SASB STANDARDS
Now part of IFRS Foundation

Containers & Packaging

Sustainability Accounting Standard

RESOURCE TRANSFORMATION SECTOR

Sustainable Industry Classification System® (SICS®) RT-CP

Under Stewardship of the International Sustainability Standards Board

INDUSTRY STANDARD | VERSION 2023-12

IFRS Sustainability

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ABOUT THE SASB STANDARDS

As of August 2022, the International Sustainability Standards Board (ISSB) of the IFRS Foundation assumed responsibility for the SASB Standards. The ISSB has committed to maintain, enhance and evolve the SASB Standards and encourages preparers and investors to continue to use the SASB Standards.

IFRS S1 *General Requirements for Disclosure of Sustainability-related Financial Information* (IFRS S1) requires entities to refer to and consider the applicability of disclosure topics in the SASB Standards when identifying sustainability-related risks and opportunities that could reasonably be expected to affect an entity's prospects. Similarly, IFRS S1 requires entities to refer to and consider the applicability of metrics in the SASB Standards when determining what information to disclose regarding sustainability-related risks and opportunities.

In June 2023, the ISSB amended climate-related topics and metrics in the SASB Standards to align them with the industry-based guidance accompanying IFRS S2 *Climate-related Disclosures*. In December 2023, the ISSB amended the non-climate-related topics and metrics in connection with the International Applicability of SASB Standards project.

Effective Date

This version 2023-12 of the Standard is effective for all entities for annual periods beginning or after January 1, 2025. Early adoption is permitted for all entities.

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INTRODUCTION

Overview of SASB Standards

The SASB Standards are a set of 77 industry-specific sustainability accounting standards ("SASB Standards" or "Industry Standards"), categorised pursuant to the Sustainable Industry Classification System® (SICS®).

SASB Standards include:

1. **Industry descriptions** – which are intended to help entities identify applicable industry guidance by describing the business models, associated activities and other common features that characterise participation in the industry.

2. **Disclosure topics** – which describe specific sustainability-related risks or opportunities associated with the activities conducted by entities within a particular industry.

3. **Metrics** – which accompany disclosure topics and are designed to, either individually or as part of a set, provide useful information regarding an entity's performance for a specific disclosure topic.

4. **Technical protocols** – which provide guidance on definitions, scope, implementation and presentation of associated metrics.

5. **Activity metrics** – which quantify the scale of specific activities or operations by an entity and are intended for use in conjunction with the metrics referred to in point 3 to normalise data and facilitate comparison.

Entities using the SASB Standards as part of their implementation of ISSB Standards should consider the relevant ISSB application guidance.

For entities using the SASB Standards independently from ISSB Standards, the *SASB Standards Application Guidance* establishes guidance applicable to the use of all Industry Standards and is considered part of the Standards. Unless otherwise specified in the technical protocols contained in the Industry Standards, the guidance in the SASB Standards Application Guidance applies to the definitions, scope, implementation, compilation and presentation of the metrics in the Industry Standards.

Historically, the *SASB Conceptual Framework* set out the basic concepts, principles, definitions and objectives that guided the SASB Standards Board in its approach to setting standards for sustainability accounting.

Use of the Standards

SASB Standards are intended to aid entities in disclosing information about sustainability-related risks and opportunities that could reasonably be expected to affect the entity's cash flows, its access to finance or cost of capital over the short, medium or long term. An entity determines which Industry Standard(s) and which disclosure topics are relevant to its business, and which associated metrics to report. In general, an entity should use the SASB Standard specific to its primary industry as identified in SICS® . However, companies with substantial business in multiple SICS® industries should refer to and consider the applicability of the disclosure topics and associated metrics in additional SASB Standards.

The disclosure topics and associated metrics contained in this Standard have been identified as those that are likely to be useful to investors. However, the responsibility for making materiality judgements and determinations rests with the reporting entity.

Industry Description

Containers and packaging industry entities convert raw materials including metal, plastic, paper and glass, into semi-finished or finished packaging products. Entities produce a wide range of products, including corrugated cardboard packaging, food and beverage containers, bottles for household products, aluminium cans, steel drums and other forms of packaging. Entities in the industry typically function as business-to-business entities and many operate globally.

SUSTAINABILITY DISCLOSURE TOPICS & METRICS

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Greenhouse Gas Emissions	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	Quantitative	Metric tonnes (t) CO_2-e, Percentage (%)	RT-CP-110a.1
	Discussion of long- and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets and an analysis of performance against those targets	Discussion and Analysis	n/a	RT-CP-110a.2
Air Quality	Air emissions of the following pollutants: (1) NO_x (excluding N_2O), (2) SO_x, (3) volatile organic compounds (VOCs), and (4) particulate matter (PM)	Quantitative	Metric tonnes (t)	RT-CP-120a.1
Energy Management	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable and (4) total self-generated energy	Quantitative	Gigajoules (GJ), Percentage (%)	RT-CP-130a.1
Water Management	(1) Total water withdrawn, (2) total water consumed; percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic metres (m^3), Percentage (%)	RT-CP-140a.1
	Description of water management risks and discussion of strategies and practices to mitigate those risks	Discussion and Analysis	n/a	RT-CP-140a.2
	Number of incidents of non-compliance associated with water quality permits, standards and regulations	Quantitative	Number	RT-CP-140a.3
Waste Management	Amount of hazardous waste generated, percentage recycled	Quantitative	Metric tonnes (t), Percentage (%)	RT-CP-150a.1
Product Safety	(1) Number of recalls issued, (2) total units recalled [1]	Quantitative	Number	RT-CP-250a.1
	Discussion of process to identify and manage emerging materials and chemicals of concern	Discussion and Analysis	n/a	RT-CP-250a.2

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[1] Note to **RT-CP-250a.1** – The entity shall discuss notable recalls, such as those that affected a significant number of products, a significant number of units of a given product, or those related to serious injuries or fatalities.

