Fabric Care Products
Key Performance Indicators

Version 05.01

THESIS
BY THE SUSTAINABILITY CONSORTIUM

About the Fabric Care Products Key Performance Indicators

This THESIS Performance Assessment covers liquid, gel, and solid formulated products used for treating textiles in applications other than washing. This includes, but is not limited to, dryer sheets, deodorizers, wrinkle releasers, and spray starch. It does not include laundry detergent, fabric softener, or air fresheners.
The information you collect for these KPIs should cover your global production and not be specific to any region or buyer (e.g., retailer).
Remember to download the assessment documents to help you in completing the KPIs. Make sure to review the detailed guidance and resources for each KPI. Your work is saved automatically but not shared until you are ready.

Introduction

The Sustainability Insight System, THESIS, from The Sustainability Consortium (TSC) is a comprehensive and holistic solution for understanding environmental and social performance in consumer goods supply chains. These key performance indicators (KPIs) can be used to assess action, transparency, and continuous improvement on the material sustainability issues for brands, manufacturers, and producers.

TSC created this KPI set using its science-based, multi-stakeholder, and full life-cycle development process. TSC members and partners, including manufacturers, retailers, suppliers, service providers, NGOs, civil society organizations, governmental agencies, and academics, contributed valuable perspectives and expertise.

TSC is a global organization dedicated to improving the sustainability of consumer products that also offers a portfolio of services to help drive effective implementation. For more information please visit www.sustainabilityconsortium.org

Contents

Key Performance Indicators

QUESTION	RESPONSE OPTION
1. Palm Oil, Palm Kernel Oil, and Derivative Ingredient Sourcing What percentage of your palm oil and palm oil-derived ingredients is Certified Sustainable Palm Oil (CSPO) purchased through RSPO book and claim, mass balance, segregated, and identity preserved supply chain models?	**A.** Not applicable. We do not produce or use palm oil, palm kernel oil, or their associated chemically-derived ingredients in our products. **B.** We are unable to determine at this time. **C.** We are able to report the following for our palm oil ingredient supply: **C1.**_____% of our palm oil and palm oil-derived ingredients is from Certified Sustainable Palm Oil (CSPO) purchased through RSPO book and claim. **C2.**_____% of our palm oil and palm oil-derived ingredients is from Certified Sustainable Palm Oil (CSPO) purchased through RSPO mass balance. **C3.**_____% of our palm oil and palm oil-derived ingredients is from Certified Sustainable Palm Oil (CSPO) purchased through RSPO segregated. **C4.**_____% of our palm oil and palm oil-derived ingredients is from Certified Sustainable Palm Oil (CSPO) purchased through RSPO identity preserved.
2. Greenhouse gas – Supply chain What percentage of ingredients used in your final product, by total spend, was produced by suppliers that reported their annual Scope 1 and 2 greenhouse gas emissions?	**A.** We are unable to determine what percentage of our ingredients, by total spend, was produced by suppliers that reported their annual scope 1 and 2 greenhouse gas emissions in the last twelve months. **B.** _____% of our ingredients, by total spend, was produced by suppliers that reported scope 1 and 2 greenhouse gas emissions in the last twelve months. **C.** We have set goals to reduce our scope 3 greenhouse gas emissions. We track, and publicly disclose, our scope 3 emissions.
3. Water use – Formulation raw material suppliers What percentage of the ingredients used in your final product, by total spend, was produced by suppliers that reported their annual water use?	**A.** We are unable to determine the percentage of our ingredients, by total spend, that was produced by suppliers that reported their annual water use. **B.** _____% of our ingredients, by total spend, was produced by suppliers that reported their annual water use in the last 12 months.
4. Worker health and safety - Supply chain How did your organization manage worker health and safety risks in the operations that produced your raw material supply?	**A.** We are unable to determine at this time. **B.** We are able to report the following for our supply: **B1.**_____% of our raw material supply, by mass, was produced in operations that have performed a risk assessment to identify high-risk areas for health and safety. **B2.**_____% of our raw material supply, by mass, was produced in operations that train workers on health and safety procedures. **B3.**_____% of our raw material supply, by mass, was produced in operations that implement a verifiable worker health and safety plan. **B4.**_____% of our raw material supply, by mass, was produced in operations that have a worker health and safety performance monitoring system in place. **B5.**_____% of our raw material supply, by mass, was produced in operations that were audited in the last three years on worker health and safety issues.
5. Worker Health and Safety - Manufacturing What was the injury and illness rate at company-owned or contract manufacturing facilities that produced your final product?	**A.** We are unable to determine at this time. **B.** Our injury and illness rate was: **B1.**_____. **B2.**_____% of our product, by revenue, is represented by the number reported above.
6. Chemical footprint Does your organization measure its chemical footprint?	**A.** We do NOT measure our own chemical footprint and we are NOT engaged in a program to reduce the use of chemicals on the stewardship list. **B.** We measure our chemical footprint. **C.** We participate in the Chemical Footprint Project or another external program. **D.**We publicly disclose our chemical footprint.

7. Formulation - Chemical selection Have you assessed your formulations for the presence of chemicals on the stewardship list?	**A.** We have NOT assessed our formulations for the presence of chemicals on the stewardship list. **B.** We have assessed our formulations for the presence of chemicals on the stewardship list. **C.**_____% of our products in this category, by number, have intentionally added formulation ingredients that are on the stewardship list. If a chemical is listed with a specific exposure, for the purpose of this response option, the chemical should be included even if the specified exposure is NOT relevant to the consumer during product use. **D.**_____% of our products in this category, by number, have intentionally added formulation ingredients that are on the stewardship list. If a chemical is listed with a specific exposure that is NOT relevant to the consumer during product use, for the purpose of this response option, the chemical should NOT be included.
8. Ingredient disclosure to manufacturers What level of raw material disclosure does your organization require from suppliers?	**A.** We require that ONLY a safety data sheet accompany all purchased raw materials and ingredients. **B.** We require a list from our suppliers of all substances intentionally added to ingredients or raw materials. **C.** We ensure that our suppliers identify in the composition of all raw materials and ingredients any intentionally added chemicals on the stewardship list and incidental chemicals and known contaminants. **D.** We require from our suppliers that a list accompany all procured raw materials identifying all chemicals on the stewardship list that are reasonably expected to be present at 100 ppm, whether intentionally added or not, and we verify this information by internal testing methodologies or additional research. **E.** We require from our suppliers that a list accompany all procured raw materials identifying all chemicals on the stewardship list that are reasonably expected to be present at detectable levels, whether intentionally added or not, and we verify this information by internal testing methodologies or additional research.
9. Risk assessment and product safety How does your organization address the safety of your products using chemical risk assessment?	**A.** We do NOT address product safety beyond legal and regulatory compliance. **B.** We use best in class authoritative and science-based human health risk assessment methodologies to screen all of our laundry care ingredients and our final products, to ensure an acceptable margin of safety. **C.** We participate in on-going research to advance the science of product safety and risk assessment. **D.** We ensure adequate microbiological protection of our products. **E.** We have systems in place for postmarket safety surveillance. **F.** We disclose the following information on our website: **F1.**Details of our risk assessment methodologies. **F2.**Full risk assessments of our ingredients and final products. **F3.**Details of our postmarket safety surveillance strategy. **F4.**Results of our postmarket safety surveillance.
10. Packaging – Recycle Labeling What percentage of the sales packaging for your final product was labeled for recycling according to an established standard?	**A.** Not applicable. We do not use sales packaging for our product. **B.** We are unable to determine at this time. **C.** We are able to report the following for the sales packaging used for our final product: **C1.**_____% of our packaging, by units sold in the US and Canada, was labeled with How2Recycle. **C2.**_____% of our packaging, by units sold in regions outside the US and Canada, was labeled with an established third-party recycling label.
11. Product Certifications What percentage of your product, by sales, has the following certifications?	**A.** We are unable to determine at this time. **B.** The following percentage of our product, by sales, was certified: **B1.**_____% of our product is Cradle to Cradle Certified™. **B2.**_____% of our product is EPA Safer Choice Certified. **B3.**_____% of our product is EWG VERIFIED™.

12. Ingredient disclosure - Business to consumer For what percentage of your products, by units sold, does your organization disclose ingredient information to consumers?	**A.** We are unable to determine at this time. **B.** We publicly disclose ingredient information for the following percentages of our products: **B1.**_____% have ingredient identity disclosed online or via telephone. **B2.**_____% have ingredient identity disclosed on-label. **B3.**_____% have ingredient functionality disclosed.
13. Product formulation - Cold wash cycle What percentage of your laundry detergents, by revenue, is specifically formulated for use with the cold wash setting of washing machines, or ambient water temperatures, and includes instructions for cold wash cycle use, in regions where relevant?	**A.** Not applicable. We do not manufacture laundry detergents. **B.** We are unable to determine at this time. **C.** The following percentage of our laundry detergents, by revenue, was specifically formulated for use with the cold wash setting of washing machines, or ambient water temperatures, and includes instructions for cold wash cycle use, in regions where relevant: **C1.**_____ %.
14. Use phase – Messaging and design How does your organization engage consumers regarding energy reduction, water consumption, or product waste?	**A.** For products in this category, we have NOT conducted an on-pack, web-based, or media educational campaign in the last twelve months to inform consumers regarding the reduction of energy, water consumption, or product waste. **B.** For products in this category, we have conducted an on-pack, web-based, or media educational campaign in the last twelve months to inform consumers regarding the reduction of energy, water consumption, or product waste. **C.**For products in this category, we measure and track the reach of our communications through consumer surveys or other market research. **D.** For products in this category, we develop and market products that are designed to reduce energy, water consumption, or product waste during consumer use phase.

Key Performance Indicators with Guidance

1. PALM OIL, PALM KERNEL OIL, AND DERIVATIVE INGREDIENT SOURCING

Question	Response Options	Points	Rules
What percentage of your palm oil and palm oil-derived ingredients is Certified Sustainable Palm Oil (CSPO) purchased through RSPO book and claim, mass balance, segregated, and identity preserved supply chain models?	**A.** Not applicable. We do not produce or use palm oil, palm kernel oil, or their associated chemically-derived ingredients in our products.	-	OR B, C
	B. We are unable to determine at this time.	0.000	OR C
	C. We are able to report the following for our palm oil ingredient supply:	-	OR B
	C1. _____% of our palm oil and palm oil-derived ingredients is from Certified Sustainable Palm Oil (CSPO) purchased through RSPO book and claim.	0.250 × %	Multi
	C2. _____% of our palm oil and palm oil-derived ingredients is from Certified Sustainable Palm Oil (CSPO) purchased through RSPO mass balance.	0.500 × %	Multi
	C3. _____% of our palm oil and palm oil-derived ingredients is from Certified Sustainable Palm Oil (CSPO) purchased through RSPO segregated.	0.750 × %	Multi
	C4. _____% of our palm oil and palm oil-derived ingredients is from Certified Sustainable Palm Oil (CSPO) purchased through RSPO identity preserved.	1.000 × %	Multi
		TOTAL POINTS AVAILABLE	**1**

Guidance

Calculation & Scope

Your palm oil supply includes all palm oil, palm kernel oil, and their chemically-derived ingredients purchased or produced for inclusion in your final products. "Chemically-derived ingredients" refers to any material that originated from a chemical reaction that included palm oil or palm kernel oil as a raw material.

Calculate C1 as the mass of your certified palm oil ingredient supply for your products that was purchased through RSPO book and claim (e.g., GreenPalm), divided by the total mass of your palm oil ingredient supply, then multiply by 100.

Calculate C2 as the mass of your certified palm oil ingredient supply for your products that was purchased through RSPO mass balance, divided by the total mass of your palm oil ingredient supply, then multiply by 100.

Calculate C3 as the mass of your certified palm oil ingredient supply for your products that was purchased through RSPO segregated, divided by the total mass of your palm oil ingredient supply, then multiply by 100.

Calculate C4 as the mass of your certified palm oil ingredient supply for your products that was purchased through RSPO identity preserved, divided by the total mass of your palm oil ingredient supply, then multiply by 100.

Perform this calculation using data from a 12-month period that ended within 12 months of the date you respond to this question.

