

# **Responsible Chemicals Program**

June 2021



# Introduction

We know that the run offers happiness, health & transformation. Running can change everything: your day, your life, and even the whole world. But to create change on a global scale, we have to do more to make those benefits accessible to all people. So, we have a simple goal: every human who wants to run gets to run and has a place to do it.

Our Corporate Responsibility priorities set us on a path to making real and lasting progress toward our goal. Our Responsible Sourcing program is one of these priorities and ensures our materials and product are sustainably and ethically sourced, and that every worker can thrive. We know that a responsible global supply chain starts with the decisions we make, which is why we partner with factories and suppliers that share our values and commitment for respecting human rights, worker wellbeing, and sustainable manufacturing.

Our Responsible Sourcing program measures social and environmental compliance against the Brooks Supplier Code of Conduct and local law, at factories across our manufacturing supply chain. In addition, it aims to assist suppliers along their continuous improvement journey to go beyond compliance, toward our long-term vision of a sustainable supply chain.

A key component of our Responsible Sourcing priority is our Responsible Chemicals program that is tasked with ensuring factories manufacturing Brooks product and materials use only chemicals that are safe for people and the planet. We take a holistic view of chemicals management, managing chemicals entering the facility (Input Management), exiting the factory (Output Management), and the use of chemicals in the facility (Facility Chemicals Management)

To drive the use of safer chemicals across Brooks' supply chain we have set the following commitments:

	Commitment
Input management	100% compliance with ZDHC MRSL by 2025
Facility Chemical	100% of facilities achieve Higg FEM Chemicals Management section level 1
Management	by 2021, level 2 by 2023, & level 3 by 2025
Output Management	Zero discharge of hazardous chemicals by 2025
VOCs	100% product assembly chemicals are water-based by 2023
DWRs	100% DWR and non-wicking treatments are nonfluorinated (C0) by 2023

#### **Basic Principle**

Suppliers implement Brooks' Responsible Chemicals program with **transparency**. We understand the complexity of chemicals management but believe transparency is the foundation for true collaboration and partnership, thus Brooks is committed to working with suppliers who are open and honest with us. Suppliers shall maintain complete, as well as accurate records and information so that compliance can be effectively assessed. Suppliers must not falsify or understate any aspects of the operations to Brooks or audit representatives.

We also require suppliers to implement Brooks' Responsible Chemicals program with **effective management systems** that are essential, to provide the framework for policies and procedures and ensure compliance is part of the day-to-day operation at the facility. A supplier with a strong internal compliance system will be alerted immediately when any non-compliance issues happen, will be able to address without delay, and have preventative measures in place to help ensure any issues do not reoccur.



All Tier 1 and Tier 2 suppliers may not **subcontract** any operation in the manufacturing process without prior written consent from Brooks, and only after the subcontractor has agreed to comply with the Brooks Supplier Code of conduct.



# **Input Management**

Traditional chemical management approaches have focused on eliminating hazardous chemicals from finished materials and final product through compliance with a Restricted Substances List (RSL). In recent years, the apparel and footwear industry has evolved beyond RSLs by adding additional due diligence measures to control chemicals entering the facility through compliance with a Manufacturing Restricted Substances List (MRSL).

Preventing hazardous chemicals from entering the production process, known as *input management*, is now an integral part of effective chemicals management and is an essential approach to ensure safer facility discharges, such as wastewater and air emissions, protecting workers and the surrounding environment, and more consistent RSL material compliance.

Brooks is committed to ensuring that all chemicals entering facilities manufacturing Brooks material and product minimize risk to human health, improve worker safety, and limit the impact on the environment. As such, we have committed to **100% compliance with the ZDHC MRSL by 2025**.

Our approach to achieve this goal is to align with the wider apparel and footwear industry by adopting the ZDHC MRSL, a list of chemical substances that are banned from intentional use in facilities:

Different chemical formulations are used in production practices. In turn, each of those formulations is made from a list of substances. The ZDHC MRSL looks in detail at those substances. It establishes acceptable limits for each one and outlines which ones to avoid, in particular those banned from intentional use.

The ZDHC MRSL helps chemical formulators by offering guidance on substances they can avoid using in their products. Suppliers also benefit. To make materials, they must source various chemical products from formulators. The ZDHC MRSL makes that easier by proving the absence of hazardous substances in those products.

(Source: Roadmap to Zero - Input)

#### **Our Expectations:**

Brooks requires suppliers to source chemicals that are ZDHC MRSL compliant and meet conformance level 1 by 2025.

#### **Demonstrating Compliance:**

Suppliers should communicate with their chemical suppliers to ensure all chemicals purchased are MRSL compliant. The ZDHC Gateway Chemical Module is a database of chemical products and their ZDHC MRSL conformance level. Suppliers can use this tool to cross check their chemical products and find substitutions with higher conformance levels for continued performance improvement.

Suppliers shall demonstrate compliance with the ZDHC MRSL via the Performance InCheck Report. Below is a summary of the necessary steps with further information available <a href="here">here</a>.

- 1) Create ZDHC Gateway account via invitation link (Brooks will send the link)
- 2) Select Solution Provider on Implementation HUB website
- 3) Create an account on solution provider tool and select InCheck option (if required)
- 4) Supplier uploads chemical inventory on solution provider tool
- 5) Performance InCheck report is delivered via solution provider tool to supplier
- 6) Performance InCheck report (PDF and .xls data) is stored in ZDHC Gateway supplier account



7) Performance InCheck report data availability is flagged on supplier account (visible to Brooks)

Brooks will review submitted InCheck reports and provide comment. Where necessary, supplier will implement a Corrective Action Plan (CAP) including substituting non-compliant substances with ZDHC MRSL compliant alternatives or engage their chemical suppliers to request they register and list their chemicals in the ZDHC Gateway.

# **Facilities Chemical Management**

A critical component of an effective chemicals management program is the implementation of policies and practices to appropriately manage chemical use in a manufacturing facility, including inventory management, storage, handling, use, and health & safety.

#### **Our Expectations:**

Brooks is committed to working with manufacturing facilities that implement best-in-class chemicals management practices and we have set the goal to source 100% of materials and product from facilities that achieve Higg FEM Chemicals Management section level 1 by 2021, level 2 by 2023, & level 3 by 2025.

We expect facilities to implement the <u>ZDHC Chemical Management System (CMS) framework</u> that lists the minimum requirements for a CMS. Suppliers should reference the <u>ZDHC CMS Technical Industry Guideline</u> that provides more specific, technical information to support implementation of the ZDHC CMS Framework.

#### **Demonstrating Compliance:**

Facility implementation of the ZDHC CMS framework will be evaluated via the Higg Facilities Environmental Module (Higg FEM) and more specifically, the Chemicals Management section. The Higg FEM should be completed annually by each facility manufacturing Brooks product or materials and verified by an SAC approved verifier. Higg FEM self-assessment should be complete and posted by April 30<sup>th</sup> each year and verified by an SAC approved verifier before June 30<sup>th</sup> each year.

Brooks will review the verified Higg FEM and provide feedback to suppliers. When a facility does not meet Brooks' above stated Higg FEM level goal, supplier shall be required to take appropriate actions to ensure they meet the required performance level in the subsequent Higg FEM assessment.

# **Output Management**

There are multiple forms of outputs at a manufacturing facility including waste, wastewater, sludge, air emissions, and finished product. To mitigate against pollution and to protect the surrounding environment, communities, and consumers, it's critical these outputs are managed, treated, and discharged properly.

Brooks is committed to ensure no hazardous chemicals exit facilities manufacturing Brooks product and materials and has committed to zero discharge of hazardous chemicals by 2025.

## **Materials & Finished Product:**

#### **Our Expectations:**

The Brooks Restricted Substances List (RSL) (see page 8) defines those substances that we restrict or eliminate from our products. All materials in Brooks product and all finished product must comply with our



**RSL**. We communicate our restricted substances requirements to all our suppliers through our RSL and maintain this understanding through our Code of Conduct and RSL Compliance Agreement, which shall be signed by all suppliers with each updated version.

#### **Demonstrating Compliance:**

Every material is required to be tested against the Brooks RSL. Testing must be conducted at a Brooks approved lab. Further details on testing procedure can be found on page 8 of this document.