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TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Product Lifecycle Management	Percentage of raw materials from: (1) recycled content, (2) renewable resources, and (3) renewable and recycled content	Quantitative	Percentage (%) by weight	RT-CP-410a.1
	Revenue from products that are reusable, recyclable, or compostable	Quantitative	Presentation currency	RT-CP-410a.2
	Discussion of strategies to reduce the environmental impact of packaging throughout its lifecycle	Discussion and Analysis	n/a	RT-CP-410a.3
Supply Chain Management	Total wood fibre procured; percentage from certified sources	Quantitative	Metric tonnes (t), Percentage (%)	RT-CP-430a.1
	Total aluminium purchased; percentage from certified sources	Quantitative	Metric tonnes (t), Percentage (%)	RT-CP-430a.2

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Amount of production, by substrate[2]	Quantitative	Metric tonnes (t)	RT-CP-000.A
Percentage of production as: (1) paper/wood, (2) glass, (3) metal, and (4) plastic	Quantitative	Percentage (%) by revenue	RT-CP-000.B
Number of employees	Quantitative	Number	RT-CP-000.C

[2] Note to **RT-CP-000.A** – Relevant substrates include paper or wood fibre, glass, metal, and petroleum-based substrates (polymers).

Greenhouse Gas Emissions

Topic Summary

The Containers & Packaging industry generates direct (Scope 1) greenhouse gas (GHG) emissions from fossil fuel combustion in manufacturing and cogeneration processes. GHG emissions may result in regulatory compliance costs or penalties and operating risks for entities. However, the financial effects may vary depending on the magnitude of emissions and the prevailing emissions regulations. The industry may be subject to increasingly stringent regulations as countries try to limit or reduce emissions. Entities that cost-effectively manage GHG emissions through greater energy efficiency, the use of alternative fuels or manufacturing process advances could benefit from improved operating efficiency and reduced regulatory risk, among other financial benefits.

Metrics

RT-CP-110a.1. Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations

1 The entity shall disclose its gross global Scope 1 greenhouse gas (GHG) emissions to the atmosphere of the seven GHGs covered under the Kyoto Protocol—carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF_6), and nitrogen trifluoride (NF_3).

1.1 Emissions of all GHGs shall be consolidated and disclosed in metric tonnes of carbon dioxide equivalents (CO_2-e) and calculated in accordance with published 100-year time horizon global warming potential (GWP) values. To date, the preferred source for GWP values is the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (2014).

1.2 Gross emissions are GHGs emitted into the atmosphere before accounting for offsets, credits or other similar mechanisms that have reduced or compensated for emissions.

2 Scope 1 emissions are defined and shall be calculated according to the methodology contained in *The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard* (GHG Protocol), Revised Edition, March 2004, published by the World Resources Institute and the World Business Council on Sustainable Development (WRI/WBCSD).

2.1 Acceptable calculation methodologies include those that conform to the GHG Protocol as the base reference, but provide additional guidance, such as industry- or region-specific guidance. Examples may include:

2.1.1 *GHG Reporting Guidance for the Aerospace Industry* published by the International Aerospace Environmental Group (IAEG)

2.1.2 *Greenhouse Gas Inventory Guidance: Direct Emissions from Stationary Combustion Sources* published by the US Environmental Protection Agency (EPA)

2.1.3 India GHG Inventory Program

2.1.4 ISO 14064-1

2.1.5 *Petroleum Industry Guidelines for Reporting GHG Emissions*, 2nd edition, 2011, published by Ipieca

2.1.6 *Protocol for the Quantification of Greenhouse Gas Emissions from Waste Management Activities* published by Entreprises pour l'Environnement (EpE)

2.2 GHG emissions data shall be consolidated and disclosed according to the approach with which the entity consolidates its financial reporting data, which generally is aligned with the 'financial control' approach defined by the GHG Protocol, and the approach published by the Climate Disclosure Standards Board (CDSB) described in REQ-07, 'Organisational boundary', of the *CDSB Framework for reporting environmental and social information*.

3 The entity shall disclose the percentage of its gross global Scope 1 GHG emissions covered under an emissions-limiting regulation or programme intended to limit or reduce emissions directly, such as cap-and-trade schemes, carbon tax or fee systems, and other emissions control (for example, command-and-control approach) and permit-based mechanisms.

3.1 Examples of emissions-limiting regulations include:

3.1.1 California Cap-and-Trade (California Global Warming Solutions Act)

3.1.2 European Union Emissions Trading Scheme (EU ETS)

3.1.3 Quebec Cap-and-Trade (Quebec Environment Quality Act)

3.2 The percentage shall be calculated as the total amount of gross global Scope 1 GHG emissions (CO_2-e) covered under emissions-limiting regulations divided by the total amount of gross global Scope 1 GHG emissions (CO_2-e).

3.2.1 For emissions subject to more than one emissions-limiting regulation, the entity shall not account for those emissions more than once.

