

BESTE S.p.A. Detox Commitment

DATE: 12 05 2016

In line with BESTE S.p.A. 's long-term sustainability program **BESTE S.P.A.** recognizes the urgent need for

- a) eliminating all releases of all hazardous chemicals (1)
- b) new responsible business models (12) and resource stewardship

According to its approach based on prevention (2) and the Precautionary Principle (3) **BESTE S.P.A.** is committed to

- i - zero discharges (4) of all hazardous chemicals into the environment
- ii – reducing and maintaining complete supply chain priority resource use within equitable and planetary limits

associated with the making and using of all products **BESTE S.P.A.** produces and / or sells (5) by no later than 01 January 2020.

We recognize that to achieve this goal,

- mechanisms for disclosure and transparency about the hazardous chemicals used in our global supply chains are important and necessary, and should be in line with the 'Right to Know principle' (6).
- production and consumption business model changes, that revolutionise the design and systems of consumption and living , are required, including a system shift to more comprehensive Extended Producer Responsibility (11) that is based on slow, closed loop, resource constrained and non toxic manufacturing.

BESTE S.P.A. also commits to fully and publicly support systemic (i.e. wider societal and policy) change to achieve zero discharges (4) of hazardous chemicals (associated with supply chains and the lifecycles of products) within one generation (7) or less. This commitment includes sustained investment in moving industry, government, science and technology to deliver on systemic change and to affect system change across the industry towards this goal, recognising that this will/may require resource quotas, hazardous chemical and selected virgin material taxes/ fees.

BESTE S.P.A. agrees to publicly support efforts to eliminate all global hazardous chemical use, and to fully integrate the precautionary principle and the public's right-to-know regarding all environmental aspects across our operations.

BESTE S.P.A. acknowledges our individual corporate responsibility to always operate with a strong system of environmental oversight of our suppliers and our operations.

This commitment, as well as the individual action plan - and the links to the evidence supporting the delivery for all aspects of this commitment no later than the delivery dates indicated within this commitment –will always be available to the global public via our main public webpage.

BESTE S.P.A. understands the scope of the commitment to be a long term vision – with ongoing ambitious practices including the following individual action plan:

Individual action plan

1. Supply-chain disclosure

In line with **BESTE S.P.A.** 's commitment to the public's 'right to know' the chemical substances used within its global supply-chain and the products it sells, **BESTE S.P.A.** will be taking the following actions:

1. publish our company (updated) 'Combined' or 'Manufacturing' 'Restricted Substances List (MRSL)' (RSL including manufacturing and product restricted substances) containing detection limits (4) on the same date as the publication of this commitment, and annually thereafter update this MRSL to reflect our full implementation of the precautionary principle and always applying the best current technology – i.e. the lowest reporting limits technology can achieve.
2. begin with the detailed public disclosure of discharges of hazardous chemicals based on reported quantities of releases of hazardous chemicals to the environment, facility by facility, year by year, made available in a searchable, online and international database/platform.

The list of chemicals to report on in this database should begin with, at least, the 11 priority chemical groups (as per endnote 8) and detection limits (as per our company MRSL) and always applying the best current technology (as per endnote 4) in its supply chain via full facility transparency (i.e. detailed location and individual data of each facility) and disclosure of chemical-by-chemical use and discharges data, beginning with the following actions:

- i) By no later than 2 months after commitment, we will also publish the full testing evidence of at least 50 % of all our global wet process suppliers' facilities or affiliates where hazardous chemicals are used, and will disclose

their discharge data (as per full scope and content of our MRSL) by using the online platform of the Institute for Public and Environmental Affairs and the Detox discharge data template (IPE Detox Platform) or equivalent.

ii) By no later than 6 months after the publication of this commitment, we will also publish the full testing evidence of at least 80 % of our global wet process facilities or affiliates where hazardous chemicals are used (prioritizing additional suppliers in the "global south"), and will disclose their discharge data (as per full scope and content of our MRSL) by using the IPE Detox Platform (or equivalent).

iii) By no later than 6 months after commitment, 80% of our wet process suppliers, facilities or affiliates, where hazardous chemicals are used (as per i) and ii) above), will be publicly associated to our company,

iv) **BESTE S.P.A.** agrees to always ensure the discharge data disclosure is fully credible and reflects the MRSL and that we will always disclose via the IPE Detox Platform (or equivalent digital and public platform).

2. 11 priority hazardous chemical groups elimination policy

Fully aligned with our implementation of the precautionary principle across all of our environment-related operations, we recognise the intrinsic, or potential intrinsic hazardous properties of all 11 priority hazardous chemical groups (as per endnote 8), and therefore acknowledge it is our priority to eliminate the use and discharge of these chemicals into the environment across our global supply chain and our operations. There are multiple supply-chain pathways for potential contamination (including chemical formulations) and we will enhance both training and auditing of our supply-chain and our operations to prevent that any of these chemicals enter into our supply chain via undocumented contamination of chemical supplier formulations.