#### **Wastewater and Sludge:**

#### **Our Expectations:**

We have aligned with the apparel and footwear industry and adopted the ZDHC wastewater guidelines, a unified set of expectations across the industry for wastewater discharge quality that goes beyond regulatory compliance. It covers not only conventional wastewater parameters, but also hazardous substances in the ZDHC MRSL. **Brooks requires suppliers to comply with the ZDHC Wastewater Guidelines**, specifically:

- Facilities with **domestic wastewater**: are required, at a minimum to, comply with the foundational limits of all the conventional parameters of the ZDHC wastewater guidelines, including Table 1A (Sum Parameters and Anions) and Table 1B (Metals). Through continuous improvement actions on input chemical management and the effluent treatment processes, a supplier can advance from meeting Foundational level to meeting Progressive or Aspirational Level.
- Facilities with **industrial wastewater**: at a minimum, are required to meet the foundational limits for all conventional parameters and shall meet the reporting limits for both wastewater and sludge. Through continuous improvement actions on input chemical management and the effluent treatment processes, a supplier can advance from meeting Foundational level to meeting Progressive or Aspirational Level.

#### **Demonstrating Compliance:**

Suppliers shall conduct sampling of wastewater twice per year before April 30th and October 31st using a ZDHC approved lab. Brooks will review wastewater test reports and provide comment. For non-conformities against the ZDHC Wastewater guidelines, a supplier shall conduct a root cause analysis to generate and implement a CAP. ZDHC CMS Technical Industry Guide is a good resource for CAP.

#### **Air Emissions and Solid Waste:**

#### **Our Expectations:**

Brooks' approach to assess supplier's appropriate management of air emissions and solid waste is to adopt the Higg Facilities Environmental Module (Higg FEM). Suppliers are expected at a minimum to achieve Higg FEM level 1 across all sections of the Higg FEM.

## **Demonstrating Compliance:**

The Higg FEM should be completed annually and verified by an SAC approved verifier. Suppliers need to annually purchase Higg FEM by January 1<sup>st</sup>, complete & post self-assessment by April 30<sup>th</sup>, and complete & post verification by June 30<sup>th</sup>. Brooks will review the verified Higg FEM and provide comment. Facilities with no Higg FEM level achieved will be required to implement a CAP and take necessary action to ensure Higg FEM level 1 performance is achieved at a minimum. Brooks' long-term goal is that facilities achieve Higg FEM level 3, and we expect suppliers to proactively take steps towards achieving this level of performance. Suppliers should reference the ZDHC CMS Framework and ZDHC CMS Technical Industry Guide for appropriate management of air emissions and solid waste outputs.



# **Volatile Organic Compounds**

Chemicals used to manufacture materials and assemble our product are essential for ensuring the quality and performance of our gear. However, certain chemicals can negatively impact the health of factory workers and the planet. Volatile Organic Compounds (VOCs) are a class of chemicals commonly found in certain chemicals used in the manufacture of footwear and apparel and Brooks has committed to eliminate the use of VOCs from all chemicals used in the assembly of Brooks footwear by 2023.

#### **Our Expectations:**

All primers, adhesives, cleaners, hardeners, detergents, inks, and paints shall be water-based by no later than 2023

#### **Demonstrating Compliance:**

Suppliers need to provide the chemical usage data each quarter. Brooks will review, analyze, and comment, based on Water Based Chemical Replacement Plan. Facilities not on track will be required to analyze the root cause and update the strategy.

# **Durable Water Repellents / Non-Wicking Treatments**

Brooks is committed to eliminate Perfluorinated & Polyfluorinated (PFC) chemicals in Durable Water Repellent (DWR) chemicals and non-wicking treatments.

#### **Our Expectations:**

All DWR and non-wicking treatments shall be nonfluorinated (CO) alternatives by no later than 2023. C8-based Perfluorinated chemicals must not be used on any Brooks product.

#### **Demonstrating Compliance:**

Each development season, suppliers shall submit DWR and non-wicking treatment material list with all PFCs declaration – C6, C4, C0/PFC Free, and all applicable MSDS. Suppliers with PFC content (C6 and C4) will be required to seek replacement.



# **Brooks Sports Restricted Substances List**

Last updated June 2021





#### 1. INTRODUCTION

Brooks is committed to operating in a sustainable manner in order to protect consumers, workers, and the environment. As a participant in the Brooks supply chain, we expect suppliers to understand and comply with the requirements in this latest Brooks Restricted Substances List ("RSL") updated May, 2021. If you have any questions, please contact Victor Song (Victor.Song@brooksrunning.com).

#### 2. SCOPE

The RSL applies to all Brooks materials and finished products.

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э.	NJL	AUI	LLIN	/I L I V I

All materials used in any Brooks p	product must comply	with the RSL. Tier	1 factories are	responsible for all
subcontractors. Use of a subcont	ractor is not allowed	unless it has also a	agreed in writing	g to comply with this
RSL. On behalf of	(supplier	name), I,		(name) agree to
comply with the requirements he	erein, including prohib	oitions and limitati	ons. I understa	nd that compliance
with all applicable laws and the R	SL is a condition to, a	nd incorporated in	n, each and eve	ry order placed by
Brooks Sports; each shipment co	nstitutes our warranty	y that the goods sl	hipped fully con	nply with the RSL;
and any subcontractor we use had products worldwide and each and jurisdiction where we sell product laws apply. We agree to defend a component does not comply with product.	d every product has to ets. If the laws in a par and indemnify Brooks	o adhere to this RS ticular jurisdiction against any claim	SL and the local n are more strict that a product,	laws of each t than this RSL, the material, process, or
I am an owner, director, officer o and bind Supplier. AGREED TO O			authorized to sig	gn this RSL Agreement
Ву	_(print name)			
Signed	(signature)			
Representative of		(supplier name	<b>=)</b>	



#### 4. ABBREVIATIONS

#### 4.1. CAS

CAS registry numbers are unique numerical identifiers for chemical elements, compounds, polymers, biological sequences, mixtures and alloys. Chemical Abstracts Service (CAS), a division of the American Chemical Society, assigns these identifiers to every chemical that has been described in the literature. The intention is to make database searches more convenient, as chemicals often have many names. Almost all molecule databases today allow searching by CAS number.

#### 4.2. Brooks Limit

The maximum limit of the substance allowed in the finished product.

#### 4.3. Usage Ban

For several chemical substances or substance groups a usage ban is defined. For these substances or substance group intentional use in manufacturing of articles is prohibited. That means that chemical products used for manufacturing of articles must not intentionally contain these substances or substance groups.

The aim of a usage ban is to avoid release of harmful substances to the environment and to avoid occurrence in the manufactured article by precautionary principle.



# 5. RESTRICTED SUBSTANCES LIST

CAS NO.	Restricted Substance	<b>Brooks Limit</b>	Test Method and Comments
	Acetophene and 2-Phenyl-2-Propanol		
98-86-2	Acetophenone (only for kids products)	50ppm	Extraction with acetone in 60°C for 30mins &
	2 phonyl 2 proposal (only for kide products)	- Conno	GC-MS  Extraction with acetone in 60°C for 30mins &
617-94-7	2-phenyl-2-propanol (only for kids products)	50ppm	GC-MS
	AP (alkylphenols), APEO (alkylphenol ethoxylates)		
	NP (Nonylphenol)	50ppm for sum of AP,	HPLC-MS and GC-MS
Various	NPEO (Nonylphenol ethoxylates)	100ppm for sum of APEO	
	OP (Octylphenol)		
	OPEO (Octylphenol ethoxylates)		
	Asbestos (6 kinds)		
77536-66-4	Actinolite	Usage ban	REM/EDX BGI 505-46 or U.S EPA/600/R-
12172-73-5	Amosite		93/116
77536-67-5	Anthrophyllite		
12001-29-5	Chrysotile		
12001-28-4	Crocidolite		
77536-68-6	Tremolite		
	Azo Dyes (28 Kinds)		
92-67-1	4-Aminodiphenyl	Under 5ppm	Use methods EN ISO 14362-1/3: 2017 for
92-87-5	Benzidine		detection of colorants in textiles.
95-69-2	4-Chloro-o-toluidine		
91-59-8	2-Napthylamine		Use methods EN ISO 14362-3: 2017 for
97-56-3	o-Aminoazotoluene		detection of colorants in textiles which may
99-55-8	2-Amino-4-nitrotoluene		release 4-aminoazobenzene.
615-05-4	2,4-Diaminoanisole		
101-77-9	4,4'-Diamino-diphenylmethane		Use EN ISO 17234-1:2015 for detection of
91-94-1	3,3'-Dichlorobenzidine		colorants in Leather
119-90-4	3,3'-Dimethoxybenzidine		
119-93-7	3,3'-Dimethylbenzidine		Use EN ISO 17234-2:2011 for detection of
838-88-0	3,3'-Dimethyl-4,4'-diaminodiphenylmethane		colorants in leather which may release 4-
101-14-4	4,4'-Methylene-bis-(2-chloroaniline)		aminoazobenzene.
101-80-4	4,4'-Oxydianiline		
139-65-1	4,4'-Thiodianiline		
95-80-7	2,4-Toluenediamine		
95-53-4	o-Toluidine		
137-17-7	2,4,5-Trimethylaniline		
95-68-1	2,4-Xylidine		
87-62-7	2,6-Xylidine		
106-47-8	p-Chloroaniline		
120-71-8	p-Cresidine		
90-04-0	o –Anisidine		
60-09-3	4-Amino azobenzene		
3165-93-3	4-chloro-o-toluidinium chloride		
553-00-4	2-Naphthylammonium acetate		
39156-41-7	2,4-diaminoanisole sulphate		
21436-97-5	2,4,5-trimethylaniline hydrochloride		
21430-37-3	Bis-phenol A		
00.05.7	, '	Hanna han (Hanlan 1 mara)	LIDI C /NAC
80-05-7	Bis-phenol A (BPA)	Usage ban (Under 1ppm)	HPLC/MS
07.07.5	Chlorophenols	Net detected / 1	Tartile: \$ \$41,550,000,000,000,000,000,000
87-87-5	Pentachlorophenol (PCP), its salts, esters	Not detected (under	Textile: § 64 LFGB BVL B82.02.8 with alkaline
25167-83-3	Tetrachlorophenol (TeCP)	0.05ppm textile; under 0.1ppm leather)	digestion Leather: ISO 17070
	Chlorinated Aromatic Hydrocarbons	0.1ppiii leatilei)	Leather. ISO 17070
5246.25.4	T	1ppm each	EN 17137
5216-25-1	α, α, α,4-tetrachlorotoluene	тррін еасіі	LIV 1/13/
98-07-7	α, α, α-trichlorotoluene		
100-44-7	α-chlorotoluene; benzyl chloride		
	Dimethylfumarate		
624-49-7	Dimethyl Fumarate (DMFu)	Usage ban (0.1ppm)	ISO/TS 16186



