4,5-trimethylaniline	137-17-7		
4,4'-thiodianiline	139-65-1		
4-aminoazobenzene	60-09-3		
4-methoxy-m-phenylenediamine	615-05-4		
4,4'-methylenedi-o-toluidine	838-88-0		
2,6-xylidine	87-62-7		
o-anisidine	90-04-0		
2-naphthylamine	91-59-8		
3,3'-dichlorobenzidine	91-94-1		
4-aminodiphenyl	92-67-1		
Benzidine	92-87-5		
o-toluidine	95-53-4		
2,4-xylidine	95-68-1		
4-chloro-o-toluidine	95-69-2		
4-methyl-m-phenylenediamine	95-80-7		
o-aminoazotoluene	97-56-3		
5-nitro-o-toluidine	99-55-8		

Table 2E:

Dyes - Carcinogenic or Equivalent Concern

Substance or Substance Group	CAS	Reporting Limit (µg/L)	Standard Method for Analysis/Testing
C.I. Direct Black 38	1937-37-7	500	Liquid extraction, LC/MS
C.I. Direct Blue 6	2602-46-2		
C.I. Acid Red 26	3761-53-3		
C.I. Basic Red 9	569-61-9		
C.I. Direct Red 28	573-58-0		
C.I. Basic Violet 14	832-99-5		
C.I. Disperse Blue 1	2475-45-8		
C.I. Disperse Blue 3	2475-46-9		
C.I. Basic Blue 26 (with Michler's Ketone > 0.1%)	2580-56-5		
C.I. Basic Green 4 (Malachite Green Chloride)	569-64-2		
C.I. Basic Green 4 (Malachite Green Oxalate)	2437-29-8		
C.I. Basic Green 4 (Malachite Green)	10309-95-2		
Disperse Orange 11	82-28-0		

Table 2F:

Dyes - Disperse (Sensitising)

Substance or Substance Group	CAS	Reporting Limit (µg/L)	Standard Method for Analysis/Testing
Disperse Yellow 1	119-15-3	50	Liquid extraction, LC/MS
Disperse Blue 102	12222-97-8		
Disperse Blue 106	12223-01-7		
Disperse Yellow 39	12236-29-2		
Disperse Orange 37/59/76	13301-61-6		
Disperse Brown 1	23355-64-8		
Disperse Orange 1	2581-69-3		
Disperse Yellow 3	2832-40-8		
Disperse Red 11	2872-48-2		
Disperse Red 1	2872-52-8		
Disperse Red 17	3179-89-3		
Disperse Blue 7	3179-90-6		
Disperse Blue 26	3860-63-7		
Disperse Yellow 49	54824-37-2		
Disperse Blue 35	12222-75-2		
Disperse Blue 124	61951-51-7		
Disperse Yellow 9	6373-73-5		
Disperse Orange 3	730-40-5		
Disperse Blue 35	66524-77-7		

Table 2G:

Flame Retardants

Substance or Substance Group	CAS	Reporting Limit (µg/L)	Standard Method for Analysis/Testing
Tris(2-chloroethyl)phosphate (TCEP)	115-96-8	5	US EPA 8270 ISO 22032, USEPA 527 and USEPA 8321B. Dichloro-methane extraction GC/MS or LC/MS (-MS)
Decabromodiphenyl ether (DecaBDE)	1163-19-5		
Tris(2,3,-dibromopropyl) phosphate (TRIS)	126-72-7		
Pentabromodiphenyl ether (PentaBDE)	32534-81-9		
Octabromodiphenyl ether (OctaBDE)	32536-52-0		
Bis(2,3-dibromopropyl) phosphate (BIS)	5412-25-9		
Tris(1-aziridinyl) phosphine oxide (TEPA)	545-55-1		
Polybromobiphenyls (PBB)	59536-65-1		
Tetrabromobisphenol A (TBBPA)	79-94-7		
Hexabromocyclododecane (HBCDD)	3194-55-6		
2,2-bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0		
Tris(1,3-dichloro-isopropyl) phosphate (TDCP)	13674-87-8		
Short-chain chlorinated Paraffins (SCCP) (C10-C13)	85535-84-8		

Table 2H:

Glycols

Substance or Substance Group	CAS	Reporting Limit (µg/L)	Standard Method for Analysis/Testing
Bis(2-methoxyethyl)-ether	111-96-6	50	US EPA 8270 Liquid extraction, LC/MS GC-MS
2-ethoxyethanol	110-80-5		
2-ethoxyethyl acetate	111-15-9		
Ethylene glycol dimethyl ether	110-71-4		
2-methoxyethanol	109-86-4		
2-methoxyethylacetate	110-49-6		
2-methoxypropylacetate	70657-70-4		
Triethylene glycol dimethyl ether	112-49-2		