3.3 The scope of emissions-limiting regulations excludes emissions covered under voluntary emissions-limiting regulations (for example, voluntary trading systems), as well as reporting-based regulations.

4 The entity may discuss any change in its emissions from the previous reporting period, including whether the change was because of emissions reductions, divestment, acquisition, mergers, changes in output or changes in calculation methodology.

5 In the case that current reporting of GHG emissions to the CDP or other entity (for example, a national regulatory disclosure programme) differs in terms of the scope and consolidation approach used, the entity may disclose those emissions. However, primary disclosure shall be according to the guidelines described above.

6 The entity may discuss the calculation methodology for its emissions disclosure, such as if data are from continuous emissions monitoring systems (CEMS), engineering calculations or mass balance calculations.

RT-CP-110a.2. Discussion of long- and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets and an analysis of performance against those targets

1 The entity shall discuss its long- and short-term strategy or plan to manage its Scope 1 greenhouse gas (GHG) emissions.

1.1 Scope 1 emissions are defined and shall be calculated according to the methodology contained in *The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard* (GHG Protocol), Revised Edition, March 2004, published by the World Resources Institute and the World Business Council on Sustainable Development (WRI/WBCSD).

1.2 The scope of GHG emissions includes the seven GHGs covered under the Kyoto Protocol—carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF_6), and nitrogen trifluoride (NF_3).

2 The entity shall discuss its emission reduction target(s) and analyse its performance against the target(s), including, if relevant:

2.1 The scope of the emission reduction target (for example, the percentage of total emissions to which the target is applicable);

2.2 Whether the target is absolute or intensity-based and the metric denominator if it is an intensity-based target;

2.3 The percentage reduction against the base year, with the base year representing the first year against which emissions are evaluated towards the achievement of the target;

2.4 The time lines for the reduction activity, including the start year, the target year and the base year;

2.5 The mechanism(s) for achieving the target; and

2.6 Any circumstances in which the target or base year emissions have been, or may be, recalculated retrospectively or the target or base year has been reset.

3 The entity shall discuss the activities and investments required to achieve the plans or targets, and any risks or limiting factors that might affect achievement of the plans or targets.

4 The entity shall discuss the scope of its strategies, plans or reduction targets, such as whether they pertain differently to different business units, geographies or emissions sources.

5 The entity shall discuss whether its strategies, plans or reduction targets are related to, or associated with, emissions limiting or emissions reporting-based programmes or regulations (for example, the EU Emissions Trading Scheme, Quebec Cap-and-Trade System, California Cap-and-Trade Program), including regional, national, international or sectoral programmes.

6 Disclosure of strategies, plans or reduction targets shall be limited to activities that were ongoing (active) or reached completion during the reporting period.

Air Quality

Topic Summary

In addition to greenhouse gases (GHGs), containers and packaging manufacturing may produce air emissions, which may include sulphur dioxides (SOx), nitrogen oxides (NOx) and particulate matter (PM). As with GHGs, these emissions typically stem from fuel combustion to produce energy. Relative to other industries, the Containers & Packaging industry is a significant source of some of these emissions. Although related financial effects may vary depending on the magnitude of emissions and the prevailing regulations, entities face operating costs, regulatory compliance costs, regulatory penalties in the event of non-compliance and capital expenditures related to emissions management. As such, entities may manage the issue through technological process improvements or other strategies that can mitigate such impacts, improving financial performance and enhancing brand value.

Metrics

RT-CP-120a.1. Air emissions of the following pollutants: (1) NO_x (excluding N_2O), (2) SO_x, (3) volatile organic compounds (VOCs), and (4) particulate matter (PM)

1 The entity shall disclose emissions of air pollutants, in metric tonnes per pollutant, released into the atmosphere.

1.1 The scope of the disclosure includes air pollutants associated with the entity's direct air emissions resulting from all the entity's activities and sources of emissions, which may include stationary or mobile sources, production facilities, office buildings and transportation fleets.

2 The entity shall disclose its emissions of (1) oxides of nitrogen (NO_X), reported as NO_X.

2.1 The scope of NO_X includes NO and NO_2 but excludes N_2O.

3 The entity shall disclose its emissions of (2) oxides of sulphur (SO_X), reported as SO_X.

3.1 The scope of SO_X includes SO_2 and SO_3.

3.2 The entity may report its oxides of sulphur emissions as total sulphur dioxide (SO_2).

4 The entity shall disclose its emissions of (3) non-methane volatile organic compounds (VOCs).

4.1 VOCs are defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate and methane, that participates in atmospheric photochemical reactions, except those designated under applicable jurisdictional laws or regulations as having negligible photochemical reactivity.

4.2 If applicable regulatory definitions of VOCs conflict with this definition, the entity may define VOCs in accordance with the applicable jurisdictional legal or regulatory definition. In this case, the entity shall identify the source of the definition.

5 The entity shall disclose its emissions of (4) particulate matter 10 micrometres or less in diameter (PM_{10}), reported as PM_{10}.

5.1 PM_{10} is defined as any airborne finely divided solid or liquid material with an aerodynamic diameter less than or equal to a nominal 10 micrometres.

5.2 The entity may instead report its particulate matter emissions as total filterable particulate matter.

6 The entity may discuss the calculation method for its emissions disclosure, such as whether data is from continuous emissions monitoring systems (CEMS), engineering calculations or mass balance calculations.