CAS NO.	Restricted Substance	Brooks Limit	Test Method and Comments
	Disperse Dyes (22 kinds)		
2475-45-8	Disperse Blue 1	50ppm	DIN 54231: 2005
2475-46-9	Disperse Blue 3		
3860-63-7	Disperse Blue 26		
3179-90-6	Disperse Blue 7		
12222-75-2	Disperse Blue 35		
12222-97-8	Disperse Blue 102		
12223-01-7	Disperse Blue 106		
61951-51-7	Disperse Blue 124		
23355-64-8	Disperse Brown 1		
2581-65-2	Disperse Orange 1		
730-40-5	Disperse Orange 3		
13301-61-6	Disperse Orange 37/59/76		
85136-74-9	Disperse Orange 149		
119-15-3	Disperse Yellow 1		
2832-40-8	Disperse Yellow 3		
6373-73-5	Disperse Yellow 9		
6250-23-3	Disperse Yellow 23 Disperse Yellow 39		
12236-29-2 54824-37-2	Disperse Yellow 49		
2872-52-8	Disperse Red 1		
2872-48-2	Disperse Red 11		
3179-89-3	Disperse Red 17		
3173-63-3	Carcinogenic Dyes (10 kinds)		
3761-53-3	C.I. Acid red 26	50ppm	DIN 54231: 2005
569-61-9	C.I. Basic Red 9	Зоррии	BIN 34231. 2003
548-62-9	C.I. Basic Violet 3		
632-99-5	C.I. Basic Violet 14		
1937-37-7	C.I. Direct Black 38		
2602-46-2	C.I. Direct Blue 6		
2580-56-5	C.I. Basic Blue 26		
573-58-0	C.I. Direct Red 28		
82-28-0	Disperse Orange 11		
2475-45-8	Disperse Blue 1		
	Dioxins & Furans		
	Carrier 1.	6 60 44 //	110 504 0000 /: 1
I	Group 1:	Sum of Group 1: 1 μg/kg	US EPA 8290 – (industry practice – not
1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin	Sum of Group 1: 1 µg/kg	specified by the regulation)
40321-76-4	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin	Sum of Group 1 & 2:	
40321-76-4 51207-31-9	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran		
40321-76-4	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin	Sum of Group 1 & 2: 5µg/kg	
40321-76-4 51207-31-9	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran	Sum of Group 1 & 2: 5µg/kg Sum of Group 1, 2 & 3:	
40321-76-4 51207-31-9	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran	Sum of Group 1 & 2: 5µg/kg	
40321-76-4 51207-31-9 57117-31-4	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2:	Sum of Group 1 & 2: 5μg/kg Sum of Group 1, 2 & 3: 100 μg/kg	
40321-76-4 51207-31-9 57117-31-4 39227-28-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	Sum of Group 1 & 2: 5µg/kg Sum of Group 1, 2 & 3:	
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	Sum of Group 1 & 2: 5μg/kg Sum of Group 1, 2 & 3: 100 μg/kg Sum of Group 4: 1 μg/kg	
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3 57653-85-7	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran	Sum of Group 1 & 2: 5μg/kg  Sum of Group 1, 2 & 3: 100 μg/kg  Sum of Group 4: 1 μg/kg  Sum of Group 4 & 5: 5	
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,7,8,9-Hexachlorodibenzofuran 1,2,3,7,8,9-Hexachlorodibenzofuran	Sum of Group 1 & 2: 5μg/kg Sum of Group 1, 2 & 3: 100 μg/kg Sum of Group 4: 1 μg/kg	
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9 57117-44-9	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,7,8,9-Hexachlorodibenzofuran 1,2,3,7,8,9-Hexachlorodibenzofuran 1,2,3,6,7,8-Hexachlorodibenzofuran	Sum of Group 1 & 2: 5μg/kg  Sum of Group 1, 2 & 3: 100 μg/kg  Sum of Group 4: 1 μg/kg  Sum of Group 4 & 5: 5	
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,7,8,9-Hexachlorodibenzofuran 1,2,3,7,8,9-Hexachlorodibenzofuran	Sum of Group 1 & 2: 5μg/kg  Sum of Group 1, 2 & 3: 100 μg/kg  Sum of Group 4: 1 μg/kg  Sum of Group 4 & 5: 5	
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9 57117-44-9	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,7,8,9-Hexachlorodibenzofuran 1,2,3,7,8,9-Hexachlorodibenzofuran 1,2,3,6,7,8-Hexachlorodibenzofuran	Sum of Group 1 & 2: 5μg/kg  Sum of Group 1, 2 & 3: 100 μg/kg  Sum of Group 4: 1 μg/kg  Sum of Group 4 & 5: 5	1
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9 57117-44-9	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,4,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,7,8,9-Hexachlorodibenzofuran 1,2,3,6,7,8-Hexachlorodibenzofuran 2,3,4,6,7,8-Hexachlorodibenzofuran	Sum of Group 1 & 2: 5μg/kg  Sum of Group 1, 2 & 3: 100 μg/kg  Sum of Group 4: 1 μg/kg  Sum of Group 4 & 5: 5	1
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9 57117-44-9 60851-34-5	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,7,8,9-Hexachlorodibenzofuran 1,2,3,6,7,8-Hexachlorodibenzofuran 2,3,4,6,7,8-Hexachlorodibenzofuran Group 3: 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Octachlorodibenzo-p-dioxin	Sum of Group 1 & 2: 5μg/kg  Sum of Group 1, 2 & 3: 100 μg/kg  Sum of Group 4: 1 μg/kg  Sum of Group 4 & 5: 5	1 7 7
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9 57117-44-9 60851-34-5 35822-46-9 3268-87-9 67562-39-4	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,7,8,9-Hexachlorodibenzofuran 1,2,3,6,7,8-Hexachlorodibenzofuran 2,3,4,6,7,8-Hexachlorodibenzofuran Group 3: 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	Sum of Group 1 & 2: 5μg/kg  Sum of Group 1, 2 & 3: 100 μg/kg  Sum of Group 4: 1 μg/kg  Sum of Group 4 & 5: 5	1 7 7
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9 57117-44-9 60851-34-5 35822-46-9 3268-87-9 67562-39-4 55673-89-7	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,6,7,8-Hexachlorodibenzofuran 2,3,4,6,7,8-Hexachlorodibenzofuran Group 3: 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzofuran 1,2,3,4,7,8,9-Heptachlorodibenzofuran	Sum of Group 1 & 2: 5μg/kg  Sum of Group 1, 2 & 3: 100 μg/kg  Sum of Group 4: 1 μg/kg  Sum of Group 4 & 5: 5	
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9 57117-44-9 60851-34-5 35822-46-9 3268-87-9 67562-39-4	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,7,8,9-Hexachlorodibenzofuran 1,2,3,6,7,8-Hexachlorodibenzofuran 2,3,4,6,7,8-Hexachlorodibenzofuran Group 3: 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	Sum of Group 1 & 2: 5μg/kg  Sum of Group 1, 2 & 3: 100 μg/kg  Sum of Group 4: 1 μg/kg  Sum of Group 4 & 5: 5	
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9 57117-44-9 60851-34-5 35822-46-9 3268-87-9 67562-39-4 55673-89-7	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,6,7,8-Hexachlorodibenzofuran 2,3,4,6,7,8-Hexachlorodibenzofuran Group 3: 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzofuran 1,2,3,4,7,8,9-Heptachlorodibenzofuran	Sum of Group 1 & 2: 5μg/kg  Sum of Group 1, 2 & 3: 100 μg/kg  Sum of Group 4: 1 μg/kg  Sum of Group 4 & 5: 5	
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9 57117-44-9 60851-34-5 35822-46-9 3268-87-9 67562-39-4 55673-89-7	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,4,8,9-Hexachlorodibenzofuran 1,2,3,6,7,8-Hexachlorodibenzofuran 2,3,4,6,7,8-Hexachlorodibenzofuran Group 3: 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzofuran 1,2,3,4,6,7,8-Heptachlorodibenzofuran 1,2,3,4,6,7,8,9-Octachlorodibenzofuran 1,2,3,4,6,7,8,9-Octachlorodibenzofuran 1,2,3,4,6,7,8,9-Octachlorodibenzofuran	Sum of Group 1 & 2: 5μg/kg  Sum of Group 1, 2 & 3: 100 μg/kg  Sum of Group 4: 1 μg/kg  Sum of Group 4 & 5: 5	
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9 57117-44-9 60851-34-5 35822-46-9 3268-87-9 67562-39-4 55673-89-7 39001-02-0	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,7,8,9-Hexachlorodibenzofuran 1,2,3,6,7,8-Hexachlorodibenzofuran 2,3,4,6,7,8-Hexachlorodibenzofuran Group 3: 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzofuran 1,2,3,4,6,7,8-Heptachlorodibenzofuran 1,2,3,4,6,7,8,9-Octachlorodibenzofuran 1,2,3,4,6,7,8,9-Octachlorodibenzofuran 1,2,3,4,6,7,8,9-Octachlorodibenzofuran 1,2,3,4,6,7,8,9-Octachlorodibenzofuran Group 4:	Sum of Group 1 & 2: 5μg/kg  Sum of Group 1, 2 & 3: 100 μg/kg  Sum of Group 4: 1 μg/kg  Sum of Group 4 & 5: 5	1
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9 57117-44-9 60851-34-5 35822-46-9 3268-87-9 67562-39-4 55673-89-7 39001-02-0	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,7,8,9-Hexachlorodibenzofuran 1,2,3,6,7,8-Hexachlorodibenzofuran 2,3,4,6,7,8-Hexachlorodibenzofuran Group 3: 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzofuran 1,2,3,4,6,7,8-Heptachlorodibenzofuran 1,2,3,4,6,7,8,9-Octachlorodibenzofuran 1,2,3,4,6,7,8,9-Octachlorodibenzofuran 1,2,3,4,6,7,8,9-Octachlorodibenzofuran Group 4: 2,3,7,8-Tetrabromodibenzo-p-dioxin	Sum of Group 1 & 2: 5μg/kg  Sum of Group 1, 2 & 3: 100 μg/kg  Sum of Group 4: 1 μg/kg  Sum of Group 4 & 5: 5	1
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9 57117-44-9 60851-34-5 35822-46-9 3268-87-9 67562-39-4 55673-89-7 39001-02-0 50585-41-6 109333-34-8	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,7,8,9-Hexachlorodibenzofuran 1,2,3,6,7,8-Hexachlorodibenzofuran 2,3,4,6,7,8-Hexachlorodibenzofuran Group 3: 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzofuran 1,2,3,4,6,7,8-Heptachlorodibenzofuran 1,2,3,4,6,7,8-Heptachlorodibenzofuran 1,2,3,4,6,7,8,9-Octachlorodibenzofuran 1,2,3,4,6,7,8,9-Octachlorodibenzofuran 1,2,3,4,6,7,8,9-Octachlorodibenzofuran Group 4: 2,3,7,8-Tetrabromodibenzo-p-dioxin 1,2,3,7,8-Pentabromodibenzo-p-dioxin	Sum of Group 1 & 2: 5μg/kg  Sum of Group 1, 2 & 3: 100 μg/kg  Sum of Group 4: 1 μg/kg  Sum of Group 4 & 5: 5	1
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9 57117-44-9 60851-34-5 35822-46-9 3268-87-9 67562-39-4 55673-89-7 39001-02-0 50585-41-6 109333-34-8 67933-57-7	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,7,8,9-Hexachlorodibenzofuran 1,2,3,6,7,8-Hexachlorodibenzofuran 2,3,4,6,7,8-Hexachlorodibenzofuran Group 3: 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzofuran 1,2,3,4,6,7,8,9-Octachlorodibenzofuran 1,2,3,4,7,8,9-Heptachlorodibenzofuran 1,2,3,7,8-Tetrabromodibenzo-p-dioxin 1,2,3,7,8-Pentabromodibenzo-p-dioxin 2,3,7,8-Tetrabromodibenzofuran 2,3,4,7,8-Pentabromodibenzofuran	Sum of Group 1 & 2: 5μg/kg  Sum of Group 1, 2 & 3: 100 μg/kg  Sum of Group 4: 1 μg/kg  Sum of Group 4 & 5: 5	1
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9 57117-44-9 60851-34-5 35822-46-9 3268-87-9 67562-39-4 55673-89-7 39001-02-0 50585-41-6 109333-34-8 67933-57-7 131166-92-2	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,7,8,9-Hexachlorodibenzofuran 1,2,3,6,7,8-Hexachlorodibenzofuran 2,3,4,6,7,8-Hexachlorodibenzofuran Group 3: 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzofuran 1,2,3,4,6,7,8,9-Octachlorodibenzofuran 1,2,3,4,7,8,9-Octachlorodibenzofuran 1,2,3,7,8-Tetrabromodibenzo-p-dioxin 1,2,3,7,8-Tetrabromodibenzo-p-dioxin 2,3,7,8-Tetrabromodibenzofuran 2,3,4,7,8-Pentabromodibenzofuran Group 5:	Sum of Group 1 & 2: 5μg/kg  Sum of Group 1, 2 & 3: 100 μg/kg  Sum of Group 4: 1 μg/kg  Sum of Group 4 & 5: 5	1
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9 57117-44-9 60851-34-5 35822-46-9 3268-87-9 67562-39-4 55673-89-7 39001-02-0 50585-41-6 109333-34-8 67933-57-7	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,7,8,9-Hexachlorodibenzofuran 1,2,3,6,7,8-Hexachlorodibenzofuran 2,3,4,6,7,8-Hexachlorodibenzofuran Group 3: 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzofuran 1,2,3,4,6,7,8,9-Octachlorodibenzofuran 1,2,3,4,7,8,9-Heptachlorodibenzofuran 1,2,3,7,8-Tetrabromodibenzo-p-dioxin 1,2,3,7,8-Pentabromodibenzo-p-dioxin 2,3,7,8-Tetrabromodibenzofuran 2,3,4,7,8-Pentabromodibenzofuran	Sum of Group 1 & 2: 5μg/kg  Sum of Group 1, 2 & 3: 100 μg/kg  Sum of Group 4: 1 μg/kg  Sum of Group 4 & 5: 5	1 7 7
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9 57117-44-9 60851-34-5 35822-46-9 3268-87-9 67562-39-4 55673-89-7 39001-02-0 50585-41-6 109333-34-8 67933-57-7 131166-92-2	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,7,8,9-Hexachlorodibenzofuran 1,2,3,6,7,8-Hexachlorodibenzofuran 2,3,4,6,7,8-Hexachlorodibenzofuran Group 3: 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzofuran 1,2,3,4,7,8,9-Octachlorodibenzofuran 1,2,3,4,7,8,9-Octachlorodibenzofuran 1,2,3,7,8-Tetrabromodibenzo-p-dioxin 1,2,3,7,8-Tetrabromodibenzo-p-dioxin 2,3,7,8-Tetrabromodibenzofuran Group 5: 1,2,3,4,7,8-Hexabromodibenzo-p-dioxin	Sum of Group 1 & 2: 5μg/kg  Sum of Group 1, 2 & 3: 100 μg/kg  Sum of Group 4: 1 μg/kg  Sum of Group 4 & 5: 5	1
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9 57117-44-9 60851-34-5 35822-46-9 3268-87-9 67562-39-4 55673-89-7 39001-02-0 50585-41-6 109333-34-8 67933-57-7 131166-92-2	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,6,7,8-Hexachlorodibenzofuran 2,3,4,6,7,8-Hexachlorodibenzofuran Group 3: 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzofuran 1,2,3,4,7,8,9-Heptachlorodibenzofuran 1,2,3,4,7,8,9-Hetachlorodibenzofuran 1,2,3,7,8-Tetrabromodibenzo-p-dioxin 1,2,3,7,8-Tetrabromodibenzo-p-dioxin 2,3,4,7,8-Pentabromodibenzofuran Group 5: 1,2,3,4,7,8-Hexabromodibenzo-p-dioxin 1,2,3,7,8,9-Hexabromodibenzo-p-dioxin	Sum of Group 1 & 2: 5μg/kg  Sum of Group 1, 2 & 3: 100 μg/kg  Sum of Group 4: 1 μg/kg  Sum of Group 4 & 5: 5	
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9 57117-44-9 60851-34-5 35822-46-9 3268-87-9 67562-39-4 55673-89-7 39001-02-0 50585-41-6 109333-34-8 67933-57-7 131166-92-2 110999-44-5 110999-45-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,6,7,8-Hexachlorodibenzofuran 2,3,4,6,7,8-Hexachlorodibenzofuran Group 3: 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzofuran 1,2,3,4,7,8,9-Heptachlorodibenzofuran 1,2,3,4,7,8,9-Hetachlorodibenzofuran 1,2,3,7,8-Tetrabromodibenzo-p-dioxin 1,2,3,7,8-Tetrabromodibenzo-p-dioxin 2,3,7,8-Tetrabromodibenzofuran Group 5: 1,2,3,4,7,8-Hexabromodibenzo-p-dioxin 1,2,3,7,8,9-Hexabromodibenzo-p-dioxin 1,2,3,7,8,9-Hexabromodibenzo-p-dioxin 1,2,3,7,8,9-Hexabromodibenzo-p-dioxin	Sum of Group 1 & 2: 5μg/kg  Sum of Group 1, 2 & 3: 100 μg/kg  Sum of Group 4: 1 μg/kg  Sum of Group 4 & 5: 5	
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9 57117-44-9 60851-34-5 35822-46-9 3268-87-9 67562-39-4 55673-89-7 39001-02-0 50585-41-6 109333-34-8 67933-57-7 131166-92-2 110999-44-5 110999-45-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,6,7,8-Hexachlorodibenzofuran 2,3,4,6,7,8-Hexachlorodibenzofuran Group 3: 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzofuran 1,2,3,4,7,8,9-Heptachlorodibenzofuran 1,2,3,4,7,8,9-Hetachlorodibenzofuran 1,2,3,7,8-Tetrabromodibenzo-p-dioxin 1,2,3,7,8-Tetrabromodibenzo-p-dioxin 2,3,7,8-Tetrabromodibenzofuran Group 5: 1,2,3,4,7,8-Hexabromodibenzo-p-dioxin 1,2,3,7,8,9-Hexabromodibenzo-p-dioxin 1,2,3,7,8,9-Hexabromodibenzo-p-dioxin 1,2,3,7,8,9-Hexabromodibenzo-p-dioxin	Sum of Group 1 & 2: 5μg/kg  Sum of Group 1, 2 & 3: 100 μg/kg  Sum of Group 4: 1 μg/kg  Sum of Group 4 & 5: 5	1
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9 57117-44-9 60851-34-5 35822-46-9 3268-87-9 67562-39-4 55673-89-7 39001-02-0 50585-41-6 109333-34-8 67933-57-7 131166-92-2 110999-44-5 110999-45-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,6,7,8-Hexachlorodibenzofuran 2,3,4,6,7,8-Hexachlorodibenzofuran Group 3: 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzofuran 1,2,3,4,7,8,9-Heptachlorodibenzofuran 1,2,3,4,7,8,9-Hetachlorodibenzofuran 1,2,3,7,8-Tetrabromodibenzo-p-dioxin 1,2,3,7,8-Tetrabromodibenzo-p-dioxin 2,3,7,8-Tetrabromodibenzofuran Group 5: 1,2,3,4,7,8-Hexabromodibenzo-p-dioxin 1,2,3,7,8,9-Hexabromodibenzo-p-dioxin 1,2,3,7,8,9-Hexabromodibenzo-p-dioxin 1,2,3,7,8,9-Hexabromodibenzo-p-dioxin	Sum of Group 1 & 2: 5μg/kg  Sum of Group 1, 2 & 3: 100 μg/kg  Sum of Group 4: 1 μg/kg  Sum of Group 4 & 5: 5	1
40321-76-4 51207-31-9 57117-31-4 39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9 57117-44-9 60851-34-5 35822-46-9 3268-87-9 67562-39-4 55673-89-7 39001-02-0 50585-41-6 109333-34-8 67933-57-7 131166-92-2 110999-44-5 110999-45-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran Group 2: 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,6,7,8-Hexachlorodibenzofuran 2,3,4,6,7,8-Hexachlorodibenzofuran Group 3: 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzofuran 1,2,3,4,7,8,9-Heptachlorodibenzofuran 1,2,3,4,7,8,9-Hetachlorodibenzofuran 1,2,3,7,8-Tetrabromodibenzo-p-dioxin 1,2,3,7,8-Tetrabromodibenzo-p-dioxin 2,3,7,8-Tetrabromodibenzofuran Group 5: 1,2,3,4,7,8-Hexabromodibenzo-p-dioxin 1,2,3,7,8,9-Hexabromodibenzo-p-dioxin 1,2,3,7,8,9-Hexabromodibenzo-p-dioxin 1,2,3,7,8,9-Hexabromodibenzo-p-dioxin	Sum of Group 1 & 2: 5μg/kg  Sum of Group 1, 2 & 3: 100 μg/kg  Sum of Group 4: 1 μg/kg  Sum of Group 4 & 5: 5	1