Certifications, Standards & Tools

Consumer Goods Forum Palm Oil Roadmap (CGF - Palm Oil 2021): The Consumer Good Forum (CGF) Palm Oil Roadmap is a guide for companies implementing their own policies and practices for sourcing palm oil more sustainably and achieving deforestation reduction goals.

https://www.theconsumergoodsforum.com/wp-content/uploads/2017/09/20150810-Sustainable-Plam-Oil-Sourcing-Guidelines-Final-Version-1.pdf

GreenPalm - Certified Sustainable Palm Oil: The GreenPalm trading program allows companies to support RSPO growers and suppliers by allowing them to purchase book and claim certificates of RSPO to offset their use of palm and palm kernel oil.
http://greenpalm.org/

RSPO - Roundtable on Sustainable Palm Oil - Certification: The RSPO certification is a seal of approval ensuring that the palm oil is traceable through the supply chain by certifying each facility that processes or uses it. RSPO was founded on and supports principles for palm oil production including transparency, regulatory compliance, financial viability, natural resource conservation, and continuous improvement.
http://www.rspo.org/about

RSPO supply chain models Book and Claim, Mass Balance, Segregated, and Identity Preserved: The palm oil and palm oil-derived ingredients may go through many production and logistical stages between plantations and the end product. Any individual batch of palm oil and palm oil-derived ingredients can be traded through one of four supply chain models that are approved by RSPO - Book and Claim, Mass Balance, Segregated, and Identity Preserved.
https://rspo.org/certification/supply-chains

Background Information

Palm Oil Innovation Group Charter (2019): The Palm Oil Innovation Group (POIG) Charter supports the group's goals to support innovation and improvements in palm oil plantation management, create value for those using the practices outlined, and be a platform for communication for plantation managers and governments.
http://poig.org/the-poig-charter/

Walmart Sustainability Hub Forest Conservation (Walmart 2021): This website offers resources and guidance to support supplier engagement for deforestation-risk commodities (i.e. beef, cocoa, palm oil, and soy) in the jurisdictional approach to encourage forest conservation in places at highest risk of deforestation.
https://www.walmartsustainabilityhub.com/forest-conservation

Definitions

Chemically-derived ingredients: Any material that originated from a chemical reaction that included palm oil or palm kernel oil as a raw material. Examples of ingredients that may be derived from palm oil or palm kernel oil include, but are not limited to: surfactants such as sodium lauryl sulfate, sodium laureth sulfate, and sodium dodecyl sulphate; emulsifiers such as glyceryl stearate, steareth-20, and cetyl alcohol, as well as emollients such as palmitic acid.

Hotspots Addressed

***7.** Palm oil production - Environmental impacts*

***8.** Palm oil production - Social impacts*

2. GREENHOUSE GAS – SUPPLY CHAIN

Question	Response Options	Points	Rules
What percentage of ingredients used in your final product, by total spend, was produced by suppliers that reported their annual Scope 1 and 2 greenhouse gas emissions?	**A.** We are unable to determine what percentage of our ingredients, by total spend, was produced by suppliers that reported their annual scope 1 and 2 greenhouse gas emissions in the last twelve months.	0	OR B - C
	B. _____% of our ingredients, by total spend, was produced by suppliers that reported scope 1 and 2 greenhouse gas emissions in the last twelve months.	0.777 × (%)	Multi
	C. We have set goals to reduce our scope 3 greenhouse gas emissions. We track, and publicly disclose, our scope 3 emissions.	0.223	Multi
	TOTAL POINTS AVAILABLE	**1**	

Guidance

Calculation & Scope

Scope 1, 2, and 3 emissions are defined by the Greenhouse Gas Protocol Corporate Standard (2015).

Calculate B as the spend on ingredient suppliers for laundry care products sold that reported scope 1 and 2 greenhouse gas emissions, divided by total spend on all ingredient suppliers for laundry care products sold, then multiply by 100.

Perform this calculation using data from a 12-month period that ended within 12 months of the date you respond to this question.

Reporting can occur through public disclosure or private disclosure from the supplier to your organization directly or through another party.

If suppliers responded to the most recent CDP Climate Change questionnaire you may refer to each supplier's CDP Climate Change responses (in the 2021 questionnaire, refer to questions C6.1: Scope 1 Emissions Data and C6.3: Scope 2 Emissions Data to determine if they report emissions).

For C, public disclosure must have occurred within 12 months of the date you respond to this question. Resources that can be used to establish and track greenhouse gas reduction goals include, but are not limited to, the Greenhouse Gas (GHG) Protocol Corporate Standard and GRI Performance Indicators.

Certifications, Standards & Tools

CDP Climate Change Questionnaire: The CDP Climate Change Questionnaire provides questions that assess a company's greenhouse gas emissions, goals, and management. The report provided by CDP provides the overview of the results from companies responding to the request.
https://www.cdp.net/en/guidance/guidance-for-companies

Greenhouse Gas (GHG) Protocol Corporate Standard: The Greenhouse Gas (GHG) Protocol provides guidance and is a useful resource published by the World Resources Institute with the World Business Council for Sustainable Development as a guide for monitoring and accounting for greenhouse gas emissions.
https://ghgprotocol.org/corporate-standard

Greenhouse Gas Protocol: Calculation Tools: This site provides a list of sector toolsets developed by GHG Protocol, third-party databases, and other tools based on the GHG Protocol standards that can be used to calculate greenhouse gas inventories for use in emissions calculations.
https://ghgprotocol.org/calculation-tools

GRI G4 Sustainability Reporting Guidelines: The GRI G4 Sustainability Reporting Guidelines provide a standard set of metrics for companies to report on material environmental, social, and economic impacts, actions, and outcomes.
https://www.globalreporting.org/standards/

Background Information	**The Global Reporting Initiative:** The Global Reporting Initiative provides guidance globally on sustainable reporting standards. https://www.globalreporting.org/how-to-use-the-gri-standards/resource-center/
Definitions	**Goals:** Goals should be specific, measurable, achievable, relevant, and time-bound. **Greenhouse gas:** Gases that contribute to the greenhouse effect by absorbing infrared radiation in the atmosphere, e.g., carbon dioxide, methane, nitrous oxide, ozone, and chlorofluorocarbons. **Public disclosure - Home and Personal Care:** Voluntary corporate reporting, sustainability reporting programs, or reporting as part of regulatory compliance.
Hotspots Addressed	***4.*** *Feedstock consumption - Chemical production* ***5.*** *Electricity consumption - Organic chemical manufacturing* ***6.*** *Fossil fuel combustion - Chemical plant operation*

3. WATER USE – FORMULATION RAW MATERIAL SUPPLIERS

Question	Response Options	Points	Rules
What percentage of the ingredients used in your final product, by total spend, was produced by suppliers that reported their annual water use?	**A.** We are unable to determine the percentage of our ingredients, by total spend, that was produced by suppliers that reported their annual water use.	0	OR B
	B. _____% of our ingredients, by total spend, was produced by suppliers that reported their annual water use in the last 12 months.	1 × (%)	OR A
	TOTAL POINTS AVAILABLE	**1**	

Guidance

Calculation & Scope

Calculate B as the total spend on ingredient suppliers for your laundry care products sold that reported their annual water use, divided by the total spend on all ingredient suppliers for your laundry care products sold, then multiply by 100.

Perform these calculations using data from a 12-month period that ended within 12 months of the completion date of this questionnaire.

Supplier water use reporting can occur through public disclosure or private disclosure from the supplier to your organization directly or through another party.

If suppliers completed CDP's Water Security 2021 Questionnaire you may refer to W1.2b and W1.2h: Company-Wide Water Accounting or W5.1a: Facility-Level Water Accounting to determine if they report water use.

Certifications, Standards & Tools

CDP Water Information Request: The CDP Water Information Request provides questions that assess a company's water use, goals, and management. The report provided by CDP provides the overview of the results from companies responding to the request. CDP can be contacted to respond to the Water Information Request.
https://www.cdp.net/en/guidance/guidance-for-companies

GRI G4 Sustainability Reporting Guidelines: The GRI G4 Sustainability Reporting Guidelines provide a standard set of metrics for companies to report on material environmental, social, and economic impacts, actions, and outcomes.
https://www.globalreporting.org/standards/

Definitions

Public disclosure - Home and Personal Care: Voluntary corporate reporting, sustainability reporting programs, or reporting as part of regulatory compliance.

Water use: Water use is defined as total withdrawals from municipal and private water providers, surface water, groundwater, or wells.

Hotspots Addressed

***3.** Water use - Chemical plant operation*

4. WORKER HEALTH AND SAFETY - SUPPLY CHAIN

Question	Response Options	Points	Rules
How did your organization manage worker health and safety risks in the operations that produced your raw material supply?	**A.** We have measured our GHG intensity and are able to report the following:	0	OR
	B. We are able to report the following for our supply:		
	B1._____% of our raw material supply, by mass, was produced in operations that have performed a risk assessment to identify high-risk areas for health and safety.	0.2 × (%)	Multi
	B2._____% of our raw material supply, by mass, was produced in operations that train workers on health and safety procedures.	0.2 × (%)	Multi
	B3._____% of our raw material supply, by mass, was produced in operations that implement a verifiable worker health and safety plan.	0.2 × (%)	Multi
	B4._____% of our raw material supply, by mass, was produced in operations that have a worker health and safety performance monitoring system in place.	0.2 × (%)	Multi
	B5._____% of our raw material supply, by mass, was produced in operations that were audited in the last three years on worker health and safety issues.	0.2 × (%)	Multi
	TOTAL POINTS AVAILABLE	**1**	

Guidance

Calculation & Scope

To be included in B1-B5, risk assessments, training programs, safety plans, performance monitoring systems, and audits must be verifiable and address health and safety issues such as worker injury and worker exposure to harmful elements. The assessments and audits must be conducted by second or third parties. The risk assessment must be conducted once per year while the audit must have been conducted at least once every three years, both using a standard based on internationally-recognized principles such as International Labour Organization Occupational Safety and Health Conventions (e.g., No. 155). The standards and websites listed in Background Information below may be helpful for conducting your risk assessment(s) and for understanding appropriate corrective actions, which can inform your responses. See the Certifications, Standards & Tools for examples of initiatives that meet these requirements.

Calculate B1 as the mass of your raw material supply that came from operations that have performed a risk assessment to identify high risk areas for health and safety, divided by the total mass of your raw material supply, then multiply by 100.

To determine if an operation is high risk for health and safety, you may utilize a country risk analysis tool. The tool should measure the strength of a country's ability to govern and enforce laws, regulations, and internationally recognized principles. The country risk assessment may be a first party systematic review assessment, or external risk analyses tools may be utilized. It must be conducted at least once per year. The country risk assessment can be complemented with risks associated with specific activities, regions, and suppliers.

Calculate B2 as the mass of your raw material supply that came from operations that train workers on health and safety procedures, divided by the total mass of your raw material supply, then multiply by 100. To be included in B2, the training on health and safety procedures must be available in the language of the employee, including migratory and seasonal workers, and must be renewed as appropriate to maintain competency and implementation of good practices for workers on health and safety procedures and to prevent training exhaustion. Additional worker training may be required to perform job duties. On-site audits, where necessary, should be conducted by second or third parties and must be conducted at least once every three years using a standard based on internationally-recognized principles.

Calculate B3 as the mass of your raw material supply that came from operations that implement a verifiable worker health and safety plan, divided by the total mass of your raw material supply, then multiply by 100. To be included in B3, a worker health and safety plan must be verifiable and must be available in the language of the employee, including migratory and seasonal workers, and be prominently displayed in the workplace where employees normally report. The plan should include best practices specific to ergonomics; repetitive motions; chemical and particulate exposure; appropriate use of personal protective equipment (PPE); and proper use of tools, machinery, and the handling of animals (if applicable). On-site audits, where necessary, should be conducted by second or third parties and must be conducted at least once every three years using a standard based on internationally-recognized principles.

Calculate B4 as the mass of your raw material supply that came from operations that have a worker health and safety performance monitoring system in place, divided by the total mass of your raw material supply, then multiply by 100. To be included in B4, a worker health and safety performance monitoring system should include metrics on issues including, but not limited to, incidence of worker injuries and prevalence of diseases. On-site audits, where necessary, should be conducted by second or third parties and must be conducted at least once every three years using a standard based on internationally-recognized principles.

Calculate B5 as the mass of your raw material supply that came from operations that were audited in the last three years on worker health and safety issues, divided by the total mass of your raw material supply, then multiply by 100. Audits should be conducted by second or third parties at least once every three years, or more often depending on the requirements of the standard organization. See the Certifications, Standards & Tools for more information. Government regulations or parties in the supply chain may initiate these audits.

To be included in B5, the audits must be verifiable and address preventive measures, freely provided personal protective equipment, identification of worker health and safety hazards and effects on the exposed people, statistics and reasons behind injuries, design of work area, processes, installations, machinery/work equipment, operating processes and work organization, as outlined by internationally-recognized labor principles. Examples include, but are not limited to, principles outlined by the United Nations Global Compact, the International Labour Organization Standards on Occupational Health and Safety.

Perform these calculations using data from a 12-month period that ended within 12 months of the date you respond to this question. Audits must have been conducted in the 36 months prior to the end of the 12-month period.

Certifications, Standards & Tools

GlobalG.A.P. Risk Assessment on Social Practice (GRASP): GRASP is an add-on module for GLOBALG.A.P. developed to assess social practices on the farm, addressing specific aspects of workers' health, safety and welfare, and labor rights.
https://www.globalgap.org/uk_en/for-producers/globalg.a.p.-add-on/grasp/

SA8000® Standard: Social Accountability International (SAI) is a global non-governmental organization that aims to advance human rights at work via the SA8000® Standard. SA 8000 measures social performance in eight areas that are relevant for workplaces in factories and organizations worldwide.
https://sa-intl.org/programs/sa8000/

THESIS Help Center Video: Worker health and safety - Supply chain KPI: Short video tutorial on the Worker health and safety - Supply chain KPI. Use case-sensitive password 'thesis' when prompted.
https://vimeo.com/536528345

Background Information

IS0 26000 Social Responsibility: ISO 2600 is not a certification tool, but it offers guidance about social responsibility to all sorts of organizations regardless of their activity, size or location.
https://www.iso.org/iso-26000-social-responsibility.html

Social Accountability International Guidance Document for Social Accountability 8000: According to Social Accountability International, "this guidance document provides various tools and information for users of the Social Accountability 8000 standard, including definitions, background information, and examples."
https://sa-intl.org/wp-content/uploads/2020/02/SA8000-2014-Guidance-Document.pdf

United Nations Global Compact Human Rights and Business Dilemmas Forum: United Nations Global Compact Human Rights and Business Dilemmas Forum present an introduction to, analysis of, and business recommendations for minimizing social sustainability risks in the supply chain.
https://www.unglobalcompact.org/library/9

Definitions

Corrective actions: Prompt actions taken to eliminate the causes of a problem, thus preventing their recurrence.