Energy Management

Topic Summary

Containers and packaging manufacturing is energy-intensive, with energy used to power processing units, cogeneration plants, machinery and non-manufacturing facilities. The type of energy used, amount consumed and energy management strategies depend on the type of products manufactured. Typically, fossil fuels such as natural gas and biomass are the predominant form of energy used, while purchased electricity also may be a significant share. Therefore, energy purchases may be a significant share of production costs. An entity's energy mix may include energy generated on site, purchased grid electricity and fossil fuels, and renewable and alternative energy. Trade-offs in the use of such energy sources include cost, reliability of supply, related water use and air emissions, and regulatory compliance and risk. As such, an entity's energy intensity and energy sourcing decisions may affect its operating efficiency and risk profile over time.

Metrics

RT-CP-130a.1. (1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable and (4) total self-generated energy

1 The entity shall disclose (1) the total amount of energy it consumed as an aggregate figure, in gigajoules (GJ).

1.1 The scope of energy consumption includes energy from all sources, including energy purchased from external sources and energy produced by the entity itself (self-generated). For example, direct fuel usage, purchased electricity, heating, cooling and steam energy all are included within the scope of energy consumption.

1.2 The scope of energy consumption includes only energy directly consumed by the entity during the reporting period.

1.3 In calculating energy consumption from fuels and biofuels, the entity shall use higher heating values (HHV), also known as gross calorific values (GCV), which are measured directly or taken from the Intergovernmental Panel on Climate Change (IPCC).

2 The entity shall disclose (2) the percentage of energy it consumed that was supplied from grid electricity.

2.1 The percentage shall be calculated as purchased grid electricity consumption divided by total energy consumption.

3 The entity shall disclose (3) the percentage of energy it consumed that was renewable energy.

3.1 Renewable energy is defined as energy from sources that are replenished at a rate greater than or equal to their rate of depletion, such as geothermal, wind, solar, hydro and biomass.

3.2 The percentage shall be calculated as renewable energy consumption divided by total energy consumption.

3.3 The scope of renewable energy includes renewable fuel the entity consumed, renewable energy the entity directly produced and renewable energy the entity purchased, if purchased through a renewable power purchase agreement (PPA) that explicitly includes renewable energy certificates (RECs) or Guarantees of Origin (GOs), a Green-e Energy Certified utility or supplier programme, or other green power products that explicitly include RECs or GOs, or for which Green-e Energy Certified RECs are paired with grid electricity.

3.3.1 For any renewable electricity generated on site, any RECs and GOs shall be retained (not sold) and retired or cancelled on behalf of the entity for the entity to claim them as renewable energy.

3.3.2 For renewable PPAs and green power products, the agreement shall explicitly include and convey that RECs and GOs be retained or replaced and retired or cancelled on behalf of the entity for the entity to claim them as renewable energy.

3.3.3 The renewable portion of the electricity grid mix outside of the control or influence of the entity is excluded from the scope of renewable energy.

3.4 For the purposes of this disclosure, the scope of renewable energy from biomass sources is limited to materials certified to a third-party standard (for example, Forest Stewardship Council, Sustainable Forest Initiative, Programme for the Endorsement of Forest Certification or American Tree Farm System), materials considered eligible sources of supply according to the *Green-e Framework for Renewable Energy Certification, Version 1.0* (2017) or Green-e regional standards, or materials eligible for an applicable jurisdictional renewable portfolio standard.

4 The entity shall disclose (4) the amount of energy self-generated as an aggregate figure, in gigajoules (GJ).

4.1 The entity may disclose the amount of self-generated energy sold to an electric utility or end-use customer.

5 The entity shall apply conversion factors consistently for all data reported under this disclosure, such as the use of HHVs for fuel usage (including biofuels) and conversion of kilowatt hours (kWh) to GJ (for energy data including electricity from solar or wind energy).

Water Management

Topic Summary

Containers and packaging manufacturing requires water for various stages of production including in raw materials processing, process cooling and steam generation at on site cogeneration plants. Long-term historical increases in water scarcity and cost, and expectations of continued increases—because of over-consumption and reduced supplies resulting from population growth and shifts, pollution and climate change—show the importance of water management. Water scarcity may result in a higher risk of operational disruption for entities with water-intensive operations, and can increase water procurement costs and capital expenditures. Meanwhile, containers and packaging manufacturing may generate process wastewater that must be treated before disposal. Non-compliance with water quality regulations may result in regulatory compliance and mitigation costs or legal expenses stemming from litigation. Reducing water use and consumption through increased efficiency and other water management strategies may result in lower operating costs over time and may mitigate financial effects of regulations, water supply shortages and community-related disruptions of operations.

Metrics

RT-CP-140a.1. (1) Total water withdrawn, (2) total water consumed; percentage of each in regions with High or Extremely High Baseline Water Stress

1 The entity shall disclose the amount of water, in thousands of cubic metres, withdrawn from all sources.

1.1 Water sources include surface water (including water from wetlands, rivers, lakes and oceans), groundwater, rainwater collected directly and stored by the entity, and water and wastewater obtained from municipal water supplies, water utilities or other entities.

2 The entity may disclose portions of its supply by source if, for example, significant portions of withdrawals are from non-freshwater sources.

2.1 Fresh water may be defined according to the local laws and regulations where the entity operates. If no legal definition exists, fresh water shall be considered to be water that has less than 1,000 parts per million of dissolved solids.

2.2 Water obtained from a water utility in compliance with jurisdictional drinking water regulations can be assumed to meet the definition of fresh water.