	Flame Retardants (19 kinds)		
85535-84-8	Short-chain Chlorinated paraffins (SCCPs, C10 – C13)	Usage ban (under 1,000	Solvent extraction and GS-MS or LC-MS
85535-85-9	Medium-chain Chlorinated Paraffins (MCCPs, C14 – C17)	ppm for SCCP and MCCP;	
59536-65-1	Polybrominated biphenyls (PBBs)	others under 5ppm)	
		,	
25637-99-4	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified:		
124227 50 6			
134237-50-6	Alpha-hexabromocyclododecane		
134237-51-7	Beta-hexabromocyclododecane		
134237-52-8	Gamma-hexabromocyclododecane		
32534-81-9	Penta-bromodiphenyl ether (pentaBDE)		
32536-52-0	Octa-bromodiphenyl ether (octaBDE)		
Various	All other Polybrominated diphenyl ethers (PBDEs)		
126-72-7	Tris (2,3-dibromopropyl) phosphate (TRIS)		
5412-25-9	Bis (2,3-dibromopropyl) phosphate		
545-55-1	Tris (1-aziridinyl)-phosphine oxide (TEPA)		
1163-19-5	Decabromodiphenyl ether (DecaBDE)		
115-96-8	Tris (2-chloroethyl) phosphate		
79-94-7	Tetrabromobisphenol A (TBBPA)		
3296-90-0	2,2-bis(bromomethyl)-1,3-propanediol (BBMP)		
13674-87-8	Tris(1,3-dichloro-isopropyl) phosphate (TDCPP)		
25155-23-1	Trixylyl phosphate (TXP)		
	Fluorinated Greenhouse Gases		
2551-62-4	Sulfur hexafluoride - SF6	Usage ban (under	Headspace GC-MS
		0.1ppm)	
75-46-7	Hydrofluorocarbons (HFCs):		
75-10-5	HFC-23 - CHF3		
593-53-3	HFC-32 - CH2F2		
138495-42-8	HFC-41 - CH3F		
354-33-6	HFC-43-10mee - C5H2F10		
359-35-3	HFC-125 - C2HF5		
811-97-2	HFC-134 - C2H2F4		
75-37-6	HFC-134a - CH2FCF3		
430-66-0	HFC-152a - C2H4F2		
420-46-2	HFC-143 - C2H3F3		
431-89-0	HFC-143a - C2H3F3		
677-56-5	HFC-227ea - C3HF7		
431-63-0	HFC-236cb - CH2FCF2CF3		
690-39-1	HFC-236ea - CHF2CHFCF3		
679-86-7	HFC-236fa - C3H2F6		
460-73-1	HFC-245ca - C3H3F5		
406-58-6	HFC-245fa - CHF2CH2CF3		
	HFC-365mfc - CF3CH2CF2CH3		
	Porfluorocarbons (RECs):		
75-73-0	Perfluorocarbons (PFCs): Perfluoromethane - CF4		
75-73-0 76-16-4	Perfluoroethane - C2F6		
76-16-4 76-19-7	Perfluoropropane - C3F8		
355-25-9	Perfluoroparae - C3F8 Perfluorobutane - C4F10		
678-26-2	Perfluoropentane - C5F12		
355-42-0	Perfluoropentane - C5F12  Perfluoropentane - C6F14		
115-25-3	Perfluorocyclobutane - c-C4F8		
110-20-3	Formaldehyde		
50-00-0	Formaldehyde	Kids(<12years) 20ppm	ISO 14184-1
30 00 0	Tormanachyac	Others (over 12 years):	Leather: ISO 17226-2 by UV method