First party systematic risk assessment: A first party systematic risk assessment is conducted by the organization itself for management review and other internal purposes and may form the basis for an organization's declaration of conformity.

Risk assessment: A systematic process to evaluate potential risks within an operation, system, or supply chain. It can include an on-site audit by a second party or third party or a country risk classification analysis that judges the site risk due to prevailing conditions, controls, or other mitigating factors.

Second-party audit: An audit conducted by a party having an interest in the organization, such as customers, or by another entity on their behalf.

Third-party audit: An audit conducted by external, independent auditing organizations, such as those providing certification of conformity to a standard.

Verifiable: Having the ability to demonstrate, through a reputable assessor, the truth or accuracy of a claim.

Worker exposure to harmful elements: Contact with potentially harmful chemical, physical, or biological elements that occurs as a result of one's job-related activities. Examples include chronic interaction with chemicals, dusts, radiation, environmental elements, allergens, noise, and vibrations.

Worker health and safety: Worker health and safety consists of worker injury and worker exposure to harmful elements. Please see the corresponding terms.

Worker injury: Physical damage to an individual due to a single act that causes immediate damage or repetitive acts that cause damage over time. Examples of causes of injury include repetitive motions, non-ergonomic motions, damage from use of tools and machinery, falls, and burns.

Hotspots Addressed

***1.** Chemical use - Chemical plant operation*

5. WORKER HEALTH AND SAFETY - MANUFACTURING

Question	Response Options	Points	Rules
What was the injury and illness rate at company-owned or contract manufacturing facilities that produced your final product?	**A.** We are unable to determine at this time.	0	OR
	B. Our injury and illness rate was:		
	B1._____.	-	OR
	B2._____% of our product, by revenue, is represented by the number reported above.	1 × (%)	IF B1

TOTAL POINTS AVAILABLE **1**

Guidance

Calculation & Scope

This question aligns with the United States Occupational Safety and Health Administration (OSHA) Injury and Illness rate. This rate can be normalized for global applicability.

Calculate B1 according to OSHA's injury and illness rate by multiplying the number of recordable injuries and illnesses by 200,000. Divide this number by the total employee hours worked to produce your final product. In order to convert the AISE accident rate, derived from the occupational health and safety indicator #3 found in the AISE Charter, multiply that number by 2x to calculate the requested number. If multiple facilities manufacture the final product, the injury and illness rate will need to be adjusted using a weighted average based on each facility's percentage of total production. Include all employees at a facility that participate in the production of the final product. This includes both full-time and contracted employees.

Calculate B2 as the revenue from your final product for which you were able to obtain data, divided by the total revenue from your final product, then multiply by 100.

Perform these calculations using data from a 12-month period that ended within 12 months of the date you respond to this question.

THESIS General Guidance document provides guidance to calculate the weighted average. See Background Information for access to this document.

The Incidence Rate Calculator and Comparison Tool is an online calculator that will compute your injury and illness rate. The OSHA Forms for Recording Work-Related Injuries and Illnesses provides forms and information for computing your facility injury and illness rate.

Certifications, Standards & Tools

Incidence Rate Calculator and Comparison Tool: This tool calculates the injury and illness incidence rate for employers.
https://data.bls.gov/iirc/

OSHA Forms for Recording Work-Related Injuries and Illnesses: This webpage contains information on how to record workplace injuries and illnesses and provides the worksheets needed to correctly do so.
https://www.osha.gov/recordkeeping/forms

Background Information

How to Compute a Firm's Incidence Rate for Safety Management: This website from the U.S. Bureau of Labor Statistics provides in-depth guidance on computing injury and illness numbers.
https://www.bls.gov/iif/osheval.htm

SA8000® Standard: Social Accountability International (SAI) is a global non-governmental organization that aims to advance human rights at work via the SA8000® Standard. SA 8000 measures social performance in eight areas that are relevant for workplaces in factories and organizations worldwide.
https://sa-intl.org/programs/sa8000/

TSC General Guidance for Key Performance Indicators: The General Guidance Document for Key Performance Indicators (KPI) provides essential guidance to complement the specific guidance provided for each KPI. TSC recommends reading this document before you begin your first questionnaire and revisiting it as often as necessary for clarification and additional information.
https://www.sustainabilityconsortium.org/tsc-downloads/general-guidance-document/

Definitions

Company-owned or contract manufacturing facilities: Facilities responsible for manufacturing and assembly of final products, whether these facilities are internal or external to the respondent's organization.

Worker exposure to harmful elements: Contact with potentially harmful chemical, physical, or biological elements that occurs as a result of one's job-related activities. Examples include chronic interaction with chemicals, dusts, radiation, environmental elements, allergens, noise, and vibrations.

Worker injury: Physical damage to an individual due to a single act that causes immediate damage or repetitive acts that cause damage over time. Examples of causes of injury include repetitive motions, non-ergonomic motions, damage from use of tools and machinery, falls, and burns.

Hotspots Addressed

9. *Worker sensitization and allergy - Enzymes in manufacturing*

6. CHEMICAL FOOTPRINT

Question	Response Options	Points	Rules
Does your organization measure its chemical footprint?	**A.** We do NOT measure our own chemical footprint and we are NOT engaged in a program to reduce the use of chemicals on the stewardship list.	0	OR B, C
	B. We measure our chemical footprint.	0.400	Multi
	C. We participate in the Chemical Footprint Project or another external program.	0.333	Multi
	D. We publicly disclose our chemical footprint.	0.267	IF B, C
	TOTAL POINTS AVAILABLE	**1**	

Guidance

Calculation & Scope

The stewardship list is comprised of the following lists which describe the conditions under which the identified chemicals can or cannot be used. If a chemical on a stewardship list is listed with a qualifying statement on production, exposure, or threshold, the statement should be considered for this KPI.

- CA EPA Prop 65 – Reproductive and Developmental Toxicants, Carcinogens
- EPA Toxics Release Inventory PBTs
- EU REACH – Annex XVII CMRs (Appendices 1 - 6)
- IARC – Groups 1, 2A, 2B

These published lists have been referenced in public retailer chemical policies.

Where a chemical is accompanied by a specific route of exposure on these published lists and the exposure route is relevant to the product during consumer use or foreseeable misuse, then the chemical is relevant to this KPI.

For B, the program may be internal to an organization but must measure the chemical footprint as defined by the Chemical Footprint Project (CFP).

For C, the external program must measure the chemical footprint of the organization and must be multi-stakeholder (include representatives from government and/or NGO as well as industry) with transparent methodology and include actors from across the supply chain (raw material suppliers, manufacturers, and retailers).

This KPI set was developed by The Sustainability Consortium to be aligned with the Beauty and Personal Care Product Sustainability Rating System. TSC is a multi-stakeholder organization comprised of leading brands, manufacturers, retailers, and non-profit organizations that represent broad perspectives on sustainability. To build a KPI set that can be deployed across the beauty and personal care industry, TSC acknowledges that members have diverse points of view. As such, the attributes, activities, KPIs, and scoring used in this KPI set represent a composite perspective of the current market and are not necessarily the views, policies, or program of any single member of TSC.

Background Information

Clean Production Action - Chemical Footprint Project: The Chemical Footprint Project (CFP), an initiative of Clean Production Action (CPA), has developed a tool to track and benchmark corporate activities to include safer chemicals in consumer products. The CFP survey also covers chemical selection at the manufacturing and supply chain phases and tracks progress according to four major elements: Management Strategy, Chemical Inventory, Footprint Measurement, and Public disclosure and Verification.
https://www.chemicalfootprint.org/

Definitions	**Chemical footprint:** Defined by the Chemical Footprint Project™ as the total mass of chemicals sold by a company, used in its manufacturing operations and by its suppliers, and contained in packaging that meet any of the following criteria: • Carcinogenic, mutagenic, or toxic to reproduction (CMR); • Persistent, bioaccumulative and toxic substance (PBT); • Any other chemical for which there is scientific evidence of probable serious effects to human health or the environment that give rise to an equivalent level of concern (for example, an endocrine disruptor or neurotoxicant); or • A chemical whose breakdown products result in a [chemical] that meets any of the above criteria. The Chemical Footprint Project™ provides other specific guidance that can be used to identify chemicals that meet these criteria. **Public disclosure - Home and Personal Care:** Voluntary corporate reporting, sustainability reporting programs, or reporting as part of regulatory compliance.
Hotspots Addressed	***10.*** *Adverse health effects - Product application, laundry detergent* ***13.*** *Wastewater generation - Product flush*

7. FORMULATION - CHEMICAL SELECTION

Question	Response Options	Points	Rules
Have you assessed your formulations for the presence of chemicals on the stewardship list?	**A.** We have NOT assessed our formulations for the presence of chemicals on the stewardship list.	0	OR B
	B. We have assessed our formulations for the presence of chemicals on the stewardship list.	0.2	OR A
	C._____% of our products in this category, by number, have intentionally added formulation ingredients that are on the stewardship list. *If a chemical is listed with a specific exposure, for the purpose of this response option, the chemical should be included even if the specified exposure is NOT relevant to the consumer during product use.*	0.4 × (1 - %)	IF B
	D._____% of our products in this category, by number, have intentionally added formulation ingredients that are on the stewardship list. *If a chemical is listed with a specific exposure that is NOT relevant to the consumer during product use, for the purpose of this response option, the chemical should NOT be included.*	0.4 × (1 - %)	IF B
	TOTAL POINTS AVAILABLE	**1**	

Guidance

Calculation & Scope

For this KPI, “category” is defined by the Performance Assessment name and description.

Intentionally added ingredients in final formulations are in scope for this KPI.

For this KPI, the threshold for intentionally added chemicals on the stewardship list is 100 ppm. Intentionally added chemicals on the stewardship list below this threshold are not to be considered.

For C, chemicals on the stewardship list are those chemicals on any of the four authoritative and scientific lists referenced below. Even when a list specifies a particular route of exposure, C measures the presence of chemicals on the stewardship list regardless of the route of exposure.

Calculate C as the number of products that you sell in this product category that contain any intentionally added formulation ingredients that are on the stewardship list, divided by the total number of products that your organization sells in this product category, then multiply by 100.

For D, chemicals on the stewardship list are those chemicals on any of the six authoritative and scientific lists referenced below. When a list specifies a particular route of exposure, D measures the presence of chemicals on the stewardship list when that route of route of exposure is relevant to consumers under conditions of instructed use or foreseeable misuse. Foreseeable misuse is limited to consumer misuse during a product’s intended application and does not include exposure from intentional misuse (e.g., ingestion of rinse-off skin products).

Calculate D as the number of products that you sell in this product category that contain any intentionally added formulation ingredients that are on the stewardship list where exposure is relevant, divided by the total number of products that your organization sells in this product category, then multiply by 100.

For D, examples of authoritative or scientific hazard classifications where a route of exposure has been specified include: 1. Ethyl alcohol in alcoholic beverages 2. Titanium dioxide (airborne, unbound particles of respirable size) 3. Silica, crystalline (airborne particles of respirable size) 4. Carbon black (airborne, unbound particles of respirable size)

Example-1: Titanium dioxide

For C, ALL products containing titanium dioxide are to be included in the numerator of the calculation.

For D, for products containing titanium dioxide (unbound particles of respirable size), ONLY those products that can become airborne during instructed consumer use or foreseeable misuse are to be included in the numerator of the calculation.

Example-2: Ethyl alcohol

For C, ALL products containing ethyl alcohol are to be included in the numerator of the calculation. For D, for products containing ethyl alcohol, ONLY those products that are ingested under conditions of instructed use or foreseeable misuse are to be included in the numerator of the calculation.

For product categories without intentionally added formulation ingredients that are on the stewardship list with or without a specified route of exposure, enter zero for C.

For product categories without intentionally added formulation ingredients that are on the stewardship list, enter zero for C and D.

The stewardship list is comprised of the following lists which describe the conditions under which the identified chemicals can or cannot be used. If a chemical on a stewardship list is listed with a qualifying statement on production, exposure, or threshold, the statement should be considered for this KPI.

- CA EPA Prop 65 – Reproductive and Developmental Toxicants, Carcinogens
- EPA Toxics Release Inventory PBTs
- EU REACH – Annex XVII CMRs (Appendices 1 - 6)
- IARC – Groups 1, 2A, 2B

These published lists have been referenced in public retailer chemical policies.