3 The entity shall disclose the amount of water, in thousands of cubic metres, consumed in operations.

3.1 Water consumption is defined as:

3.1.1 Water that evaporates during withdrawal, use and discharge

3.1.2 Water that is directly or indirectly included in the entity's product or service

3.1.3 Water that does not otherwise return to the same catchment area from which it was withdrawn, such as water returned to another catchment area or the sea

4 The entity shall analyse all its operations for water risks and identify activities that withdraw and consume water in locations with High (40–80%) or Extremely High (>80%) Baseline Water Stress as classified by the World Resources Institute's (WRI) Water Risk Atlas tool, Aqueduct.

5 The entity shall disclose water withdrawn in locations with High or Extremely High Baseline Water Stress as a percentage of the total water withdrawn.

6 The entity shall disclose water consumed in locations with High or Extremely High Baseline Water Stress as a percentage of the total water consumed.

RT-CP-140a.2. Description of water management risks and discussion of strategies and practices to mitigate those risks

1 The entity shall describe its water management risks associated with water withdrawals, water consumption and discharge of water or wastewater.

1.1 Risks associated with water withdrawals and water consumption include risks to the availability of adequate, clean water resources, which include:

1.1.1 Environmental constraints—such as operating in water-stressed regions, drought, concerns of aquatic impingement or entrainment, interannual or seasonal variability, and risks from the impact of climate change

1.1.2 Regulatory and financial constraints—such as volatility in water costs, stakeholder perceptions and concerns related to water withdrawals (for example, those from local communities, non-governmental organisations and regulatory agencies), direct competition with and impact from the actions of other users (for example, commercial and municipal users), restrictions to withdrawals because of regulations, and constraints on the entity's ability to obtain and retain water rights or permits

1.2 Risks associated with the discharge of water or wastewater include the ability to obtain rights or permits related to discharges, regulatory compliance related to discharges, restrictions to discharges, the ability to maintain control over the temperature of water discharges, liabilities, reputational risks and increased operating costs because of regulation, stakeholder perceptions and concerns related to water discharges (for example, those from local communities, non-governmental organisations and regulatory agencies).

2 The entity may describe water management risks in the context of:

2.1 How risks may vary by withdrawal source, including surface water (including water from wetlands, rivers, lakes and oceans), groundwater, rainwater collected directly and stored by the entity, and water and wastewater obtained from municipal water supplies, water utilities or other entities; and

2.2 How risks may vary by discharge destinations, including surface water, groundwater or wastewater utilities.

3 The entity may discuss the potential effects that water management risks may have on its operations and the time line over which such risks are expected to manifest.

3.1 Effects include those associated with costs, revenue, liabilities, continuity of operations and reputation.

4 The entity shall discuss its short- and long-term strategies or plans to mitigate water management risks, which include:

4.1 The scope of its strategy, plans, goals or targets, such as how they relate to various business units, geographies or water-consuming operational processes.

4.2 Any water management goals or targets it has prioritised, and an analysis of performance against those goals or targets.

4.2.1 Goals and targets include those associated with reducing water withdrawals, reducing water consumption, reducing water discharges, reducing aquatic impingements, improving the quality of water discharges and regulatory compliance.

4.3 The activities and investments required to achieve the plans, goals or targets, and any risks or limiting factors that might affect achievement of the plans or targets.

4.4 Disclosure of strategies, plans, goals or targets shall be limited to activities that were ongoing (active) or reached completion during the reporting period.

5 For water management targets, the entity shall additionally disclose:

5.1 Whether the target is absolute or intensity-based, and the metric denominator if it is an intensity-based target.

5.2 The time lines for the water management activities, including the start year, the target year and the base year.

5.3 The mechanism(s) for achieving the target, including:

5.3.1 Efficiency efforts, such as the use of water recycling or closed-loop systems;

5.3.2 Product innovations, such as redesigning products or services to require less water;

5.3.3 Process and equipment innovations, such as those that enable the reduction of aquatic impingements or entrainments;

5.3.4 Use of tools and technologies (for example, the World Wildlife Fund Water Risk Filter, the Global Water Tool and Water Footprint Network Footprint Assessment Tool) to analyse water use, risks and opportunities; and

5.3.5 Collaborations or programmes in place with the community or other organisations

5.4 The percentage reduction or improvement from the base year, in which the base year is the first year against which water management targets are evaluated towards the achievement of the target.

6 The entity shall discuss whether its water management practices result in any additional lifecycle impacts or trade-offs in its organisation, including trade-offs in land use, energy production and greenhouse gas (GHG) emissions, and why the entity chose these practices despite lifecycle trade-offs.

RT-CP-140a.3. Number of incidents of non-compliance associated with water quality permits, standards and regulations

1 The entity shall disclose the total number of incidents of non-compliance, including violations of a technology-based standard and exceedances of quantity or quality-based standards.

2 The scope of disclosure includes incidents governed by applicable jurisdictional statutory permits and regulations, which include the discharge of a hazardous substance, violation of pre-treatment requirements or total maximum daily load (TMDL) exceedances.

3 The scope of disclosure shall only include incidents of non-compliance that resulted in a formal enforcement action(s).

3.1 Formal enforcement actions are defined as governmental actions that address a violation or threatened violation of water quantity or quality laws, regulations, policies or orders, and can result in administrative penalty orders, administrative orders and judicial actions, among others.