CAS NO.	Restricted Substance	Brooks Limit	Test Method and Comments
	Total Metals (4 kinds)	Diedis Emile	Test meanor and comments
7439-92-1	Lead	Pb 40ppm	EN 16711-1 for non-leather
7440-43-9	Cadmium	Cd 90ppm	ISO 17072-2 for leather
7439-97-6	Mercury	Hg 1ppm	130 17072-2 for leather
7440-38-2	Arsenic	As 100ppm	
7440-38-2	Extractable Metals (9 kinds)	AS 100ppiii	
7439-92-1	Lead	Lead (Pb) 0.2ppm	EN 16711-2:2015
7440-43-9	Cadmium	Cadmium (Cd) 0.1ppm	LN 10/11-2.2015
7439-97-6	Mercury	Mercury (Hg) 0.02ppm	
7440-36-0	Antimony	Antimony (Sb) 5ppm	
7440-38-2	Arsenic	Arsenic (As) 0.2ppm	
7440-56-2	Copper	Copper (Cu) 25ppm	
7440-30-8	Chromium	Chromium (Cr) 1ppm	
7440-47-3	Cobalt	Cobalt (Co) 4ppm	
18540-29-9	Chromium VI	Chromium VI (Cr VI) 1ppm	
18540-29-9	Chromium VI	` ' ' ' ' '	ISO 10195:2018 method A2
18540-29-9	Chromium vi	Under 3ppm	
7440-02-0	Nickel - Release	0.5 μg/cm2/week	EN 12472:2005 + A1:2009/EN1811:2011 + A1:2015
	Nitrosamines (9 kinds)		
62-75-9	N-nitrosodimethylamine (NDMA)	0.1ppm	GB/T 24153:2009
55-18-5	N-nitrosodiethylamine (NDEA)		
621-64-7	N-nitrosodipropylamine (NDPA)		
924-16-3	N-nitrosodibutylamine (NDBA)		
100-75-4	N-nitrosopiperidine (NPIP)		
930-55-2	N-nitrosopyrrolidine (NPYR)		
59-89-2	N-nitrosomorpholine (NMOR)		
614-00-6	N-nitroso N-methyl N-phenylamine (NMPhA)		
612-64-2	N-nitroso N-ethyl N-phenylamine (NEPhA)		
	Organotin Compounds (7 kinds)		
56573-85-4	Tributyltin (TBT)	Not Detected for TBT, TBTO,	ISO 22744-1
200-268-0	Bis(tributyltin)oxide (TBTO)	TPhT (under 0.1ppm considered	
668-34-8	Triphenyltin (TPhT)	not detected)	
1002-53-5	Dibutyltin (DBT)	1ppm for DBT, MBT, DOT	
15231-44-4	Dioctyltin (DOT)	500ppm for others	
2273-43-0	Monobutyltin (MBT)	300ppiii ioi otileis	
various	All tri-substituted organotin compounds		
	Ortho-phenylphenol	•	
90-43-7	o-Phenylphenol (o-PP)	1000ppm	Extraction with KOH, GCMS
	Perfluorinated and Polyfluorinated Chemicals (PFCs)		1
Various	PFOS (Perflurooctane Sulfonate) and PFOS metallic salt,	Under 1 μg/m2	ISO 23702-1 for leather
	halogenide, amide and other derivatives		CEN/TS 15968 for non-leather
Various	PFOA (Perfluorooctanoic acid) and its salts, esters	Under 25ppb	CEN/TS 15968
Various	PFOA related substances	Under 1,000ppb	CEN/TS 15968