This KPI set was developed by The Sustainability Consortium to be aligned with the Beauty and Personal Care Product Sustainability Rating System. TSC is a multi-stakeholder organization comprised of leading brands, manufacturers, retailers, and non-profit organizations that represent broad perspectives on sustainability. To build a KPI set that can be deployed across the beauty and personal care industry, TSC acknowledges that members have diverse points of view. As such, the attributes, activities, KPIs, and scoring used in this KPI set represent a composite perspective of the current market and are not necessarily the views, policies, or program of any single member of TSC.

Certifications, Standards & Tools

EPA - Safer Choice: The EPA Safer Choice program (previously Design for the Environment) provides a voluntary standard for product designers who wish to choose ingredients based on established criteria. In this program, all ingredients are reviewed and must meet strict criteria for various impacts (e.g., human health and the environment, carcinogenicity, reproductive/developmental toxicity). Products meeting the standard are able to carry the Safer Choice label.
https://www.epa.gov/saferchoice

The Globally Harmonized System of Classification and Labelling of Chemicals (GHS): GHS provides specific human and environmental health criteria along with physical hazard criteria for chemicals in industry. These criteria are used for hazard communication and labeling of chemicals.
https://www.osha.gov/dsg/hazcom/global.html

Definitions

Contaminants: Naturally occurring impurities present in procured raw materials that are unintentionally incorporated into final formulations where they provide no function.

Incidental chemicals: Chemicals in raw materials present as a result of processing or for stabilization such as catalysts, solvents, residual monomers, reactive by-products, and raw material preservatives.

Intentionally added chemical: A chemical that provides a function to the final formulation during consumer use or is present as a result of formulating a product for safe use by consumers (e.g., pH balancing by acids or bases).

Unintentionally added ingredient: An ingredient that provides no function in a final formulation and is not present as a result of formulating a product for safe use by consumers (e.g., pH balancing by acids or bases).

Hotspots Addressed	***10.*** *Adverse health effects - Product application, laundry detergent*
	13. *Wastewater generation - Product flush*

8. INGREDIENT DISCLOSURE TO MANUFACTURERS

Question	Response Options	Points	Rules
What level of raw material disclosure does your organization require from suppliers?	**A.** We require that ONLY a safety data sheet accompany all purchased raw materials and ingredients.	0	OR B - E
	B. We require a list from our suppliers of all substances intentionally added to ingredients or raw materials.	0.133	Multi
	C. We ensure that our suppliers identify in the composition of all raw materials and ingredients any intentionally added chemicals on the stewardship list and incidental chemicals and known contaminants.	0.200	Multi
	D. We require from our suppliers that a list accompany all procured raw materials identifying all chemicals on the stewardship list that are reasonably expected to be present at 100 ppm, whether intentionally added or not, and we verify this information by internal testing methodologies or additional research.	0.333	OR E
	E. We require from our suppliers that a list accompany all procured raw materials identifying all chemicals on the stewardship list that are reasonably expected to be present at detectable levels, whether intentionally added or not, and we verify this information by internal testing methodologies or additional research.	0.667	OR D
	TOTAL POINTS AVAILABLE	**1**	

Guidance

Calculation & Scope

Both intentionally and unintentionally added ingredients in final formulations are in scope for this KPI.

For D and E, chemicals that are reasonably expected to be present include intentionally and unintentionally added ingredients present above trace quantities where the manufacturer knows or should reasonably know of such ingredients, impurities, or contaminants, unless they are withheld as confidential business information (adapted from the New York State Department of Environmental Conservation).

For D, the limit of detection is 100 ppm. Chemicals that are reasonably expected to be present at levels lower than 100 ppm are not included.

For E, chemicals that are reasonably expected to be present at detectable levels are included.

The stewardship list is comprised of the following lists which describe the conditions under which the identified chemicals can or cannot be used. If a chemical on a stewardship list is listed with a qualifying statement on production, exposure, or threshold, the statement should be considered for this KPI.

- CA EPA Prop 65 – Reproductive and Developmental Toxicants, Carcinogens
- EPA Toxics Release Inventory PBTs
- EU REACH – Annex XVII CMRs (Appendices 1 - 6)
- IARC – Groups 1, 2A, 2B

These published lists have been referenced in public retailer chemical policies.

Where a chemical is accompanied by a specific route of exposure on these published lists and the exposure route is relevant to the product during consumer use or foreseeable misuse, then the chemical is relevant to this KPI.

This KPI set was developed by The Sustainability Consortium to be aligned with the Beauty and Personal Care Product Sustainability Rating System. TSC is a multi-stakeholder organization comprised of leading brands, manufacturers, retailers, and non-profit organizations that represent broad perspectives on sustainability. To build a KPI set that can be deployed across the beauty and personal care industry, TSC acknowledges that members

	have diverse points of view. As such, the attributes, activities, KPIs, and scoring used in this KPI set represent a composite perspective of the current market and are not necessarily the views, policies, or program of any single member of TSC.
Certifications, Standards & Tools	**The Globally Harmonized System of Classification and Labelling of Chemicals (GHS):** GHS provides specific human and environmental health criteria along with physical hazard criteria for chemicals in industry. These criteria are used for hazard communication and labeling of chemicals. https://www.osha.gov/dsg/hazcom/global.html
Definitions	**Intentionally added ingredient:** A chemical that provides a function to the final formulation during consumer use or is present as a result of formulating a product for safe use by consumers (e.g., pH balancing by acids or bases). **Limit of detection:** Defined by the IUPAC Compendium of Chemical Terminology, 2nd ed. (the "Gold Book") as: "[the concentration, or the quantity, derived from the smallest measure that can be detected with reasonable certainty for a given analytical procedure.]" **Unintentionally added ingredient:** An ingredient that provides no function in a final formulation and is not present as a result of formulating a product for safe use by consumers (e.g., pH balancing by acids or bases). Unintentionally added ingredients include chemical contaminants (naturally occurring impurities present in procured raw materials that are unintentionally incorporated into final formulations where they provide no function) and incidental chemicals (chemicals in raw materials present as a result of processing or for stabilization such as catalysts, solvents, residual monomers, reactive by-products, and raw material preservatives).
Hotspots Addressed	***10.*** *Adverse health effects - Product application, laundry detergent* ***13.*** *Wastewater generation - Product flush*

9. RISK ASSESSMENT AND PRODUCT SAFETY

Question	Response Options	Points	Rules
How does your organization address the safety of your products using chemical risk assessment?	**A.** We do NOT address product safety beyond legal and regulatory compliance.	0	OR B - E
	B. We use best in class authoritative and science-based human health risk assessment methodologies to screen all of our laundry care ingredients and our final products, to ensure an acceptable margin of safety.	0.200	Multi
	C. We participate in on-going research to advance the science of product safety and risk assessment.	0.133	Multi
	D. We ensure adequate microbiological protection of our products.	0.200	Multi
	E. We have systems in place for postmarket safety surveillance.	0.200	Multi
	F. We disclose the following information on our website:		AND
	F1. Details of our risk assessment methodologies.	0.066	IF B
	F2. Full risk assessments of our ingredients and final products.	0.067	IF B
	F3. Details of our postmarket safety surveillance strategy.	0.067	IF E
	F4. Results of our postmarket safety surveillance.	0.067	IF E
		TOTAL POINTS AVAILABLE	**1**

Guidance

Calculation & Scope

Final formulations, not packaging materials, are in scope for this KPI.

For B, ingredient risk assessments must consider the aggregate exposure to individual ingredients from all products that are sold by a manufacturer and arrive at an acceptable margin of safety. These risk assessments should take into account exposure to vulnerable populations such as children under the age of three, the elderly, pregnant and breast-feeding women, and people with compromised immune systems (as described in the EU Cosmetic Products Regulation (EC) No 1223/2009).

Product level risk assessments must be performed for all products that are sold by a manufacturer and must account for interactions between individual ingredients in final formulations to justify safe use by consumers.

Resources for performing risk assessment, formulating products for adequate microbiological protection, and post market safety surveillance include, but are not limited to, those listed in the Background Information for this KPI.

Certifications, Standards & Tools

American Cleaning Institute Exposure and Risk Screening Methods: The American Cleaning Institute released their exposure and risk screening document as a guide for brand manufacturers selling cleaning products with relevant human and environmental exposures.
https://www.aciscience.org/docs/Consumer_Product_Ingredient_Safety_v2.0.pdf

Australian Industrial Chemicals Introduction Scheme (AICIS): The Australian Industrial Chemicals Introduction Scheme (AICIS)assesses the risks of importing or manufacturing industrial chemicals and promotes their safe use. Focus is on chemicals, polymers, and ingredients used in printing, plastics, mining, construction, paints, adhesives, consumer goods, cosmetics, and others.
https://www.industrialchemicals.gov.au/

European Chemicals Agency Guidance on Information Requirements and Chemical Safety Assessment (ECHA): This guidance document describes the information requirements under REACH with regard to substance properties, exposure, use and risk management measures, in the context of the chemical safety assessment.
https://echa.europa.eu/guidance-documents/guidance-on-information-requirements-and-chemical-safety-assessment

Human and Environmental Risk Assessment (HERA): A voluntary industry programme to carry out Human and Environmental Risk Assessments on ingredients of household cleaning products.
http://www.heraproject.com/RiskAssessment.cfm

International Programme on Chemical Safety (IPCS): The International Programme on Chemical Safety (IPCS) consolidates science-based peer-reviewed data on chemicals that are used globally into a single database. IPCS's goal is to aid in the proper and sound management of these chemicals.
http://www.inchem.org/

Background Information

Agency for Toxic Substances and Disease Registry (ATSDR): The Agency for Toxic Substances and Disease Registry (ATSDR) is part of the U.S. Department of Health and Human Services and is focused on protecting communities from human health impacts associated with exposure to both natural and man-made substances.
https://www.atsdr.cdc.gov/

Australian Industrial Chemicals Introduction Scheme (AICIS): The Australian Industrial Chemicals Introduction Scheme (AICIS)protects the Australian public by assessing chemical risks and sharing information for their safe industrial use.
https://www.industrialchemicals.gov.au/

National Toxicology Program (NTP): The National Toxicology Program (NTP) is an interagency program affiliated across the U.S. Department of Health and Human Services that works to enhance the science of toxicology, its testing methodology, and sharing of information across government entities and scientific communities. NTP also focuses on making this information publicly available.
https://ntp.niehs.nih.gov/index.cfm

USA-EPA Human Health Risk Assessment Program: The EPA Human Health Risk Assessment Program (HHRA) studies the human health effects of chemical exposure and their specific impact on biological and physical processes. Their health assessments describe the potential risk to the public. Resources to perform risk assessments are publicly available on their website.
https://www.epa.gov/risk/human-health-risk-assessment

Definitions

Post market surveillance: The practice of monitoring the safety of products after they have been released on the market.

Risk assessment - Home and Personal Care: A systematic process to evaluate the potential risks associated with consumer exposure to individual ingredient hazards or final formulations when used in products under conditions of instructed use or foreseeable misuse.

Hotspots Addressed

10. *Adverse health effects - Product application, laundry detergent*

13. *Wastewater generation - Product flush*

10. PACKAGING – RECYCLE LABELING

Question	Response Options	Points	Rules
What percentage of the sales packaging for your final product was labeled for recycling according to an established standard?	**A.** Not applicable. We do not use sales packaging for our product.	-	OR B, OR C
	B. We are unable to determine at this time.	0.000	OR A, OR C
	C. We are able to report the following for the sales packaging used for our final product:		AND C1 AND C2
	C1. _____% of our packaging, by units sold in the US and Canada, was labeled with How2Recycle.	0 × (%)	Multi
	C2. _____% of our packaging, by units sold in regions outside the US and Canada, was labeled with an established third-party recycling label.	0 × (%)	Multi
		TOTAL POINTS AVAILABLE	**0**

Guidance

Calculation & Scope

Calculate C1 as the number of units sold in the US and Canada that had sales packaging labeled with How2Recycle divided by the total number of units sold in the US and Canada that had sales packaging, then multiply by 100.

Calculate C2 as the number of units sold in regions outside the US and Canada that had sales packaging labeled according to an established third-party standard divided by the total number of units sold in regions outside the US and Canada that had sales packaging, then multiply by 100. Third party standards include those listed in the Certifications, Standards & Tools section of this KPI. Only include regions outside the US and Canada that are covered by the referenced third-party standards in your calculations.

Perform these calculations using data from a 12-month period that ended within 12 months of the date you respond to this question.