4 Violations shall be disclosed, regardless of their measurement methodology or frequency. These include violations for:

4.1 Continuous discharges, limitations, standards and prohibitions that are generally expressed as maximum daily, weekly and monthly averages; and

4.2 Non-continuous discharges, limitations that are generally expressed in terms of frequency, total mass, maximum rate of discharge and mass or concentration of specified pollutants.

Waste Management

Topic Summary

Containers and packaging manufacturing may generate hazardous process waste which may include heavy metals, spent acids, catalysts and wastewater treatment sludge. Entities face regulatory and operational challenges in managing waste because some wastes are subject to regulations pertaining to its transport, treatment, storage and disposal. Waste management strategies include reduced generation, effective treatment and disposal, and recycling and recovery, if possible. Such activities, while requiring initial investment or operating costs, may reduce an entity's long-term cost structure and mitigate the risk of remediation liabilities or regulatory penalties.

Metrics

RT-CP-150a.1. Amount of hazardous waste generated, percentage recycled

1 The entity shall calculate and disclose the total amount of hazardous waste generated, in metric tonnes.

1.1 Hazardous wastes are defined in accordance with the applicable jurisdictional legal or regulatory framework(s) where the waste was generated.

2 The entity shall calculate and disclose the percentage of hazardous waste recycled as the total weight of hazardous waste generated that was recycled, divided by the total weight of hazardous waste generated.

2.1 Hazardous waste that is reused, reclaimed or remanufactured shall be considered within the scope of recycled.

2.2 Recycled, reused, reclaimed and remanufactured hazardous waste is defined in accordance with the applicable jurisdictional legal or regulatory framework(s) where the waste was generated.

2.3 Materials incinerated, including for energy recovery, shall not be considered within the scope of recycled.

2.3.1 Energy recovery is defined as the use of combustible waste to generate energy through direct incineration, with or without other waste, but with recovery of the heat.

2.3.2 The entity may separately disclose the percentage of hazardous waste generated that was incinerated.

3 The entity may use the United Nations Environmental Programme (UNEP) *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal* for the purposes of defining hazardous waste or recycled hazardous waste for operations located in jurisdictions that lack applicable legal or regulatory definitions.

4 The entity shall disclose the legal or regulatory framework(s) used to define hazardous waste and recycled hazardous waste, and the amounts defined in accordance with each applicable framework.

Product Safety

Topic Summary

Container and packaging product safety is a critical factor for the industry since many products are used in consumer-facing applications including in the food and healthcare industries. Aspects of packaging safety include physical hazards and the presence of potentially hazardous chemical substances. In the event of a product safety incident, products may be recalled or require redesign, possibly increasing costs to the manufacturer and resulting in reduced revenue and adverse impacts to brand value. As such, entities that proactively manage product safety risks may enhance their brand reputation and reduce adverse financial impacts.

Metrics

RT-CP-250a.1. (1) Number of recalls issued, (2) total units recalled

1 The entity shall disclose (1) the total number of product recalls it issued during the reporting period, including those that are voluntary and involuntary.

1.1 A recall is defined as any repair, replacement, refund or notice/warning programme intended to protect consumers from products that present a safety risk.

1.2 Involuntary recalls are those requested or mandated by applicable jurisdictional legal or regulatory authorities, and they are issued when a product does not comply with regulatory safety standards or when a safety-related defect in a product is identified.

1.3 Voluntary recalls are those initiated by the entity to remove products from the market for safety-related concerns.

2 The entity shall disclose (2) the total number of units subject to product recalls.

3 The entity may separately disclose the percentage of recalls that were (a) voluntary and (b) involuntary.

Note to **RT-CP-250a.1**

1 The entity shall discuss notable recalls, such as those that affected a significant number of products, a significant number of units of one product, or those related to serious injuries or fatalities.

1.1 A recall may be considered notable if it is mentioned in periodic jurisdictional recall reports.

2 For such recalls, the entity may provide:

2.1 a description and cause of the recall issue;

2.2 the total number of units recalled;

2.3 the cost to remedy the issue;

2.4 whether the recall was voluntary or involuntary;

2.5 corrective actions; and

2.6 any other significant outcomes (for example, legal proceedings or fatalities).

RT-CP-250a.2. Discussion of process to identify and manage emerging materials and chemicals of concern

1 The entity shall discuss how it manages the use of materials, chemicals and substances that may be hazardous to human health or the environment, presenting concerns for consumers, customers (for example, retailers and commercial buyers), regulators or others (for example, non-governmental organisations or scientific researchers).

1.1 Materials, chemicals and substances include individual compounds, classes of chemicals and categories of chemicals.

2 At a minimum, the entity shall discuss how it assesses materials and chemicals for hazardous characteristics and risk traits, including the operational processes it employs for these assessments and other actions it takes to manage hazards and risks.

2.1 Relevant operational processes may include:

2.1.1 product formulation and design;

2.1.2 materials and chemicals procurement; and

2.1.3 product safety testing, product labelling and product declarations (for example, material safety data sheets).

2.2 Relevant actions to discuss may include:

2.2.1 exclusion of substances (for example, use of banned substances lists);

2.2.2 use of material substitution assessments, tools and screening methods (for example, GreenScreen® For Safer Chemicals or CleanGredients® Data Verification);

2.2.3 implementation of ISO 18602 *Packaging and the environment—Optimization of the packaging system*, which includes criteria for determining the amount and minimisation of hazardous constituents and determining the amount of four heavy metals (lead, cadmium, mercury and hexavalent chromium) in packaging; and

2.2.4 performance on The Consumer Goods Forum's *Global Protocol on Packaging Sustainability 2.0* metrics for Impact on Human Health.