Table 2I:

Halogenated Solvents

Substance or Substance Group	CAS	Reporting Limit (µg/L)	Standard Method for Analysis/Testing
1,2-dichloroethane	107-06-2	1	USEPA 8260B Headspace GC/MS or Purge-and-Trap-GC/MS
Methylene chloride	75-09-2		
Trichloroethylene	79-01-6		
Tetrachloroethylene	127-18-4		

**Table 2J:**  
Organotin Compounds

Substance or Substance Group	CAS	Reporting Limit (µg/L)	Standard Method for Analysis/ Testing
Mono-, di- and tri-methyltin derivatives	Multiple	0.01	ISO 17353
Mono-, di- and tri-butyltin derivatives	Multiple		Derivatisation with NaB(C <sub>2</sub> H <sub>5</sub> ) <sub>2</sub> GC/MS
Mono-, di- and tri-phenyltin derivatives	Multiple		
Mono-, di- and tri-octyltin derivatives	Multiple		

**Table 2K:**  
Perfluorinated and Polyfluorinated Chemicals (PFCs)

Substance or Substance Group	CAS	Reporting Limit (µg/L)	Standard Method for Analysis/ Testing
PFOS	1763-23-1	0.01	DIN 38407-42 (modified)
PFOA	335-67-1		
PFBS	375-73-5 29420-49-3 29420-43-3		Non-ionic PFC (FTOH): derivatisation with acetic anhydride followed by GC/MS
PFHxA	307-24-4		
8:2 FTOH	678-39-7	1	
6:2 FTOH	647-42-7		

**Table 2M:**  
Polycyclic Aromatic Hydrocarbons (PAHs)

Substance or Substance Group	CAS	Reporting Limit (µg/L)	Standard Method for Analysis/ Testing
Benzo[a]pyrene (BaP)	50-32-8	1	US EPA 8270 DIN 38407-39 Solvent extraction GC/MS
Anthracene	120-12-7		
Pyrene	129-00-0		
Benzo[ghi]perylene	191-24-2		
Benzo[e]pyrene	192-97-2		
Indeno[1,2,3-cd]pyrene	193-39-5		
Benzo[ <i>jj</i> ]fluoranthene	205-82-3		
Benzo[ <i>b</i> ]fluoranthene	205-99-2		
Fluoranthene	206-44-0		
Benzo[ <i>k</i> ]fluoranthene	207-08-9		
Acenaphthylene	208-96-8		
Chrysene	218-01-9		
Dibenz[ <i>a,h</i> ]anthracene	53-70-3		
Benzo[ <i>a</i> ]anthracene	56-55-3		
Acenaphthene	83-32-9		
Phenanthrene	85-01-8		
Fluorene	86-73-7		
Naphthalene	91-20-3		

**Table 2L:**  
Ortho-Phthalates - Including all ortho esters of phthalic acid

Substance or Substance Group	CAS	Reporting Limit (µg/L)	Standard Method for Analysis/ Testing
Di(ethylhexyl) phthalate (DEHP)	117-81-7	10	US EPA 8270D, ISO 18856 Dichloromethane extraction GC/MS
Bis(2-methoxyethyl) phthalate (DMEP)	117-82-8		
Di-n-octyl phthalate (DNOP)	117-84-0		
Di-iso-decyl phthalate (DIDP)	26761-40-0		
Di-isononyl phthalate (DINP)	28553-12-0		
Di-n-hexyl phthalate (DnHP)	84-75-3		
Dibutyl phthalate (DBP)	84-74-2		
Butyl benzyl phthalate (BBP)	85-68-7		
Dinonyl phthalate (DNP)	84-76-4		
Diethyl phthalate (DEP)	84-66-2		
Di-n-propyl phthalate (DPRP)	131-16-8		
Di-isobutyl phthalate (DIBP)	84-69-5		
Di-cyclohexyl phthalate (DCHP)	84-61-7		
Di-iso-octyl phthalate (DIOP)	27554-26-3		
1,2-benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	68515-42-4		
1,2-benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71889-89-6		

**Table 2N:**  
Volatile Organic Compounds (VOC)

Substance or Substance Group	CAS	Reporting Limit (µg/L)	Standard Method for Analysis/ Testing
Benzene	71-43-2	1	ISO 11423-1 Headspace- or Purge-and-Trap-GC/MS US EPA 8260
Xylene	1330-20-7		
o-cresol	95-48-7		
p-cresol	106-44-5		
m-cresol	108-39-4		