Certifications, Standards & Tools

Australasian Recycling Label (ARL): Used in Australia and New Zealand, the ARL details how best to label packaging for recycling to assist consumers in recycling correctly.
https://recyclingnearyou.com.au/arl/

Ecoembes Recycling Symbols: Used in Spain, the Ecoembes recycling symbols provide information to consumers for the recycling of packaging up to six different colors: blue for paper and cardboard, yellow for plastics and cans, green for glass, orange for organic materials, red for hazardous waste, and grey for everything else.
https://www.ecoembes.com/en/home

European Certification of Plastics Recycling (EUCertPlast): The EuCertPlast Certification is a European wide certification program for companies that recycle post-consumer plastic waste.
https://www.eucertplast.eu/

How2Recycle Certification: The How2Recycle Label provides guidance to consumers on how to recycle packaging for consumable goods. The label is intended to be used on all types of packaging and to provide instruction regarding how and where various raw materials can be recycled.
http://www.how2recycle.info/

Japanese Recycling Symbols: Used in Japan, Japanese recycling symbols tell in a glance to consumers what is recyclable and what is not recyclable, and assist consumers in recycling correctly.
https://www.jcpra.or.jp/Portals/0/resource/eng/JCPRAdocuments202012.pdf

Le Guide du TRI (Citeo Sorting Guide): sed in France, the Citeo Sorting Guide provides information to companies about which product components should be recycled and which should be disposed.
https://bo.citeo.com/sites/default/files/2019-07/20190617_Guide_Info-tri_Citeo_EN.pdf

On-Pack Recycling Label: Used in the UK, the On-Pack Recycling Label details how best to label packaging for recycling to assist consumers in recycling correctly.
http://www.oprl.org.uk/

The Association of Postconsumer Plastic Recyclers (APR): The APR is an international national trade association representing the plastics recycling industry.
https://plasticsrecycling.org/about

The Triman: Used in France, the Triman is a recycling symbol in e-commerce that sells and ships to France.
https://www.msl.io/uploads/downloads/Triman-Users-handbook-english-V21.pdf

Woolworths Recycling Labels: Used in South Africa, the Woolworths Recycling Labels detail how best to label packaging for recycling to assist consumers in recycling correctly.
https://www.woolworths.co.za/content/howto/good-business-journey/how-to-read-our-recycling-labels/_/A-cmp201960

Background Information

Circulytics – Measuring circularity: The Ellen Macarthur Foundation's Circulytics assesses a company's overall circularity. The tool is designed to support a company's evolution to a circular economy by informing strategy development and decision making, and identifying opportunities to align with circular economy principles including: designing out waste, keeping materials and products in use, and generating environmental benefits.
https://www.ellenmacarthurfoundation.org/resources/apply/circulytics-measuring-circularity

Global Protocol on Packaging Sustainability 2.0: The Global Protocol for Packaging Sustainability (GPPS 2.0) is a common set of indicators and metrics for business regarding sustainable packaging. The Consumer Goods Forum condensed the "Sustainable Packaging Indicators and Metrics Framework", developed by GreenBlue's Sustainable Packaging Coalition, into GPPS 2.0.
https://www.theconsumergoodsforum.com/wp-content/uploads/2017/11/CGF-Global-Protocol-on-Packaging.pdf

Recycle Now: Recycle Now is the national recycling effort in England. The website contains examples of recycling labels that may be used on packaging and how to interpret them.
http://www.recyclenow.com/recycle/packaging-symbols-explained

Walmart Sustainable Packaging Playbook: Walmart provides an overview of sustainable packaging best practices for suppliers interested in improving and innovating packaging.
https://www.walmartsustainabilityhub.com/climate/project-gigaton/packaging

Definitions

Sales packaging: "Packaging that leaves a store with the consumer". (Global Protocol on Packaging Sustainability 2.0:2011)

Third-party audit: An audit conducted by external, independent auditing organizations, such as those providing certification of conformity to a standard.

Hotspots Addressed

4. *Feedstock consumption - Chemical production*

11. PRODUCT CERTIFICATIONS

Question	Response Options	Points	Rules
What percentage of your product, by sales, has the following certifications?	**A.** We are unable to determine at this time	0.000	OR B
	B. The following percentage of our product, by sales, was certified:	-	OR A
	B1. _____% of our product is Cradle to Cradle Certified™.	0 × (%)	Multi
	B2. _____% of our product is EPA Safer Choice Certified.	0 × (%)	Multi
	B3. _____% of our product is EWG VERIFIED™.	0 × (%)	Multi
	TOTAL POINTS AVAILABLE	**0**	

Guidance

Calculation & Scope

Calculate B1-B3 as the sales of your product that underwent the specified certification, divided by the total sales of the product, them multiply by 100. The sum of B1-B3 may exceed 100% if product has more than one certification.

Certifications, Standards & Tools

Cradle to Cradle Product Certification™: Cradle to Cradle Product Certification™ provides a standard of performance for manufacturers regarding product sustainability and material safety. Individual product assessments are performed by independent and trained third parties and certifications are made by the Cradle to Cradle Products Innovation Institute.
http://www.c2ccertified.org/product_certification

Environmental Working Group EWG VERIFIED™ Standard: The Environmental Working Group (EWG) is a non-profit, non-partisan organization dedicated to protecting human health and the environment. EWG produces research and educational guides on health hazards in food and personal care products. Companies work with EWG by disclosing ingredients not listed on labels and manufacturing processes that is then compared to EWG's strict criteria standards and if they meet the criteria they receive the EWG verified mark.
http://www.ewg.org/ewgverified/

EPA Safer Choice Program: EPA developed the Safer Choice Program in which companies can voluntarily participate by researching and reformulating their product to meet Safer Choice Standards in order to earn the Safer Choice Label on their products. Safer Choice reviews the formulation of ingredients in terms of environmental and human health risk, and characteristics of concern within a functional class against the Master and Functional-Class Criteria documents.
https://www.epa.gov/saferchoice

Hotspots Addressed

***6.** Fossil fuel combustion - Chemical plant operation*

***10.** Adverse health effects - Product application, laundry detergent*

12. INGREDIENT DISCLOSURE - BUSINESS TO CONSUMER

Question	Response Options	Points	Rules
For what percentage of your products, by units sold, does your organization disclose ingredient information to consumers?	**A.** We are unable to determine at this time.	0	OR
	B. We publicly disclose ingredient information for the following percentages of our products:		
	B1._____% have ingredient identity disclosed online or via telephone.	0.333 × (%)	Multi
	B2._____% have ingredient identity disclosed on-label.	0.333 × (%)	Multi
	B3._____% have ingredient functionality disclosed.	0.334 × (%)	Multi
	TOTAL POINTS AVAILABLE	**1**	

Guidance

Calculation & Scope

The scope of this question includes intentionally added ingredients.

Calculate B1 as the number of units sold for which you disclose ingredient identity online or via telephone, divided by the total number of units sold, then multiply by 100.

Calculate B2 as the number of units sold for which you disclose ingredient identity on-label divided by the total number of units sold, then multiply by 100.

Calculate B3 as the number of units sold for which you have disclosed information (online, via telephone, or on-label) about the functionality of the ingredients, divided by the total number of units sold, then multiply by 100.

For B1 - B3, when products have been bundled for sale under one SKU number or UPC code, the numerator should reflect the total number of product units sold, however bundled.

For B1 Online disclosure includes disclosure via websites, SmartLabel(TM), QR code at shelf, mobile apps, or similar measures. Telephone disclosure must be provided by a toll-free phone number on a product label for consumers to call to obtain ingredient information. Ingredients must be listed using a specific naming convention (e.g., CAS, IUPAC, HCPA Ingredient Dictionary, or common chemical name).

Where needed to ensure the protection of confidential business information, chemical function or chemical class labels may be used. Fragrances can reference a list or subset list of the ingredients authored by the International Fragrance Association (IFRA) or a "palette list" that represents the fragrance materials used in the product.

Ingredient functionality disclosure includes a statement of the function, or purpose, of the ingredient used in your product. The function is to be determined by the manufacturer and can be disclosed either online, via telephone, or on-label.

Perform these calculations using data from a 12-month period that ended within 12 months of the date you respond to this question.

Certifications, Standards & Tools	**American Cleaning Institute (ACI) Ingredient Central:** In collaboration with the Household & Commercial Products Association (HCPA) and the Canadian Consumer Specialty Products Association (CCSPA), the American Cleaning Institute (ACI) has developed an ingredient communication initiative that provides consumers with ingredient information for four main product categories: air care, automotive care, cleaning, and polishes and floor maintenance products. https://www.cleaninginstitute.org/industry-priorities/policy/ingredient-communication **EPA Safer Choice Program:** EPA developed the Safer Choice program in which companies can voluntarily participate by researching and reformulating their product to meet Safer Choice standards in order to earn the Safer Choice Label on their products. Safer Choice reviews the formulation of ingredients in terms of environmental and human health risk, and characteristics of concern within a functional class against the Master and Functional-Class Criteria documents. https://www.epa.gov/saferchoice **Household & Commercial Products Association Ingredient Communication Initiative:** The HCPA has developed a voluntary ingredient communication initiative for air care, automotive care, cleaning, and polishes and floor maintenance products. This program defines specific criteria for ingredient disclosure such as nomenclature, media, and order of ingredient listing. https://www.thehcpa.org/advocacy/issues/ingredient-communication/ **The Household & Commercial Products Association (HCPA) Dictionary:** The Household & Commercial Products Association (HCPA) Dictionary is the only source for definitions of the chemicals used specifically in household and automotive care consumer products. Companies engaged in ingredient communication can use the HCPA Dictionary to assure maximum transparency for consumers who want to know what ingredients are in the products they buy and use. Consumers can access information on product ingredients through the free HCPA Consumer Product Ingredients Dictionary Guides, which cross-reference HCPA Names with trade names, CAS numbers, and other technical names. Through referencing these Guides, consumers can better understand the ingredients lists on company web sites. https://www.thehcpa.org/resources/ingredient-dictionary/
Hotspots Addressed	***10.*** *Adverse health effects - Product application, laundry detergent* ***12.*** *Wastewater generation - Product flush*

13. PRODUCT FORMULATION - COLD WASH CYCLE

Question	Response Options	Points	Rules
What percentage of your laundry detergents, by revenue, is specifically formulated for use with the cold wash setting of washing machines, or ambient water temperatures, and includes instructions for cold wash cycle use, in regions where relevant?	**A.** Not applicable. We do not manufacture laundry detergents.	-	OR
	B. We are unable to determine at this time.	0	OR
	C. The following percentage of our laundry detergents, by revenue, was specifically formulated for use with the cold wash setting of washing machines, or ambient water temperatures, and includes instructions for cold wash cycle use, in regions where relevant: **C1.**_____%.	1 × (%)	OR

TOTAL POINTS AVAILABLE **1**

Guidance

Calculation & Scope

Calculate C1 as the revenue generated from your laundry detergents that were specifically formulated for use with the cold wash setting of washing machines, or ambient water temperatures, and includes instructions for cold wash cycle use, in regions where relevant, divided by the total revenue from all of your laundry detergents, then multiply by 100.

Examples of use instructions include on-pack labeling, pictograms, and icons or reference to a website on label that provides proper cold wash cycle use information.

Perform this calculation using data from a 12-month period that ended within 12 months of the date you respond to this question.

Relevant regions include those where ambient water temperatures do not provide optimal performance for conventional detergent formulations.

Examples of cold wash formulations include, but are not limited to, those that meet the wash temperature requirement defined by the AISE Advanced Sustainability Profiles for laundry detergents as well as those that have been optimized using a verifiable process for the cold or ambient temperature wash cycle for washing machines in the regions in which they are sold.

Certifications, Standards & Tools

Advanced Sustainability Profiles for Household Liquid Laundry Detergents (AISE): This standard sets the Advanced Sustainability Profiles requirements for liquid laundry detergents in the context of the A.I.S.E. Charter for Sustainable Cleaning 2020.
https://www.sustainable-cleaning2020.com/company-area/charter-2020-documentation

Advanced Sustainability Profiles for Household Solid Laundry Detergents (AISE): This standard sets out the Advanced Sustainability Profiles requirements for household solid laundry detergents in the context of the A.I.S.E. Charter for Sustainable Cleaning 2020.
https://www.sustainable-cleaning2020.com/company-area/charter-2020-documentation

Background Information

AISE Low Temperature Washing Initiative: The “I Prefer 30 Degrees C” low temperature washing campaign is an initiative headed by AISE which focuses on sustainable laundry detergent usage by communicating the environmental benefits of low washing temperatures to consumers in Europe.
https://iprefer30.eu/

Hotspots Addressed

11. *Water heating and use - Product application*

14. USE PHASE – MESSAGING AND DESIGN

Question	Response Options	Points	Rules
How does your organization engage consumers regarding energy reduction, water consumption, or product waste?	**A.** For products in this category, we have NOT conducted an on-pack, web-based, or media educational campaign in the last twelve months to inform consumers regarding the reduction of energy, water consumption, or product waste.	0	OR B - D
	B. For products in this category, we have conducted an on-pack, web-based, or media educational campaign in the last twelve months to inform consumers regarding the reduction of energy, water consumption, or product waste.	0.3	OR A
	C. For products in this category, we measure and track the reach of our communications through consumer surveys or other market research.	0.3	IF B
	D. For products in this category, we develop and market products that are designed to reduce energy, water consumption, or product waste during consumer use phase.	0.4	OR A
	TOTAL POINTS AVAILABLE	**1**	

Guidance

Calculation & Scope

For this KPI, “category” is defined by the Performance Assessment name and description.

For D, an example of a product that qualifies for this response option is one that is designed to replace a product that requires more water or energy to use while providing the same functionality to the consumer.

Definitions

Consumer use phase: The life cycle stage of a product during which it is being used by a consumer.

Public disclosure - Home and Personal Care: The act of making information available and readily accessible to consumers.