In line with our elimination policy, **BESTE S.P.A.** will enforce its ban on the 8 of the 11 priority hazardous chemical groups (as per endnote 8) , specifically Phthalates, Brominated and chlorinated flame retardants, Azo dyes, Organotin compounds, Chlorobenzenes , Chlorinated solvents, Chlorophenols, and Short chain chlorinated paraffins , with the following actions:

- i. publish the results of an investigation and the full testing evidence into the current compliance to this requirement and reporting the findings to the public and

- ii. strengthening our supplier contract language to ensure only chemical formulations free of these priority hazardous chemical groups are utilized and
- iii. work with our supply chain and other global industry leaders, to ensure the most current technological limits of detection are reflected via the lowest detectable limits within our testing regimes and
- iv. publicly document how each of the 8 priority hazardous chemical groups have been substituted by safer alternatives and publish these case studies via the online platform subsport.org by no later than 6 months after commitment

3. Alkyl phenols & their ethoxylates (APEOs) elimination policy

Consistent with the precautionary principle and the potential intrinsic hazardous properties of all APEOs, **BESTE S.P.A.** commits to eliminate any APEOs used in any of the products **BESTE S.P.A.** produces and/or sells. The elimination of all APEOs used by any of the products we produce or sell will be supported by:

- i. Enforcing the elimination of APEOs by strengthening our supplier contract language to ensure only APEOs-free chemical formulations are utilized;
- ii. Establishing a rigorous system of control to ensure that no traces of APEOs find their way into our supply chain in line with the above;
- iii. Publishing the results of an investigation and the full testing evidence into the current compliance to this requirement and reporting the findings to the public by no later than **2 months** after commitment
- iv. Work with our supply chain and other global industry leaders, to ensure the most current technological limits of detection are reflected via the lowest detectable limits within our testing regimes;
- v. Publicly document how APEOs have been substituted by safer alternatives and publish these case studies via the online [Subsport.org](https://subsport.org) platform (or equivalent) by no later than **2 months** after commitment.

4. PFCs - Perfluorocarbon / Polyfluorinated Compounds (as per endnote 9) elimination policy

Consistent with the precautionary principle and the potential intrinsic hazardousness of all PFCs, **BESTE S.P.A.** aims to eliminate any PFCs used in any of the products **BESTE S.P.A.** produces and/or sells across our global- supply chain by one year after the commitment. The elimination of all PFCs used by any of the products we produce or sell will be supported by:

- i. Publishing the results of an investigation and the full testing evidence into the current compliance to this requirement and reporting the findings to the public by no later than by one year after the commitment;
- ii. Strengthening our supplier contract language to ensure only chemical formulations free of PFCs are utilized and establish a rigorous system of control to ensure that no traces of PFCs find their way into our supply chain in line with the above;
- iii. Document how PFCs have been substituted by safer alternatives and publish these case studies via the online Subsport.org platform (or equivalent) by no later than by one year after the commitment;
- iv. Work in partnership with our supply chain and other global industry leaders to accelerate the move to non-PFC technologies.

5. Targets for Other Hazardous Chemicals

As an important part of our implementation of the precautionary principle, **BESTE S.P.A.** commits to regularly review (as per hazardous chemical screening methodology in annex 1) the list of chemicals used in our operations and our global supply-chain, and our MRSL. **BESTE S.P.A.** will apply the latest scientific findings to update our chemical policy, at least annually, to further restrict or ban chemicals, as new evidence on their impact becomes available.

In line with the Right-to-Know principle we will deliver full public availability and transparency of our restricted substance lists ,the hazardous chemical screening methodology used and audit process.

In this context we will also set clear intermediate progress targets on the elimination of hazardous chemicals beyond the 11 priority hazardous chemical groups, including a public hazardous chemical-by-chemical schedule for elimination and substitution with non-hazardous chemistry by no later than **6 months** after commitment. This will support our long-term road to elimination of all hazardous chemical use by no later than 01 January 2020. This public detailed hazardous chemical-by-chemical schedule will be updated annually.