3 Emerging materials and chemicals of concern may include:

3.1 plasticisers, such as phthalates and BPA;

3.2 specific phenols and phenol derivatives such as butylated hydroxytoluene and pentachlorophenol; and

3.3 preservatives, such as formaldehyde.

Product Lifecycle Management

Topic Summary

Containers and packaging entities face opportunities and challenges associated with the potential environmental impacts of their products throughout their lifecycle. Designing products with reduced use-phase and end-of-life environmental impacts is an important opportunity for manufacturers. Demand for packaging produced with safer chemicals and using recycled and renewable materials continues to grow, along with demand for recyclable, reusable and compostable products. Although the lifecycle impact of products depends largely on their use and disposal, entities that effectively optimise such attributes during the design phase may gain a competitive advantage.

Metrics

RT-CP-410a.1. Percentage of raw materials from: (1) recycled content, (2) renewable resources, and (3) renewable and recycled content

1 The entity shall disclose (1) the percentage of raw materials consumed, by weight, that are derived from recycled content.

1.1 Recycled content is defined, consistent with definitions in ISO 14021, *Environmental labels and declarations—Self-declared environmental claims (Type II environmental labelling)*, as the proportion, by mass, of recycled or recovered material in a product or packaging, for which only pre-consumer and post-consumer materials shall be considered as recycled content.

1.1.1 Recycled material is defined as material reprocessed from recovered (or reclaimed) material through a manufacturing process and made into a final product or a component to be integrated into a product.

1.1.2 Recovered material is defined as material that would have otherwise been discarded as waste or used for energy recovery, but which has instead been collected and recovered (or reclaimed) as a material input, in lieu of new primary material, for a recycling or manufacturing process.

1.1.3 Pre-consumer material is defined as material diverted from the waste stream during a manufacturing process. This definition excludes materials such as rework, regrind or scrap that are generated in a process and are capable of being reclaimed within the same process in which they were generated.

1.1.4 Post-consumer material is defined as material generated by households or by commercial, industrial and institutional facilities in their role as end-users of a product that can no longer be used for its intended purpose. This includes returns of material from the distribution chain.

1.2 The percentage shall be calculated as the weight of raw materials from recycled content divided by the total weight of all raw materials for products, such that:

1.2.1 the scope of raw materials in the denominator of the percentage calculation includes all inputs processed to be sold as a finished good, including recycled raw materials and virgin raw materials;

1.2.2 the weight of raw materials may be calculated as the quantity of materials in inventory at the beginning of the reporting period, plus any purchase of materials made during the reporting period, minus any materials in raw materials inventory on hand at the end of the reporting period; and

1.2.3 for paper-based products, the percentage shall be calculated as the fibre weight of raw materials from recycled content divided by the total fibre weight of all raw materials for products.

2 The entity shall disclose (2) the percentage of raw materials consumed, by weight, derived from renewable resources.

2.1 Renewable resources are defined, consistent with The Consumer Goods Forum's *Global Protocol on Packaging Sustainability 2.0*, as those composed of biomass from a living source and replenished at a rate greater than or equal to the rate of depletion, such that:

2.1.1 for the purposes of this disclosure, renewable resources include materials from virgin and recycled sources; and

2.1.2 biomass is defined as a material of biological origin, excluding peat and materials embedded in geological formations or fossilised, but including organic material (both living and dead) from above and below ground, such as trees, crops, grasses, tree litter, algae, animals and waste of biological origin (for example, manure), consistent with the *Global Protocol on Packaging Sustainability 2.0*.

2.2 The entity shall calculate the percentage as the weight of raw materials from renewable resources divided by the total weight of all raw materials for products, in which:

2.2.1 the scope of raw materials in the denominator of the percentage calculation includes all inputs processed to be sold as a finished good, including recycled raw materials and virgin raw materials; and

2.2.2 the weight of raw materials may be calculated as the quantity of materials in inventory at the beginning of the reporting period, plus any purchase of materials made during the reporting period, minus any materials in raw materials inventory on hand at the end of the reporting period.

3 The entity shall disclose (3) the percentage of raw materials consumed, by weight, that are both recycled content and renewable resources.

3.1 The entity shall refer to the definitions of recycled content and renewable resources above.

3.2 The entity shall calculate the percentage as the weight of raw materials from both renewable resources and recycled content divided by the total weight of all raw materials for products, in which:

3.2.1 the scope of raw materials in the denominator of the percentage calculation includes all inputs processed to be sold as a finished good, including recycled raw materials and virgin raw materials; and

3.2.2 the weight of raw materials may be calculated as the quantity of materials in inventory at the beginning of the reporting period, plus any purchase of materials made during the reporting period, minus any materials in raw materials inventory on hand at the end of the reporting period.

RT-CP-410a.2. Revenue from products that are reusable, recyclable, or compostable

1 The entity shall disclose its total revenue from products that are reusable, recyclable or compostable such that:

1.1 a product or packaging is defined as 'reusable' if it is conceived and designed to accomplish, within its lifecycle, a specific number of trips, rotations or uses for the same purpose for which it was conceived, consistent with definitions in ISO 18603, *Packaging and the environment—Reuse*;

1.2 a product or packaging is defined as 'recyclable' if it can be diverted from the waste stream through available processes and programmes and can be collected, processed and returned to use in the form of raw materials or products, consistent with definitions in ISO 18604, *Packaging and the environment—Material recycling*; and

1.3 a material is defined as 'compostable' if it undergoes degradation by biological processes during composting to yield CO_2, water, inorganic compounds and biomass at a rate consistent with other known compostable materials and that leaves no visible, distinguishable or toxic residue. Compostable plastics are defined further by ASTM Standard D6400, *Standard Specification for Labeling of Plastics Designed to be Aerobically Composted in Municipal or Industrial Facilities*.