Hotspots Addressed

11. *Water heating and use - Product application*

Category Sustainability Profile

Hotspots

Hotspots are activities in a product's life cycle that have a documented environmental or social impact. TSC evaluates the quality and quantity of the scientific sources of evidence for each hotspot according to a defined decision tree before they are included in the CSP. Items marked with an asterisk (*) are *additional issues* that have not achieved the same level of evidence as a hotspot. For more information on the methodology TSC uses to identify hotspots visit: http://www.sustainabilityconsortium.org/toolkit-methodology

RAW MATERIAL PROCESSING

1. Chemical use - Chemical plant operation* Exposure to chemical ingredients, such as enzymes, that are used in the production of laundry detergent formulations can lead to respiratory difficulties and skin irritation in workers. **Related Improvement Opportunities** ***5.*** *Health and Safety Performance Benchmarking* ***6.*** *Health and safety performance - Worker enzyme exposure* **KPIs** ***4.*** *Worker health and safety - Supply chain*	**References** ▪ Schweigert et al., 2000 ▪ Vanhanen, Tuomi, Tiikkainen, Tupasela, & Voutilainen, 2000
2. Chemical ingredients production - Supply chain impacts Fossil feedstock depletion along with hydrocarbon emissions, including carbon monoxide, related to the use of embedded energy during the chemical production process can contribute to climate change and impact human health. **Related Improvement Opportunities** ***1.*** *Energy efficient processes* ***2.*** *Track greenhouse gas emissions* **KPIs**	**References** ▪ European Union, 2015 ▪ Henkel, 2009 ▪ Dewaele et al., 2006 ▪ Koehler and Wildbolz, 2009 ▪ Koerner, M. ,2010 ▪ TSC, 2011a1 ▪ Van Hoof, Schowanek & Feijtel, 2003
3. Water use - Chemical plant operation* Water-intensive processes in the chemical industry lead to fresh water depletion and wastewater generation. **Related Improvement Opportunities** ***15.*** *Water tracking - Risk management* **KPIs** ***3.*** *Water use – Formulation raw material suppliers*	**References** ▪ European Union, 2015 ▪ Environment Canada., 2004 ▪ Milmo, S., 2008 ▪ Pellerin, T., 2005
4. Feedstock consumption - Chemical production* Feedstock and fuel materials are extracted from non-renewable sources. Greenhouse gas emissions also result from the extraction process. **Related Improvement Opportunities** ***1.*** *Energy efficient processes* ***3.*** *Raw materials and feedstocks - Renewable resources* **KPIs** ***2.*** *Greenhouse gas – Supply chain* ***10.*** *Packaging – Recycle Labeling*	**References** ▪ Gerngross, 1999 ▪ Hellweg, Wernet, Mutel, & Hungerbuhler, 2010 ▪ ICCA, 2009

5. Electricity consumption - Organic chemical manufacturing* Electricity consumption for ingredient manufacturing in the chemical industries leads to greenhouse gas emissions. **Related Improvement Opportunities** ***1.*** *Energy efficient processes* ***18.*** *Measure and report energy use and greenhouse gas emissions* **KPIs** ***2.*** *Greenhouse gas – Supply chain*	**References** ▪ OECD, 2001 ▪ U.S. Department of Energy., 2004
6. Fossil fuel combustion - Chemical plant operation Fossil fuel combustion (natural gas and coal) for the operation of organic chemical plants leads to non-renewable resource depletion and greenhouse gas emissions. **Related Improvement Opportunities** ***1.*** *Energy efficient processes* **KPIs** ***2.*** *Greenhouse gas – Supply chain* ***11.*** *Product Certifications*	**References** ▪ Hellweg, Wernet, Mutel, & Hungerbuhler, 2010 ▪ ICCA, 2009 ▪ OECD, 2001 ▪ Overcash, M., and Kim, S., 2003 ▪ U.S. Department of Energy., 2004 ▪ Wernet, Mutel, Hellweg, & Hungerbühler, 2011

AGRICULTURE AND LIVESTOCK

7. Palm oil production - Environmental impacts Palm oil cultivation requires fossil fuel consumption, chemical fertilizer and pesticide application, local and long-distance transportation, along with land transformation which releases wastewater. These activities contribute to climate change, biodiversity loss, ecotoxicity, and decreased soil fertility. **Related Improvement Opportunities** ***4.*** *Palm oil - Sourcing sustainable product* ***17.*** *Palm oil - Sustainable supplier selection* **KPIs** ***1.*** *Palm Oil, Palm Kernel Oil, and Derivative Ingredient Sourcing*	**References** ▪ Boucher et al., 2011 ▪ Brown and Jacobson, 2005 ▪ Brühl & Eltz, 2010 ▪ Fitzherbert et al., 2008 ▪ Hansen, 2005 ▪ Hatti-Kaul, Tornvall, Gustafsson, & Borjesson, 2006 ▪ Koh, 2008 ▪ Laurance et al., 2010 ▪ Nellemann et al., 2007 ▪ Tan, Lee, Mohamed, & Bhatia, 2009 ▪ Teoh, 2011 ▪ Wakker, 2005
8. Palm oil production - Social impacts Palm oil cultivation may contribute to health and safety risks to workers and communities, unfair labor conditions regarding gender equality and compensation, inconsistent recognition of the customary land rights of native populations, and displacement of primates by removal of natural habitats. **Related Improvement Opportunities** ***4.*** *Palm oil - Sourcing sustainable product* ***17.*** *Palm oil - Sustainable supplier selection* **KPIs** ***1.*** *Palm Oil, Palm Kernel Oil, and Derivative Ingredient Sourcing*	**References** ▪ Brown and Jacobson, 2005 ▪ Nellemann et al., 2007 ▪ Nordic Ecolabelling, 2012 ▪ Tan, Lee, Mohamed, & Bhatia, 2009 ▪ Teoh, 2011 ▪ Wakker, 2005

MANUFACTURING AND ASSEMBLY

9. Worker sensitization and allergy - Enzymes in manufacturing

Occupational exposure of enzymes due to mishandling, insufficient handling protocols, and lack of monitoring can lead to workers developing occupational illnesses including but not limited to sensitization and respiratory allergies.

Related Improvement Opportunities

6. *Health and safety performance - Worker enzyme exposure*
16. *Implement a program to monitor and control worker health and safety*

KPIs

5. *Worker Health and Safety - Manufacturing*

References

- Brant et al ., 2004
- Rooy, Van, Houba, Palmen, Zengeni, Sander, Spithoven, Heederik, 2009
- Sarlo & Kirchner, 2002
- Vanhanen, Tuomi, Tiikkainen, Tupasela, & Voutilainen, 2000

USE

10. Adverse health effects - Product application, laundry detergent

Use of some home and personal care products may cause adverse health effects, such as acute irritation or sensitization, when used as directed or under foreseeable conditions of misuse.

Related Improvement Opportunities

7. *Priority chemical disclosure, risk assessment, and management*
9. *Follow International Fragrance Association (IFRA) standards*
10. *Ingredient disclosure (manufacturer to consumer)*

KPIs

6. *Chemical footprint*
7. *Formulation - Chemical selection*
8. *Ingredient disclosure to manufacturers*
9. *Risk assessment and product safety*
11. *Product Certifications*
12. *Ingredient disclosure - Business to consumer*

References

- Bello, Quinn, Perry, & Milton, 2009
- Center for Disease Control and Prevention, 2012
- De Groot et al., 2006
- Good Guide, 2012
- GreenerDesign Staff, 2010
- Habib, El-Masri & Heath, 2006
- Johansen, 2003
- Nazaroff & Weschler, 2004
- Rastogi, Heydorn, Johansen & Basketter, 2001
- SCCNFP, 1999
- Schneir, Rentmeester, Clark & Cantrell, 2013
- Skin Deep, 2012
- Steinemann, 2004
- The Ashkin Group, LLC, 2011
- White, De Groot, 2006

11. Water heating and use - Product application

Water is used directly for laundry detergent application and water heating requires using energy from electricity, oil, or natural gas resulting in greenhouse gas emissions.

Related Improvement Opportunities

8. *Proper use instructions - Energy and Water*
11. *Cold water formulations*
12. *High efficiency formulations*

KPIs

13. *Product formulation - Cold wash cycle*
14. *Use phase – Messaging and design*

References

- European Union, 2015
- Henkel, 2009
- Dewaele et al., 2006
- Koehler and Wildbolz, 2009
- Koerner, M. ,2010
- TSC, 2011a1
- Van Hoof, Schowanek & Feijtel, 2003

END-OF-LIFE AND DISPOSAL

12. Wastewater generation - Product flush

Some detergent ingredients have the potential to not fully biodegrade after being flushed into the wastewater stream and may result in bioaccumulation and aquatic toxicity.

Related Improvement Opportunities

13. *Phosphate in detergent*
14. *Ingredient biodegradability*

KPIs

12. *Ingredient disclosure - Business to consumer*

References

- European Union, 2015
- Ankley & Burkhard, 2009
- Baghel et al., 2008
- Dewaele et al., 2006
- Madsen et al., 2001
- Tisler T, Zagorc-Končan J., 2003
- Van Hoof, Schowanek & Feijtel, 2003

13. Wastewater generation - Product flush

Some product formulations may contain ingredients that do not biodegrade at conventional wastewater treatment plants, leading to accumulation in the environment and potential ecotoxicity.

Related Improvement Opportunities

7. *Priority chemical disclosure, risk assessment, and management*
14. *Ingredient biodegradability*

KPIs

6. *Chemical footprint*
7. *Formulation - Chemical selection*
8. *Ingredient disclosure to manufacturers*
9. *Risk assessment and product safety*

References

- Brillas, E., & Martinez-Huitle, C. A. , 2009
- Mitch, Kemper, & Walse, 2010
- Skin Deep, 2012
- Ternes et al., 2004
- Tsai & Ding, 2004
- Yi, J. Z., & Zhang, L., 2008

Improvement Opportunities

Improvement opportunities are practices that address one or more environmental or social hotspots and are actionable by brand manufacturers or their suppliers. TSC evaluates the quality of the evidence supporting each improvement opportunity according to a defined decision tree before including it in the CSP. For more information on the methodology TSC uses to identify hotspots visit: http://www.sustainabilityconsortium.org/toolkit-methodology

RAW MATERIAL PROCESSING

1.	**Energy efficient processes** Reduce energy consumption by optimizing reactions and processes to ambient conditions that do not require external heating or cooling. **Related Hotspots** ***2.*** *Chemical ingredients production - Supply chain impacts* ***4.*** *Feedstock consumption - Chemical production* ***5.*** *Electricity consumption - Organic chemical manufacturing* ***6.*** *Fossil fuel combustion - Chemical plant operation*	**References** ▪ Anastas & Warner, 1998 ▪ ICCA, 2009
2.	**Track greenhouse gas emissions** Track and report greenhouse gas and other production emissions during raw material processing. **Related Hotspots** ***2.*** *Chemical ingredients production - Supply chain impacts*	**References** ▪ Gobal Reporting Initiative, 2006
3.	**Raw materials and feedstocks - Renewable resources** Implement the use of renewable sources of raw materials or feedstocks in order to mitigate the impacts associated with depleting fossil feedstocks during the production of ingredients used in consumer products. **Related Hotspots** ***4.*** *Feedstock consumption - Chemical production*	**References** ▪ Anastas & Warner, 1998

AGRICULTURE AND LIVESTOCK

4.	**Palm oil - Sourcing sustainable product** Purchase palm oil and palm kernel oil certified as sustainable by an independent, international, transparent, multi-stakeholder organization such as the Roundtable of Sustainable Palm Oil (RSPO), either directly or through purchase of certificates through organizations such as Green Palm. **Related Hotspots** ***7.*** *Palm oil production - Environmental impacts* ***8.*** *Palm oil production - Social impacts*	**References** ▪ RSPO, 2007 ▪ Wakker, 2005

MANUFACTURING AND ASSEMBLY

5.	**Health and Safety Performance Benchmarking** Establish, document, and maintain an occupational health and safety management system (OHSMS) **Related Hotspots** ***1.*** *Chemical use - Chemical plant operation*	**References** ▪ AISE, 2010

6. Health and safety performance - Worker enzyme exposure Adopt enzyme safe management standards or tools to monitor worker exposure to detergent enzymes during the manufacturing process. **Related Hotspots** ***1.*** *Chemical use - Chemical plant operation* ***9.*** *Worker sensitization and allergy - Enzymes in manufacturing*	**References** ▪ AISE, 2010 ▪ Rooy, Van, Houba, Palmen, Zengeni, Sander, Spithoven, Heederik, 2009 ▪ The Soap and Detergent Association, 2005
7. Priority chemical disclosure, risk assessment, and management Justify formulation safety by obtaining complete chemical disclosure of raw materials, performing ingredient risk assessments that include aggregate exposures to vulnerable populations, and utilizing informed substitution using alternative screening tools and protocols. **Related Hotspots** ***10.*** *Adverse health effects - Product application, laundry detergent* ***13.*** *Wastewater generation - Product flush*	**References** ▪ Anastas & Warner, 1998 ▪ BizNGO, 2011 ▪ European Chemicals Agency, 2012 ▪ Lavoie et al., 2011 ▪ National Research Council (U.S.), 2009 ▪ Scientific Committee on Consumer Safety, 2012