CAS NO.	Restricted Substance	Brooks Limit	Test Method and Comments
	Pesticides (32 kinds)		
93-72-1	2-(2,4,5-trichlorophenoxy) propionic acid, its salts and compounds;	Usage ban (under 0.5ppm)	US EPA 8081B, 3620B, 3630C
	2,4,5-TP		
93-76-5	2,4,5-trichlorophenoxyacetic acid, its salts and compounds		
309-00-2	Aldrin		
57-74-9	Chlordane		
72-54-8	Dichloro-diphenyl-dichloro ethane (DDD)		
72-55-9	Dichloro-diphenyl-dichloro ethylene (DDE)		
50-29-3	Dichloro-diphenyl-trichloro ethane (DDT)		
60-57-1	Dieldrine		
72-20-8	Endrine		
76-44-8	Heptachlor		
1024-57-3	Heptachloroepoxide		
118-74-1	Hexachlorobenzene		
608-73-1	Hexachlorocyclohexane (HCH, all isomers)		
465-73-6	Isodrin		
4234-79-1	Kelevane		
143-50-0	Kepone (Chlordecone)		
58-89-9	Lindane		
72-43-5	Methoxychlor		
2385-85-5	Mirex		
72-56-0	Perthane		
82-68-8	Quintozene		
8001-50-1	Strobane		
297-78-9	Telodrine		
8001-35-2	Toxaphene		
Various	Halogenated naphthalenes, including polychlorinated naphthalenes		
	(PCNs)		
116-06-3	Aldicarb		
6164-98-3	Chlordimeform		
115-32-2	Dicofol		
121-75-5	Malathione		
298-00-0	Methyl Parathion		
56-38-2	Parathion; Ethylparathione		
57648-21-2	Timiperone (DTTB)		



CAS NO.	Restricted Substance	Brooks Limit	Test Method and Comments
	Phthalates (20 kinds)		
28553-12-0	di-isononyl phthalate (DINP)	500ppm each	GC-MS analysis CPSC-CH-C1001-09.4
117-81-7	di(ethylhexyl) phthalate (DEHP)	Total 1,000ppm	
117-84-0	di-n-octyl phthalate (DNOP)	, , , , , , , , , , , , , , , , , , ,	
26761-40-0	di-iso-decyl phthalate (DIDP)		
85-68-7	butyl benzyl phthalate (BBP)		
84-74-2	dibutyl phthalate (DBP)		
84-75-3	di-n-hexyl phthalate (DnHP)		
84-69-5	Diisobytyl Phthalate (DIBP)		
68515-42-4	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear		
	alkyl esters (DHNUP)		
71888-89-6	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters,		
	C7-rich (DIHP)		
117-82-8	Bis(2-methoxyethyl) phthalate (DMEP)		
605-50-5	Diisopentylphthalate (DIPP)		
776297-69-9	N-pentyl-isopentylphthalate		
84-66-2	Diethyl phthalate (DEP)		
131-18-0	Dipentyl phthalate (DPP)		
84777-06-0	1,2-Benzenedicar boxylic acid, dipentylester, branched and		
	linear		
68515-50-4	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and		
	linear		
84-61-7	Dicyclohexyl phthalate		
27554-26-3	Diisooctyl Phthalates (DIOP)		
71850-09-4	Diisohexyl Phthalate		
	PAHs (Polycyclic Aromatic Hydrocarbons) (18 kinds)		
56-55-3	Benzo(a)anthracene	1 ppm each for yellow	AFPS GS 2019:01 PAK
50-32-8	Benzo(a)pyrene	<mark>highlight</mark>	
205-99-2	Benzo(b)fluoranthene		
192-97-2	Benzo(e)pyrene (BeP)	2 ppm for green highlight	
205-82-3	Benzo(j)fluoranthene(BjFA)		
207-08-9	Benzo(k)fluoranthene	10.0ppm for sum of 18 PAHs	
218-01-9	<u>Chrysene</u>		
53-70-3	Dibenz(a,h)anthracene		
191-24-2	Benzo(ghi)perylene		
193-39-5	Indeno(1,2,3-cd)pyrene		
91-20-3	Naphthalene Naphthalene		
83-32-9	Acenaphthene		
208-96-8	Acenaphthylene		
120-12-7	Anthracene		
206-44-0	Fluoranthene		
86-73-7	Fluorene		
85-01-8	Phenanthrene		
129-00-0	Pyrene		
	Polyvinyl Chloride		
9002-86-2	Polyvinyl Chloride (PVC)	Not Detected	Beilstein test plus Fourier Transform- Infrared Spectroscopy