6. Responsible Design and Consumption or Living (via Extended Producer Responsibility)

BESTE S.P.A. will implement a Responsible Design and Consumption or Living policy and system (12) based on comprehensive Extended Producer Responsibility (EPR) (11) that will

i. conduct an analysis of the potential economic value of their waste/end-of-life (clothing and textiles) and/or returned products and materials as soon as possible and by no later than **2 months** after commitment.

ii. developing an ERP system that drives product and process design change, taking the responsibility to supply information on the environmental properties of the products we manufacture and publicly documenting with our business customers, and the final consumer the recyclability and durability of the products, by not later than 31 December 2016. At the same time we will adopt a closed loop approach for the waste generated by our production processes, ensuring and documenting that at least 70% of the waste materials will be recycled or reused either internally or by other companies or industries by no later than December 2016.

iii. initiate a global "sustainable consumption and living " system to encourage and enable customers/users to purchase and/or use products in ways compatible with the Responsible Design and Consumption or Living business model (12) - **BESTE S.P.A.** as an upstream producer that does not sell directly to the final consumer – is committed to:

- a) Incentivize our business customers to adopt a closed slow-loop approach and cooperate with washing and caring programs launched by customers – for example via pilot projects on upcycling, recycling (13) and repurposing products with the goal of having at least one project launched by 18 months after the commitment.
- b) Provide long-lifespan guarantees to final consumers and care and repair guidelines on all products we produce and sell by no later than 31 December 2016.
- c) If your company is, or will, be supplying dyeing, cleaning or other activities that are a source of potential downstream contamination with Hazardous chemicals (including providing recycled materials), monitor and share information on hazardous chemicals as well as provide tools (labelling etc) that enable full traceability of any chemicals still in transition to elimination to allow for separation at end-of – life and avoid further contamination of future closed loop activities eg recycling.

iv. raise 'consumer' awareness and change attitudes and demands/ expectations regarding modes of use and ownership of clothing and the need to work towards eliminating " linear/non circular" and "disposable" (designed for short lifespan) products. For example by advertising / education pilot projects and campaigns for shaping and training new 'social practice' (building skills and functional

understanding (14) beyond just providing more information) by no later than 18 months after the commitment

v. **BESTE S.P.A.**, as an upstream producer that does not sell directly to the final consumer, is also committed to collaborate with take back programs (15) developed by our business customers, whenever relevant to our activities.

7. Self reporting on the Detox Commitment

BESTE S.P.A. delivers a full public schedule of evidence supporting the delivery of each and every component of this Detox commitment by no later than the date indicated in this Detox commitment. The core responsibility principles for delivering on our commitment are:

i) **BESTE S.P.A.** will always proactively provide the public precise schedules for all our detailed and credible evidence (e.g. all hazardous chemical testing via the use of our company MRSL) supporting the delivery of all aspects of our Detox commitment.

ii) **BESTE S.P.A.** is responsible to proactively, publicly and transparently provide full details as to any deviations from the delivery of any aspect of our Detox commitment, and to effectively resolve within no more than 30 days.

Endnotes:

(1) All hazardous chemicals means all those that show intrinsically hazardous properties: persistent, bioaccumulative and toxic (PBT); very persistent and very bioaccumulative (vPvB); carcinogenic, mutagenic and toxic for reproduction (CMR); endocrine disruptors (ED), or other properties of equivalent concern, (not just those that have been regulated or restricted in other regions).

(2) This means solutions are focused on elimination of hazardous chemical use at source, not by end-of-pipe techniques or via risk management. This requires either substitution with non-hazardous chemicals or where necessary finding non-chemical alternative solutions, such as re-evaluating product design or the functional need for chemicals.

(3) This means taking preventive action before waiting for conclusive scientific proof regarding cause and effect between the substance (or activity) and the damage. It is based on the assumption that some hazardous substances cannot be rendered harmless by the receiving environment (i.e. there are no 'environmentally acceptable'/ 'safe' use or discharge levels) and that prevention of potentially serious or irreversible damage is required, even in the absence of full scientific certainty. The process of applying the Precautionary Principle must involve an examination of the full range of alternatives, including, where necessary, substitution through the development of sustainable alternatives where they do not already exist.

(4) Zero discharge means elimination of all releases, via all pathways of release, i.e. discharges, emissions and losses, from our supply chain and our products. "Elimination" or "zero" means 'not detectable, to the limits of the best current technology', and only background levels of naturally occurring substances are acceptable.

(5) This means the commitment applies to the environmental practices of the entire company (group, and all entities it directs or licences) and for all products produced or sold by **BESTE S.P.A.** or any of its subsidiaries. This includes all its suppliers or facilities horizontally across all owned brands and licensed companies as well as vertically down its supply chain.

(6) Right to Know is defined as practices that allow members of the public access to environmental information – in this case specifically about the uses and discharges of chemicals based on reported quantities of releases of hazardous chemicals to the environment, chemical-by-chemical, facility-by-facility, at least year-by-year.

(7) One generation is generally regarded as 20-25 years.