USE

8. Proper use instructions - Energy and Water Educate consumers regarding proper product use related to wash temperature, dosage, and waste disposal. Include this information on product labels. **Related Hotspots** ***11.*** *Water heating and use - Product application*	**References** ▪ Davies, Haines, Norris, & Wilson, 1998 ▪ Koerner, M. ,2010
9. Follow International Fragrance Association (IFRA) standards Manufacture fragrances in accordance with the standards of the International Fragrance Association (IFRA). **Related Hotspots** ***10.*** *Adverse health effects - Product application, laundry detergent*	**References** ▪ European Commission, 2007c ▪ Good Environmental Choice, 2007 ▪ Green Seal, 2011 ▪ Nordic Ecolabelling, 2012 ▪ United States Environmental Protection Agency, 2010a
10. Ingredient disclosure (manufacturer to consumer) Communicate ingredients that are in home and personal care products in an easily accessible way to provide valuable information to consumers. **Related Hotspots** ***10.*** *Adverse health effects - Product application, laundry detergent*	**References** ▪ American Cleaning Institute, 2011 ▪ US EPA, 2011b
11. Cold water formulations Formulate detergent for use in cold water and add labeling to products that recommends use in cold water for products that do not require hot water. **Related Hotspots** ***11.*** *Water heating and use - Product application*	**References** ▪ Dewaele et al., 2006 ▪ Golden et al., 2010 ▪ Sabaliunas et al., 2005
12. High efficiency formulations Formulate detergents for use in high efficiency washers, and add labeling to compatible products that recommends use in high efficiency machines. **Related Hotspots** ***11.*** *Water heating and use - Product application*	**References** ▪ Energy Star, 2011 ▪ Golden et al., 2010

END-OF-LIFE AND DISPOSAL

13. Phosphate in detergent
Utilize concentrated low phosphate washing detergents.

Related Hotspots
12. *Wastewater generation - Product flush*

References
- Koerner, M. ,2010

14. Ingredient biodegradability
Use ingredients that are biodegradable under aerobic and anaerobic conditions.

Related Hotspots
12. *Wastewater generation - Product flush*
13. *Wastewater generation - Product flush*

References
- European Ecolabel, 2010
- Nordic Ecolabelling, 2012

IMPROVEMENT OPPORTUNITIES FOR MULTIPLE LIFE CYCLE STAGES

15. Water tracking - Risk management
Identify integrated and cumulative threats to inform effective water resource planning and management. Implement water efficiency measures, such as recycling and reuse.

Related Hotspots
3. *Water use - Chemical plant operation*

References
- Environment Canada., 2004
- Milmo, S., 2008

16. Implement a program to monitor and control worker health and safety
Implement occupational health and safety surveillance programs to insure that adequate measures are taken to limit worker exposure to cleaning enzymes.

Related Hotspots
9. *Worker sensitization and allergy - Enzymes in manufacturing*

References
- Brant et al ., 2004
- Sarlo & Kirchner, 2002

17. Palm oil - Sustainable supplier selection
Select suppliers that work to improve the sustainability of their own operations and adopt the guidelines set by the Roundtable of Sustainable Palm Oil (RSPO).

Related Hotspots
7. *Palm oil production - Environmental impacts*
8. *Palm oil production - Social impacts*

References
- Green Palm, 2010
- RSPO, 2007

18. Measure and report energy use and greenhouse gas emissions
Measure, report, and be accountable for organizational performance towards the goal of sustainable development using the Global Reporting Initiative (GRI) framework.

Related Hotspots
5. *Electricity consumption - Organic chemical manufacturing*

References
- Lopes, Dias, Arroja, Capela, & Pereira, 2003
- Miller, Justiniano, & McQueen, 2005
- PE International, 2009

References

A A.I.S.E. (2015). PEF screening report in the context of the EU Product Environmental Footprint Category Rules (PEFCR) Pilots: Household Heavy Duty Liquid Laundry Detergents (HDLLD) for machine wash.

American Cleaning Institute. (2011). Consumer product ingredient initiative. Retrieved from http://www.cleaninginstitute.org/assets/1/Page/Ingredient%20Communication%20Model%20fnl%20rev%200311.pdf

Anastas, P. T., & Warner. (1998). Green chemistry: Theory and practice. Oxford [England]; New York: Oxford University Press.

Ankley, G.T., & Burkhard, L.P. (1992). Identification of surfactants as toxicants in a primary effluent. Environmental Toxicology and Chemistry, 11(9), 1235-1248.

B Baghel, R. S., Singh, D., Yadav, K. K., & Triveid, S. P. (2008). Determination of detergent toxicity in haematological profile of fish. Research in Environmental and Life Sciences, 1(2), 45-48.

Bello, A., Quinn, M. M., Perry, M. J., & Milton, D. K. (2009). Characterization of occupational exposures to cleaning products used for common cleaning tasks-a pilot study of hospital cleaners. Environmental Health, 8(1), 11. doi:10.1186/1476-069X-8-11

BizNGO. (2011). The need for chemical ingredient disclosure across the supply chain. Retrieved from http://www.bizngo.org/static/ee_images/uploads/resources/BizNGO_chem_ingredient_disclosure_factsheet.pdf

Boucher, D., Elias, P., Lininger, K., May-Tobin, C., Roquemore, S., & Saxon, E. (2011). The root of the problem, What is driving tropical deforestation today? Union of Concerned Scientists. Tropical Forest and Climate Initiative.

Brant, A., Hole, A., Cannon, J., Helm, J., Swales, C., Welch, J., & Cullinan, P. (2004). Occupational asthma caused by cellulase and lipase in the detergent industry. Occupational and Environmental Medicine, 61(9), 793 - 795. doi:10.1136/oem.2003.011288

Brillas, E., & Martinez-Huitle, C. A. (2009). Decontamination of wastewaters containing synthetic organic dyes by electrochemical methods: A general review. Applied Catalysis B: Environmental, 87, 105–145. Retrieved from http://www.sciencedirect.com/science/article/pii/S0926337308003718

Brown, E., & Jacobson, M. (2005) Cruel oil: How palm oil harms health, rainforest & wildlife. Center for Science in the Public Interest.

Brühl, C. A., & Eltz, T. (2010). Fuelling the biodiversity crisis: Species loss of ground-dwelling forest ants in oil palm plantations in Sabah, Malaysia (Borneo). Biodiversity and Conservation, 19(2), 519-529. doi:10.1007/s10531-009-9596-4

C Case Study Persil Megaperls by Henkel AG CO. Kgaa. (2009).

Center for Disease Control and Prevention. (2012, October 19). Health hazards associated with laundry detergent pods - United States, May, June 2012. Morbidity and Mortality Weekly Report, 61, 41. Retrieved from http://www.cdc.gov/mmwr/pdf/wk/mm6141.pdf

D Davies, S., Haines, H., Norris, B., & Wilson, J. R. (1998). Safety pictograms: are they getting the message across?. Applied ergonomics, 29(1), 15-23.

De Groot, A. C., Flyvholm, M. A., Lensen, G., Menne, T., & Coenraads, P.- J. (2009). Formaldehyde releasers: Relationship to formaldehyde contact allergy: Contact allergy to formaldehyde and Inventory of Formaldehyde Releasers. Contact Dermatitis, 61 (63-85). Department of Dermatology, University Medical Center Groningen, University of Groningen. Retrieved from http://share.eldoc.ub.rug.nl/FILES/root2/2009/Formretof/de_Groot_2009_Contact_Dermatit.pdf

Dewaele, J., Pant, R., & Schowanek, D. (2006). Comparative life cycle assessment (LCA) of Ariel Actif à froid (2006), a laundry detergent that allows to wash at colder wash temperatures, with previous Ariel laundry detergents (1998, 2001). (p. 57). Procter Gamble.

E Energy Star. (2011). Clothes washers for consumers. Retrieved from http://www.energystar.gov

Environment Canada. (2004). Threats to water availability in Canada (Government) (p. 128). Ontario: National Water Research Institute. Retrieved from http://www.ec.gc.ca/inre-nwri/default.asp?lang=En&n=0CD66675-

European Chemicals Agency. (2012, October 9). Registration, evaluation, authorisation and restriction of chemicals-REACH (2006), Consolidated version. Retrieved from http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2006R1907:20121009:EN:PDF

European Commission. (2007c). Reference document on best available techniques in the production of polymers. Retrieved from http://eippcb.jrc.ec.europa.eu/reference/BREF/pol_bref_0807.pdf.

European Ecolabel (2011). Revision of Ecolabel Criteria for Laundry Detergents 2008-2010, Background report. ENV.G.2/SER2007/0073rl, Commission Decision of 28 April 2011. Retrieved 01.08.2011, from http://ec.europa.eu/environment/ecolabel/ecolabelled_products/categories/laundry_detergents_en.htm.

F Fitzherbert, E. B., Struebig, M. J., Morel, A., Danielsen, F., Brühl, C. A., Donald, P. F., & Phalan, B. (2008). How will oil palm expansion affect biodiversity? Trends in Ecology & Evolution, 23(10), 538 - 545. doi:10.1016/j.tree.2008.06.012

G Gerngross, T. (1999). Can biotechnology move us toward a sustainable society? Nature Biotechnology, 17, 541-544.

Global Reporting Initiative. (2006). G3 guidelines. Retrieved from https://www.globalreporting.org/reporting/latest-guidelines/g3-guidelines/Pages/default.aspx

Golden, J., Vairavan, S., Ugarte, G.M., White, P., & Meier, K. (2010). Energy and carbon impact from residential laundry in the United States. Journal of Integrative Environmental Sciences, 7(1), 53-73.

Good Environmental Choice Australia Ltd. (2007). The Australian ecolabel program, Australian voluntary environmental labeling standard, No: GECA 17-2007. Cleaning Products. Retrieved from http://www.geca.org.au/list-of-geca-standards.html.

GoodGuide. (2012). http://www.goodguide.com/

Green Seal. (2011). Green seal certification checklist, personal care and cosmetic products. Retrieved from http://www.greenseal.org/GreenBusiness/Standards.aspx?vid=ViewStandardDetail&cid=12&sid=37

GreenerDesign Staff. (2010). Cosmetics bill seeks full ingredient disclosure, FDA Oversight. Retrieved from http://www.greenbiz.com/news/2010/07/22/cosmetics-bill-seeks-full-ingredient-disclosure-fda-oversight

GreenPalm Sustainability. A Fresh Approach to Delivering Sustainability. (2009). Book & Claim Ltd. http://www.greenpalm.org/upload/files/6/GreenPalm-Overview-2009.pdf

H Habib, R. R., El-Masri, A., & Heath, R. L. (2006). Women's strategies for handling household detergents. Environmental Research, 101(2), 184-194. doi:10.1016/j.envres.2006.02.001

Hansen, S. B., & Yusoff, S. (2007). LCA case studies feasibility study of performing a life cycle assessment on crude palm oil production in Malaysia. International Journal, 12(1), 50-58.

Hatti-Kaul, R., Tornvall, U., Gustafsson, L., & Borjesson, P. (2006). Industrial biotechnology for the production of bio-based chemicals: A cradle-to-grave perspective. Trends in Biotechnology, 25(3), 119-124.

Hellweg, S., Wernet, G., Mutel, C., & Hungerbuhler, K. (2010). The environmental importance of energy use in chemical production. Journal of Industrial Ecology, 15(1), 96-107.

I Innovations for Greenhouse Gas Reductions. (2009). A life cycle quantification of carbon abatement solutions enabled by the chemical industry. International Council of Chemical Associations (ICCA). Retrieved from: http://www.icca-chem.org/ICCADocs/ICCA_A4_LR.pdf

International Association for Soaps, Detergents and Maintenance Products: AISE (2010). Charter for sustainable cleaning. CSP Detailed Explanation. Version 2.0.

J Johansen, D. J. D. (2003). Fragrance contact allergy. American Journal of Clinical Dermatology, 4(11), 789 - 798. doi:10.2165/00128071-200304110-00006

K Koehler, A., & Wildbolz, C. (2009). Comparing the environmental footprints of home-care and personal-hygiene products: The Relevance of Different Life-Cycle Phases. Environmental Science Technology, 43(22), 8643 - 8651.

Koerner, M. (2010). LCA of clothes washing options for city west water's residential customers (Technical No. 206853-00). (p. 247). Melbourne: Arup Pty Ltd.

Koh, L. P. (2008). Can oil palm plantations be made more hospitable for forest butterflies and birds? Journal of Applied Ecology, 45(4), 1002 - 1009. doi:10.1111/j.1365-2664.2008.01491.x

L Laurance, W. F., Koh, L. P., Butler, R., Sodhi, N. S., Bradshaw, C. J. A., Neidel, J. D., & Mateo Vega, J. (2010). Improving the performance of the roundtable on sustainable palm oil for nature conservation. Conservation Biology, 24(2), 377 - 381. doi:10.1111/j.1523-1739.2010.01448.x

Lavoie, E. T., Heine, L. G., Holder, H., Rossi, M. S., Lee II, R. E., Connor, E. A., & Davies, C. L. (2011). Chemical alternatives assessment: Enabling substitution to safer chemicals. Environmental Science & Technology, 45(4), 1747 - 1747. doi:10.1021/es200029j

Lopes, E., Dias, A., Arroja, L., Capela, I., Pereira, F. (2003) Application of life cycle assessment to the Portuguese pulp and paper industry. Journal of Cleaner Production, 11, 51-59.