CAS NO.	Restricted Substance	Brooks Limit	<b>Test Method and Comments</b>
	Volatile Organics (30 kinds)		
75-12-7	Formamide	200ppm for Formaldehyde	ISO/TS 16189
68-12-2	Dimethyl formamide (DMFa)		Headspace GC/MS for Benzene
127-19-5	Dimethylacetamide (DMAC)		·
872-50-4	N-Methyl-2-pyrrolidone (NMP)	1ppm for Benzene	
		10ppm for Phenol	
50-00-0	Formaldehyde		
75-15-0	Carbon Disulfide		
108-94-1	Cyclohexanone	1000ppm for sum of VOCs	
71-43-2	Benzene		
100-41-4	Ethylbenzene	For EAV, PU or TPU film,	
108-95-2	Phenol	Synthetic leather, only check	
108-88-3	Toluene	the yellow highlighted	
75-35-4	1,1-Dichloroethylene	substances.	
79-01-6	Trichloroethylene		
127-18-4	Tetrachloroethylene	For adhesive, primer, ink,	
	Cresol (Methylphenole):	please check all VOCs.	
	o-cresol		
95-48-7	m-cresol,		
108-39-4	p-cresol		
106-44-5	p-cresor		
1330-20-7	Xylene:		
85-47-6	o-xylene		
108-38-3	m-xylene,		
106-42-3	p-xylene		
	Dichloromethane		
75-09-2	Chloroform		
67-66-3	Carbon tetrachloride		
56-23-5			
107-06-2	1,2-Dichloroethane		
71-55-6	1,1,1-Trichloroethane		
79-00-5	1,1,2-Trichloroethane		
630-20-6	1,1,1,2-Tetrachloroethane		
79-34-5	1,1,2,2-Tetrachloroethane		
76-01-7	Pentachloroethane		
	UV Inhibitors (4 kinds)		
3846-71-7	2-benzotriazol-2-yl-4,6-di-tert-butylphenol	1,000ppm each	ADIN EN 62321-6: 2016-05
3864-99-1	2,4-Di-tert-butyl-6-(5-chlorobenzotriazole-2-yl) phenol		
25973-55-1	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol		
36437-37-3	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl) phenol		
CAS NO.	Restricted Substance	Brooks Limit	Test Method
1336-36-3	Halogenated biphenyls, including Polychlorinated Biphenyls	Not detected (under 50ppm)	US EPA 3550B/8082A
53469-21-9	(PCBs)		
	Halogenated terphenols, including Polychlorinated Terphenyls	Usage ban (under 50ppm)	US EPA 8082
	(PCTs)	, , ,	
121-14-2	2,4-Dinitrotoluene (DNT)	1000ppm	Screening by GC-MS
91-22-5	Quinoline	50ppm	DIN 54231
	,		

CAS NO.	Parameter	Brooks Limit	Test Method
	pH value	Textile: 4.0 – 7.5	Textile: BS EN ISO 3071
		Leather: 3.5 – 7.5	Leather: ISO 4045
	Odor	≤ Grade 2	SNV195 651
	Odor test for components and finished products (not always		
	required)		



#### 6. RESTRICTED SUBSTANCES TESTING PROCESS

#### 6.1. Routine Tests

Brooks RS team will identify materials by color, vendor, ingredient and production origin for RS testing via the Brooks Test Request Form (Appendix 5). Suppliers must arrange and pay for testing.

#### 6.2. Random Tests

Brooks may randomly test materials, components or finished products at any stage of production. Testing is a prerequisite for shipping.

#### 6.3. Frequency of Testing

Material Type	Color	Minimum Required Frequency
All materials used in Brooks' product		Once per year
Mesh and PU	Neon and metallic colors	Each Year or Each season
	Base colors (including red, yellow, blue, black, white)	Once per year (note: the number of colors and tests can vary by supplier)
Polymers (rubber, EVA, TPU or other)	Neon or metallic colors	Each year or each season
	Other colors	Once per year
Recycled outsole/midsole polymers		Consult with Brooks RS team.

#### 6.4. Approved Testing Laboratories

All the tests must be done in a Brooks-approved testing laboratory, see Appendix 1.

#### 6.5. Failed Tests

For any failed test, the Supplier must notify Brooks immediately and complete the Brooks Corrective Action Form (Appendix 2). The Corrective Action Plan must be implemented within one week. You must consult with Brooks to determine next steps. Even if you choose to re-test you must still report the failed test to Brooks immediately. Note: Brooks reserves the right to reject the material or all material from a supplier as a result of multiple failed tests.



#### 7. TESTING MATRIX

# 7.1. Key Chemical Test List – Footwear

The following table provides test requirements for different material types used in Brooks footwear and identifies high risk parameters for RS testing.

Substances	Natural Fibers	Synthetic Fibers	Blends	Coating & Printing on textile/leather	Polymer (EVA, TPU, Foam)	Rubber	Natural Leather	Synthetic leather	Ink, Paint, Pigment	Adhesive, Solvent, Primer	Metal Items	Paper insole
AZO Dyes	•	•	•	•			•	•				
Disperse Dyes		•	•									
Carcinogenic Dyes	•	•	•	•			•	•				
PCP/ TeCP	•		•	•			•					•
Total Metal				•	•	•	•	•	•		•	•
Nickel – Release											•	
Chromium VI							•					
Extractable Metal	•	•	•	•				•				
Formaldehyde	•	•	•	•			•	•				•
AP, APEO	•	•	•	•	•	•	•	•	•	•		
Organotin Compounds				•	•	•	•	•	•	•		
Phthalates				•	•	•		•	•	•		
PVC				•	•							
Nitrosamines						•						
DMFu							•					
PAHs				•	•	•		•	•			
VOCs				•	•			•	•	•		
PFOS/PFOA	0	0	0	0				0				

Must be tested.

#### **Notes:**

- PVC, Flame Retardant, DMFu and PFOS/PFOA (including all C8-based perfluorinated chemicals) must not be used in Brooks footwear.
- All Brooks Products must adhere to the requirements of the REACH Substances of Very High Concern (SVHC), see Appendix 3.

O Only for water repellent functions.



# 7.2. Key Chemical Test List - Apparel

The following table provides test requirements for different material types used in Brooks footwear and identifies high risk parameters for RS testing.

Substances	Natural Fibers	Synthetic Fibers	Blends	Coating & Printing on Textile/Leather	Polymer (EVA, TPU, Foam, RB)	Natural Leather	Synthetic leather	Ink, Paint, Pigment	Metal Items
AZO Dyes	•	•	•	•		•	•		
Disperse Dyes		•	•						
Carcinogenic Dyes	•	•	•	•		•	•		
PCP/ TePC	•		•	•		•			
Pesticides	•		•						
Nickel – Release									•
Chromium VI						•			
Total Metal				•	•	•	•	•	•
Extractable Metals	•	•	•	•					
Formaldehyde	•	•	•	•		•	•		
AP, APEO	•	•	•	•	•	•	•	•	
Organotin Compounds	•	•	•	•	•	•	•	•	
Phthalates				•	•		•	•	
PVC				•	•				
VOCs				•	•		•	•	
Ph value	•	•	•			•	•		
PFOS/PFOA	0	0	0				0		
Flame Retardants	0	0	0		0	0	0		

Must be tested.

#### Notes:

- PVC, Flame Retardants, Pesticides and PFOS/PFOA must not be used in Brooks apparel.
- Base colors are checked annually, including red, yellow, blue, black, white. The number of colors and tests can vary by Supplier.
- All Brooks Products must adhere to the requirement of the REACH Substances of Very High Concern (SVHC), see Appendix 3.

O Only for water repellent functions or if the material is treated by flame retardants.



#### 8. PACKAGING RESTRICTED SUBSTANCES REQUIREMENTS

Packaging includes, but is not limited to:

- Hand Tags
- Shoe Boxes
- Swifttachs
- Clamshells
- Labels (UPC, case lot and carton)
- Hangers
- Retail, Gift and Specialty Boxes
- Bags and Polybags

- Corrugated Cartons
- Shipping Pallets
- Slip Sheets
- Tissue Paper
- Foam
- Size Strips
- Inserts
- Tape

Anything used for the containment, protection, handling, delivery and presentation of goods, is considered packaging.

You are required to keep the following two documents on file for any packaging material you use, and you must be able to produce these to Brooks at any time upon our request:

- 1. Material Data Safety Sheet
- 2. Test Report

#### 8.1. Testing Requirements

Before production begins, you are required to obtain third party testing of any new packaging material. After the first test, material should be re-tested at least every year. Retain copies of test results and be able to submit them to Brooks immediately upon request.

Paper Packaging needs to be tested: Metal, Formaldehyde, Odor.

Plastic Packaging needs to be tested: Metal, Phthalates, Formaldehyde, BHT, PVC.