1.3.1 Definitions are consistent with definitions in ISO 18606, *Packaging and the environment—Organic recycling*.

2 For products that meet more than one criterion of reusable, recyclable or compostable, the entity shall not account for the product's revenue more than once.

RT-CP-410a.3. Discussion of strategies to reduce the environmental impact of packaging throughout its lifecycle

1 The entity shall discuss its strategies to reduce the environmental impact of its packaging throughout the material's lifecycle, such as optimising packaging weight and volume for a given application or using alternative materials, including those that are recycled, recyclable, reusable, compostable or degradable.

2 Relevant disclosures may include discussion of the:

2.1 implementation of ISO 18602 *Packaging and the environment—Optimization of the packaging system*, which includes criteria on minimisation of packaging weight and optimisation of the amount needed for safety, hygiene and consumer acceptance of the packed product;

2.2 implementation of ISO 18604 *Packaging and the environment—Material recycling*, which includes criteria for recyclable packaging;

2.3 implementation of ISO 14855-1 *Determination of the ultimate aerobic biodegradability of plastic materials under controlled composting conditions—Method by analysis of evolved carbon dioxide*, ASTM D6400 *Standard Specification for Labeling of Plastics Designed to be Aerobically Composted in Municipal or Industrial Facilities* or ASTM D6868 *Standard Specification for Labeling of End Items that Incorporate Plastics and Polymers as Coatings or Additives with Paper and Other Substrates Designed to be Aerobically Composted in Municipal or Industrial Facilities*, which include criteria for packaging recoverable through biodegradation and composting;

2.4 implementation of ISO 14021 *Environmental labels and declarations—Self-declared environmental claims (Type II environmental labelling)*, which includes criteria for renewable and recycled material content claims; or

2.5 performance on The Consumer Goods Forum's *Global Protocol on Packaging Sustainability 2.0* metrics for Packaging Weight and Optimization or Assessment and Minimization of Substances Hazardous to the Environment.

3 The entity may discuss its use of Life Cycle Assessment (LCA) analysis to reduce environmental impacts and maximise product efficiency, including weight reduction and transportation efficiency.

3.1 Improvements to the environmental efficiency of packaging products may be discussed in terms of LCA functional unit service parameters (time, extent and quality of function).

Supply Chain Management

Topic Summary

Containers and packaging manufacturing uses large quantities of raw materials including wood fibre and aluminium. Sustainable production of these materials is an important supply chain consideration for entities in the industry because adverse environmental impacts could increase materials costs and affect the brand value of entities. To mitigate such risks, entities may implement supply chain vetting practices and implement third-party standards within internal operations and suppliers that certify that the materials were produced in a sustainable manner. Additionally, such actions may raise brand value and meet customer demand for sustainably produced packaging products, providing access to new markets and growth opportunities.

Metrics

RT-CP-430a.1. Total wood fibre procured; percentage from certified sources

1 The entity shall disclose the total weight (in metric tonnes) of wood-fibre-based raw materials procured during the reporting period.

1.1 The scope of raw materials includes all inputs processed to be sold as a finished good, including recycled raw materials, virgin raw materials and goods consumed directly in the production process.

2 The percentage shall be calculated as the total weight (in metric tonnes) of its wood-fibre-based raw materials certified to a responsible sourcing standard divided by the total weight (in metric tonnes) of wood-fibre-based raw materials, if responsible sourcing certifications include those promulgated by the following organisations (or an equivalent):

2.1 American Tree Farm System (ATFS)

2.2 Forest Stewardship Council (FSC) (FSC 100% label and FSC Mixed Sources and FSC Recycled labels)

2.3 Programme for the Endorsement of Forest Certification (PEFC) (PEFC Certified and PEFC Recycled labels)

2.4 Sustainable Forest Initiative (SFI) (SFI Chain of Custody and SFI Certified Sourcing labels)

3 The entity may disclose separately the percent of fibre that is certified to each relevant responsible sourcing standard (for example, FSC, SFI, PEFC and ATFS) and relevant standards (for example, FSC 100% label, FSC Mixed Sources and FSC Recycled labels, SFI Chain of Custody and SFI Certified Sourcing labels, and PEFC Certified and PEFC Recycled labels).

4 Wood fibre certified to more than one standard shall be accounted for by the entity only once.

RT-CP-430a.2. Total aluminium purchased; percentage from certified sources

1 The entity shall disclose the total weight (in metric tonnes) of aluminium-based raw materials purchased during the reporting period.

1.1 The scope of raw materials includes all inputs processed to be sold as a finished good, including recycled raw materials, virgin raw materials and goods that will be consumed directly in the production process.

2 The percentage shall be calculated as the total weight (in metric tonnes) of its aluminium based raw materials certified to a responsible sourcing standard divided by the total weight of aluminium based raw materials.

3 Responsible sourcing certification includes that promulgated by the Aluminium Stewardship Initiative (ASI) (Performance Standard Version 1 and Chain of Custody Standard Draught 2) or certification to an equivalent standard.

4 Aluminium certified to more than one standard shall be accounted for by the entity only once.

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