M Madsen, T., Boyd, H. B., Nylen, D., Pedersen, A. R., Petersen, G. I., & Simonsen, F. (2001). Environmental and health assessment of substances in household detergent and cosmetic detergent products. Environmental Project No. 615. Miljoprojekt.

Miller, M., Justiniano, M., & McQueen, S. (2005). Energy and environmental profile of the U.S. pulp and paper industry. Retrieved from http://www.energetics.com/resourcecenter/products/studies/Pages/PulpPaper-Industry-Profile.aspx

Milmo, S. (2008). Thirsty work (Business). Dow Chemical. Retrieved from www.chemistryworld.org

Mitch, W., Kemper, J. & Walse, S. (2010). Quaternary amines as nitrosamine precursors: A role for consumer products? Environmental Science Technology, 44(4), 1224-1231. http://pubs.acs.org/doi/abs/10.1021/es902840h

N National Research Council of the National Academies (U.S.). (2009). Science and decisions: Advancing risk assessment. Washington, D.C: National Academies Press.

Nazaroff, W. W. & Weschler, C. J. (2004). Cleaning products and air fresheners: Exposure to primary and secondary air pollutants. Atmospheric Environment, 38, 2841-2865.

Nellemann, C., Miles, L., Kaltenborn, B. P., Virtue, M., & Ahlenius, H. (Eds). (2007). The last stand of the orangutan - State of emergency: Illegal logging, fire and palm oil in Indonesia's national parks. United Nations Environment Programme.

Nordic Ecolabelling. (2012). Nordic Ecolabelling of Cosmetic Products, v 2.4.

O OECD. (2001). Environmental outlook for the chemicals industry. Retrieved from http://www.oecd.org/env/ehs/2375538.pdf

Overcash, M., & Kim, S. (2003). Energy in chemical manufacturing processes: Gate-to-gate information for life cycle assessment. Journal of Chemical Technology and Biotechnology, 78, 995-1005.

P PE International. (2009). Case study sanft & sicher toilet paper by dm drogeriemarkt. PCF Pilotprojekt: Germany. Retrieved from http://www.pcf-projekt.de/files/1232962631/pcf_dm_sanft_und_sicher.pdf

Pellerin, T. (2005). Optimize water use. Chemical Processing. Newsletter. Retrieved from http://www.chemicalprocessing.com/articles/2005/571/

R Rastogi, S., Heydorn, S., Johansen, J., & Basketter, D. (2001). Fragrance chemicals in domestic and occupational products. Contact Dermatitis, 45, 221-225.

Rooy, F. G. B. G. J. van, Houba, R., Palmen, N., Zengeni, M. M., Sander, I., Spithoven, J., & Heederik, D. J. J. (2009). A cross-sectional study among detergent workers exposed to liquid detergent enzymes. Occupational and Environmental Medicine, 66(11), 759-765. doi:10.1136/oem.2008.045245

Roundtable on Sustainable Palm Oil. (2007). RSPO-Principles and criteria for sustainable palm oil production. Retrieved from http://www.rspo.org/files/resource_centre/keydoc/2%20en_RSPO%20Principles%20and%20Criteria%20for%20Sustainable%20Palm%20Oil%20Production%20(2007).pdf

S Sabaliunas, D., Pittinger, C., Kessel, C., & Masscheleyn, P. (2005). Residential energy use and potential conservation through reduced laundering temperatures in the United States and Canada. Integrated Environmental Assessment and Management, 2(2), 142-153.

Sarlo, K., & Kirchner, D.B. (2002). Occupational asthma and allergy in the detergent industry: New developments. Current Opinion in Allergy and Clinical Immunology,2(2), 97-101.

SCCNEP. (1999). Fragrance allergy in consumers. A review of the problem. Analysis of the need for appropriate consumer information and identification of consumer allergens. Retrieved from http://ec.europa.eu/health/ph_risk/committees/sccp/documents/out98_en.pdf

Schneir, A. B., Rentmeester, L., Clark, R. F., & Cantrell, F. L. (2013). Toxicity following laundry detergent pod ingestion. Pediatric Emergency Care, 29(6), 741- 742. doi:10.1097/PEC.0b013e318294eb1d

Schweigert, M. K., Mackenzie, D. P. & Sarlo, K. (2000). Occupational asthma and allergy associated with the use of enzymes in the detergent industry-A review of the epidemiology, toxicology and methods of prevention. Clinical and Experimental Allergy, 30, 1511-1518.

Scientific Committee on Consumer Safety. (2012). The SCCC's notes of guidance for the testing of cosmetic substances and their safety evaluation 8th revision. Retrieved from http://ec.europa.eu/health/scientific_committees/consumer_safety/docs/sccs_s_006.pdf

Skin Deep. (2012). Environmental working group. Retrieved from http://www.ewg.org/skindeep/

Steinemann, A. (2004). Human exposure, health hazards, and environmental regulations. Environmental Impact Assessment Review, 24(7-8), 695-710. doi:10.1016/j.eiar.2004.06.002

T Tan, K. T., Lee, K. T., Mohamed, A. R., & Bhatia, S. (2009). Palm oil: Addressing issues and towards sustainable development. Renewable and Sustainable Energy Reviews, 13(2), 420-427. doi:10.1016/j.rser.2007.10.001

Teoh, C. H. (2011). Key sustainability issues in the palm oil sector. International Finance Corporation.

Ternes, T., Joss, A., & Siegrist, H. (2004). Scrutinizing pharmaceuticals and personal care products in wastewater treatment. Environmental Science & Technology, 393A-399A.

The Ashkin Group, LLC. (2011). Why ingredient disclosure is important in green cleaning. Retrieved from http://ashkingroup.com/archives/600

The Soap and Detergent Association. (1995). Work practices for handling enzymes in the detergent industry. Retrieved from http://www.aciscience.org/

The Sustainability Consortium (2011a). Product Category Life Cycle Assessment (PCLCA) Laundry Detergent. The Sustainability Consortium Sustainability Measurement and Reporting System pilot project.

Tisler T, Zagorc-Koncan J. (2003). Aquatic toxicity of selected chemicals as a basic criterion for environmental classification. Aquatic Toxicity In Environmental Classification, 54, 207-213. Retrieved from http://hrcak.srce.hr/file/842

Tsai, P.-C., & Ding, W.-H. (2004). Determination of alkyltrimethylammonium surfactants in hair conditioners and fabric softeners by gas chromatography - mass spectrometry with electron-impact and chemical ionization. Journal of Chromatography A, 1027(1 - 2), 103-108. doi:10.1016/j.chroma.2003.10.047

U U.S. Department of Energy. (2004). Energy use and loss analysis- U.S. manufacturing and mining (p. 76). Retrieved from http://www.swagelokenergy.com/download/ELAUSInd.pdf

U.S. Environmental Protection Agency. (2011b). EPA's DfE standard for safer products (DfE Standard). Retrieved from http://www.epa.gov/dfe/pubs/projects/gfcp/standard-for-safer-products.pdf

United State Environmental Protection Agency. (2010a). Design for the environment program criteria for fragrances, Version 2.0. Retrieved from http://www.epa.gov/dfe/pubs/projects/gfcp/dfe_screen_criteria_for_fragrances.pdf

V Van Hoof, G., Schowanek, D., & Feijtel, T. (2003). Comparative life-cycle assessment of laundry detergent formulations in the UK. Carl Hanser Publisher, Munich, 40(5), 266 - 275.

Vanhanen, M., Tuomi, T., Tiikkainen, U., Tupasela, O., Voutilainen, R., & Nordman, H. (2000). Risk of enzyme allergy in the detergent industry. Occupational and Environmental Medicine, 57(2), 121-125. doi:10.1136/oem.57.2.121

W Wakker, E. (2005). Greasy palms, The social and ecological impacts of large-scale oil palm plantation development in Southeast Asia. Friends of the Earth.

Wernet, G., Mutel, C., Hellweg, S., & Hungerbühler, K. (2011). The environmental importance of energy use in chemical production. Journal of Industrial Ecology, 15(1), 96–107. doi:10.1111/j.1530-9290.2010.00294.x

White, I. R., & Groot, A. C. de. (2006). Cosmetics and skin care products. In P. J. Frosch, T. Menné, J.-P. Lepoittevin (Eds.), Contact Dermatitis (pp. 493 - 506). Springer Berlin Heidelberg. Retrieved from http://link.springer.com.ezproxy1.lib.asu.edu/chapter/10.1007/3-540-31301-X_30

Y Yi, J. Z., & Zhang, L. . (2008). Removal of methylene blue dye from aqueous solution by adsorption onto sodium humate/polyacrylamide/clay hybrid hydrogels. Bioresource Technology, 99, 2182–2186. doi:10.1016/j.biortech.2007.05.028

Release Notes

*** 05.01.10, May 2021 ***
- Added hotspots, improvement opportunities, and references for newly added KPI(s) or response options.
- Removed hotspots, improvement opportunities, and references for removed KPI(s) or response options.
- In-text references and broken resource links (URLs) included in the KPI guidance were updated to the most recent available versions. Where no alternative resource was available, the item was substituted with a comparable resource or was removed.
The KPI “Consumer communication - Dosage control” has been deleted as part of the 2021 revision cycle due to this KPI meeting criteria for problematic scoring, answerability, or year over year tracking.
Palm Oil, Palm Kernel Oil, and Derivative Ingredient Sourcing (replaced previous “Palm Oil Sourcing” KPI):
- Question: The question text was updated to reflect the response options below.
- Question and Response Options: Text was updated to track the percentages of palm oil and palm-oil derived ingredients that are Certified Sustainable Palm Oil (CSPO) purchased through RSPO book and claim, mass balance, segregated, and identity preserved supply chain models have been added.
- Calculation & Scope: Text added to support the new response options above.
- Certifications, Standards & Tools: References have been kept where applicable and added where needed to support the new response options above.
- Definitions: Updated to reflect the changes above.
NEW KPI - “Product Certifications”
NEW KPI - “Packaging – Recycle Labeling”
*** 5.00.10, May 2020 ***

In-text references and broken resource links (URLs) included in the KPI guidance were updated to the most recent available versions.

*** 5.00.10, June 2019 ***

This KPI set has been aligned with KPIs from the Beauty and Personal Care (BPC) Sustainability Product Rating System. In this alignment, BPC versions of KPIs have replaced those covering the same topics in the previous version of this KPI set. This alignment affects the following KPIs in this set:
• Chemical footprint
• Formulation - Chemical selection
• Ingredient disclosure to manufacturers
• Risk assessment and product safety
• Palm oil sourcing
• Greenhouse gas - Supply chain
• Water use – Formulation raw material suppliers
• Use phase – Messaging and design

Worker Health and Safety - Supply chain KPI response options and guidance updated. Other KPIs that have no direct analogue with the BPC Rating System remain in this KPI set and have not been changed from the previous version beyond correction of broken links in Related Information.

*** 04.02.10, June 2018 ***

Broken links referenced in the KPI guidance were corrected.

KPI guidance language referencing CDP's Information Requests for Climate Change and Water were updated to reflect the 2018 versions.

*** 04.02.10, June 2017 ***

Language referring to the "last twelve months" or "the past year" was removed from the question and/or response options text to avoid any confusion with the related statement in the "Calculation and Scope" of the Guidance. The following KPIs were affected:
- Greenhouse gas emissions - Supply chain
- Use phase messaging
- Worker Health and Safety - Manufacturing
- Worker health and safety - Supply chain

Ingredient disclosure - Business to consumer
- Title changed from "Ingredient transparency - Business to consumer"
- To decrease reporting burden for responders, the units for this KPI have been changed from "by revenue" to "by units sold".

- Additionally, manufacturer efforts to disclose ingredient identity on label and ingredient function on label or electronically have been incorporated into new response options.
- Guidance has been updated throughout to reflect these changes.

TSC's Multi-stakeholder Process

The Sustainability Consortium (TSC) is a multi-stakeholder organization comprised of leading companies, non-profit organizations, and other members that represent broad perspectives on sustainability. To build a KPI set that can be deployed widely, TSC acknowledges that members have diverse points of view. As such, the attributes, activities, KPIs, and scoring used in this KPI set represent a composite perspective of the current market and are not necessarily the views, policies, or program of any single member of TSC.

Disclaimer

Arizona State University and University of Arkansas, administrating universities of The Sustainability Consortium, are furnishing this item "as is." TSC does not provide any warranty of the item whatsoever, whether expressed, implied or statutory, including but not limited to, direct, indirect, special, or consequential damages arising out of, resulting from, or any way connected to the use of the item, whether or not based upon warranty, contract, tort, or otherwise; whether or not injury was sustained by persons or property or otherwise; and whether or not loss was sustained from, or arose out of, the results of the item, or any services that may be provided by The Sustainability Consortium.