# 8.2. Packaging Restricted Substances List (PRSL)

CAS NO.	Restricted Substance	Brooks Limit	Test Method
	Metals	Total sum of all	Microwave digestion with
7439-92-1	Lead	metals: 100ppm	nitric acid, analysis by ICPMS
7440-43-9	Cadmium		
7439-97-6	Mercury		
18540-29-9	Chromium VI		
	Phthalates	Not Detected for	CPSC-CH-C1001-09.4
28553-12-0	Di-isononyl phthalate (DINP)	DEHP, BBP and DBP	
117-81-7	Di(ethylhexyl) phthalate (DEHP)		
117-84-0	Di-n-octyl phthalate (DNOP)	Total F00nnm for	
26761-40-0	Di-iso-decyl phthalate (DIDP)	Total 500ppm for others	
85-68-7	Butyl benzyl phthalate (BBP)	others	
84-74-2	Dibutyl phthalate (DBP)		
84-69-5	Di-isobutyl phthalate (DIBP)		
9002-86-2	(Polyvinyl Chloride) PVC	Must not be used	Beilstein test plus Fourier Transform-Infrared Spectroscopy
80-05-7	Bis-phenol A (BPA)	Not Detected	Analysis is conducted by HPLC/MS
128-37-0	Butylhydroxytoluine (BHT)	Must not be used	Industry practice – not specified by the regulation
			ISO 14184-1
50-00-0	Formaldehyde	75ppm	Leather: ISO 17226-2
624-49-7	Dimethyl Fumarate	Must not be used	ISO/TS 16186
	Active packaging	Must not be used	Visual confirmation
	Odor test	≤ Grade 2	SNV195 651



#### APPENDIX 1: APPROVED LABORATORIES FOR RESTRICTED SUBSTANCES TESTING

Use only these Brooks-approved laboratories for third party testing. Retain all test results and upon request, immediately produce test results to Brooks.

Lab	Address	Contact
Footwear		
Intertek - GZ	Intertek South China, E201, No.7-2, Caipin Road, Guangzhou Science City, GETDD Guangzhou. 510663	Verity Liao Verity.Liao@intertek.com 86-20-82139401 Lisa Liu Alice.Ma@intertek.com
Intertek - Vietnam	Intertek Vietnam, 8 <sup>th</sup> floor of Lobby D at S.O.H.O Biz Office Building No 38 Huynh Lan Khanh St., Ward 2, Tan Binh District, HCM City	Tel: 86-20-53395312  Thanh NQ Nguyen  thanh.nq.nguyen@intertek.com  Nhung Thi Hong Nguyen  Hongnhung.nguyen@intertek.com  Tel: 84-28 62971099-ext 172
CTI - SZ	Centre Testing International Corporation, F5, CTI Building, No.4, Liuxian 3 <sup>rd</sup> Road, Xin'an Street, Bao'an Dis Shenzhen, P.R. China, 518101	Simon Simon.peng@cti-cert.com Tel:86-755-33683434; Merry Merry.Lan@cti-cert.com Tel: 86-75-33681919
TUV - GZ	TUV SUD China 5F, Communication Building, 163 Pingyun Rd, Huangpu Ave. West Guangzhou 510656 P.R. China	Jay <u>Jay.guo@tuv-sud.cn</u> Tel: 86-20-38153468
TUV - Vietnam	TUV SUD Vietnam Lot III-26, 19/5A Street, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCMC, Vietnam	Thao Nguyen  Thu-thao.nguyen@tuvsud.com  Tel: 84-28-62678507 (ext. 151)
BV - Vietnam	Lot C7-C9, Conurbation 2, Cat Lai Industrial Zone, Thanh My Loi Ward District 2, HCMC Vietnam	Kiara Nguyen@bureauveritas.com Tel: 84-28-56786879 (ext. 180/181) Nancy Tran Nancy.Tran@bureauveritas.com
SGS - HK	SGS Hong Kong Ltd. 4/F On Wui Centre, 25 Lok Yip Road, Fanling, N.T., Hong Kong, China	Sarah Wang Sarah-sh.wang@sgs.com Tel: 852-60182983
SGS - GZ	198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663	Kitty Zhang Kitty.Zhang@sgs.com Tel: 86-20-82155601
SGS - Vietnam	Lot III/21, 19/5A Street, Industrial Group III, Tan Binh Industrial Zone, Tay Thanh Ward, Tan Phu District, Ho Chi Minh City, Vietnam	Ngan Thai Ngan.Thai@sgs.com Tel: 84-28 38160999 (ext.193)

Each Brooks approved laboratory is a global testing house. They have different branches or labs in different areas and countries. If you want to use a branch which is not listed, please contact Victor Song: <a href="mailto:Victor.Song@brooksrunning.com">Victor.Song@brooksrunning.com</a>.



# **APPENDIX 2: BROOKS RSL CORRECTIVE ACTION FORM**

Supplier Name & address:	Material/Component/Prod uct description:	Color tested:	Laboratory tested:					
Contact person name, phone & email:	Test Report No & Date tested:	Failure parameter & result:	Brooks Requirements:					
Factory Supplied to & Quantity Sup	plied:							
Why is this chemical used in your p	process?							
Were you aware that this chemical	was in the Brooks RSL?							
What is your corrective action plan & schedule, including how to prevent failures in future, the material replacement or production process change to ensure Brooks RSL compliance?								
Who will be responsible to manage the action plan and communicate back to Brooks, including material vendor and related factories?								
Signature:	Date:							
Submit form to: victor.song@broc	oksrunning.com							

By signing this form, the Supplier acknowledge that their material or process has been found to be noncompliant to Brooks RSL and that they will implement the documented corrective action. The Supplier is responsible for retesting costs to ensure the corrective action is being sustained.



# APPENDIX 3: SUBSTANCES OF VERY HIGH CONCERN (SVHC) LIST

Brooks expects all suppliers to comply with all applicable laws of the countries in which we distribute Brooks products. Below we provide a reference guide of certain laws and guidelines, but we do not represent that this is an exhaustive list. You are responsible for knowing the laws and regulations about the manufacturing and production processes you use.

- REACH SVHC: <a href="http://echa.europa.eu/web/guest/candidate-list-table">http://echa.europa.eu/web/guest/candidate-list-table</a>
- Prop 65 and applicable consent decrees (footwear)



#### **APPENDIX 4: BROOKS CHEMICAL REGISTER FORM**

List all chemicals used in any component or finished Brooks product in the form on the following page. You are responsible for updating this list with any changes and sending a copy to Brooks with any updates or new information once a quarter at least. All chemicals must be identified and listed in the form and must be tested or verified to ensure MRSL compliance, including ink, paint, pigment, solvent, primer, cleaner, adhesive, dye, dye related chemicals, leather tanning chemicals, outsole and midsole related raw chemicals and other chemicals. Suppliers are responsible for all subcontractors' chemical register forms, chemical traceability and have to provide all documents when requested.

BROOKS CHEMICAL REGISTER FORM	MICAL REGI	STER FORM								
Factory Name & Location:	ocation:									
Quarterly Checked by & Date:	d by & Date:									
Chemical Name	Color & State	Category (ink, Adhesive)	Use Purpose	MSDS (Y/N)	Potent ial Risk	Complies with MRSL?	Claim	Valid Document #	Chemical Supplier Name & Location	Brooks Comments

# **APPENDIX 5: BROOKS TEST REQUEST FORM**

Test Lab:		Submit Date:			
☐ Footwear	Accessory & g	gear	Apparel		
Supplier Information					
Vendor Name:					
Supplier Address:					
Contact Person:		Email:			
TEL:		FAX:			
Invoice to:					
Sample Information					
Sample Description:		Color:			
Finished Product Factory Name:					
Product Category  Adults	Kids				
Testing Information (Material Tes					
☐ Natural Fibers	Synthetic Fibe	ers	Blends		
Polymer	Rubber		☐ Natural Leather		
Synthetic Leather	☐ Ink, Paint & P	igment	Chemical, Solvent adhesive & Primer		
Paper Insole	Packaging		Coating & Printed Textile		
Testing Information (Individual T	est)				
AZO Dyes Disperse/Car		cinogenic Dyes	☐ Ph Value		
PCP/TePC	Total Metals		Extractable Metals		
Chromium VI	Nickel - Relea	ise	☐ DMFu		
Formaldehyde	AP, APEO		Organotin Compounds		
☐ Phthalates	PVC		Nitrosamines		
Pesticides	PAHs		VOCs		
☐ PFOS, PFOA	Flame Retard	ants	Acetophenone		
2-phenyl-2-propanol					
Test Type: First Test Re	etest (Previous Re	port No.:			
<b>Service Requested</b> (Working days receipt)	•	Remark: All test	reports should be copied to bksrunning.com		
Regular: 5 working days Express: 3 working days (surch	arge)				