(8) the 11 priority hazardous chemical groups are : 1. Alkyl phenols & their ethoxylates (APEOS) 2. Phthalates 3. Brominated and chlorinated flame retardants 4. Azo dyes (that release carcinogenic amines through reductive cleavage) 5. Organotin compounds 6. Per- and poly-fluorinated chemicals 7. Chlorobenzenes 8. Chlorinated solvents 9. Chlorophenols 10. Short chain chlorinated paraffins 11. Heavy metals such as cadmium, lead, mercury and chromium (VI).

(9) Polyfluorinated compounds, such as fluorotelomers, can serve as precursors that degrade to form perfluorinated carboxylic acids, e.g. PFOA

(11) Extended and Producer Responsibility is individual and global company responsibility to ensure the whole lifecycle of a product and the delivery of a function (from sourcing and design to use, re-use and recycling or final decontamination and treatment):

- protects the well-being of the natural environment, stays within planetary boundary limits and supports the socio-economic well-being of workers and local communities;
- ensures the system for end-of-life collection achieves high use of product and material quality through effective collection, disassembly and re-use or recycling;
- ensures the system for reuse (or any life-extension of the product), recycling and final treatment incentivises changes in design by the product designer both financially , through internalization of the real own-brand/ differentiated end-of-life costs into the company business model, and through information feedback, including to other actors in the extended life-cycle;
- includes supporting and implementing fully circular resource use and full resource stewardship (recognizing that natural resources are not 'owned' but 'borrowed' to meet a need).

(12) Responsible Design and Consumption or Living business models – are systems of products and services that are designed to deliver functions to meet needs, integrating full circularity and EPR (as defined above). These systems include a comprehensive process for identifying all lifecycle aspects, considering the most responsible design, production, product use and closed-loop reuse and recycling, aiming to maximize the use of closed-loop and slow-loop manufacturing and value creation. Closed loop systems should give preference to local solutions where possible.

(13) Detox approach on recycling and precautionary hazardous chemical management is:

1. All raw materials (including secondary raw materials) should, in principle, meet the same chemical regulations/requirements – avoid and phase out SVHC and Detox MRSL identified hazardous chemicals.
2. No intentional use of SVHC or Detox identified chemicals for 2020 phase out (eg as on best practice Detox MRSLs), wich means:

3. Monitor for hazardous contamination (ie regular testing of material for hazardous chemicals – at least the most common ones and periodically screening wider eg on those on the Detox MRSL – same method as section 2 Detox commitment).

(14) including understanding of clothing also as functions of self-expression, identity, status etc

(15) Take-back programmes shall enable high use of products and materials in the form of re-use and recycling through effective collection maintaining or upgrading material quality. Un reusable or recyclable materials should be sent to decontamination or environmentally-sound treatment. Take-back programmes shall ensure the products are taken back to and by the original producer or the retailer and return to their legal ownership, to ensure that full financial incentives are created to find better value options for the reuse of these materials. Programmes shall ensure that collected articles and materials are not being exported to any location where there is no equivalent re-collection and reuse/recycling system in place in order to avoid single re-use and landfill and incineration in, inter-alia, East EU or Africa.

Annex 1 - Detox hazardous chemical screening methodology:

Any hazardous chemical screening methodology should include (but not be limited to) the following requirements

- 1) Has a hazard based approach without use of any 'risk based' criteria for excluding certain chemicals.

- 2) The hazard approach should include a broad range of hazardous categories, ie at least those considered under EU REACH regulation.
- 3) Make use of a wide range of sources of information (eg at least all publically available information).
- 4) Make use of cautious thresholds in hazardous criteria setting (ie at least those used under best practice regulation and conventions)
- 5) Incorporate ongoing assessment of the effectiveness of the screening tool at identifying hazardous substances (eg by comparison of screening outcome with other forms of assessment for a sub-set of chemicals)
- 6) The full criteria and methods applied and full data behind results must be open to public scrutiny, including the types of hazardous property which must be evaluated and any thresholds used as well as full transparency on the information sources used to assess hazard
- 7) The screening methodology approach must take account of the hazards of accessory chemical and/ or breakdown products which are generated through the use or release of any one particular chemical ingredient.
- 8) The screening methodology must recognise the importance of physical form e.g. nanomaterials, polymers and whole products where applicable.
- 9) Where there are legitimate reasons for concern regarding the intrinsic hazards of a chemical, even if information is insufficient to verify those hazards, action must be taken to obtain sufficient information to enable adequate assessment of the chemical. When there is no information on the chemical the 'hazardous until proven non-hazardous' assumption should apply. This includes making assessments on a chemical group basis, drawing on information for closely related chemicals