

Henkel GHG Reporting

Scope 3 Methodology

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1. Preamble

Scope 3 emissions for business at Henkel are calculated using methodologies consistent with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Scope 3 Standard) [1], and with reference to the additional guidance provided in the GHG Protocol Technical Guidance for Calculating Scope 3 Emissions (Scope 3 Guidance) [2].

This document describes the boundaries and the GHG scope 3 reporting categories relevant for the Henkel scope 3 reporting. It further outlines the methodology behind the relevant reporting categories.

2. Accounting & Reporting Principles

The Corporate Value Chain (Scope 3) Accounting and Reporting Standard requires that five principles be adhered to (see illustration 1 below). The Henkel methodology for accounting and reporting the scope 3 emissions follows these principles.

GHG accounting and reporting of a scope 3 inventory shall be based on the following principles: relevance, completeness, consistency, transparency, and accuracy.

GHG accounting and reporting of a scope 3 inventory shall be based on the following principles:

Relevance: Ensure the GHG inventory appropriately reflects the GHG emissions of the company and serves the decision-making needs of users – both internal and external to the company.

Completeness: Account for and report on all GHG emission sources and activities within the inventory boundary. Disclose and justify any specific exclusions.

Consistency: Use consistent methodologies to allow for meaningful performance tracking of emissions over time. Transparently document any changes to the data, inventory boundary, methods, or any other relevant factors in the time series.

Transparency: Address all relevant issues in a factual and coherent manner, based on a clear audit trail. Disclose any relevant assumptions and make appropriate references to the accounting and calculation methodologies and data sources used.

Accuracy: Ensure that the quantification of GHG emissions is systematically neither over nor under actual emissions, as far as can be judged, and that uncertainties are reduced as far as practicable. Achieve sufficient accuracy to enable users to make decisions with reasonable confidence as to the integrity of the reported information.

Illustration 1: Scope 3 Principles [1, p. 23].

2.1. Relevance

The various categories which are considered relevant for the Henkel’s present scope 3 GHG accounting and reporting have been provided in the section “4. Scope 3 - Setting the Boundaries for Henkel”. Additionally, the rationale for in/excluding individual categories are provided therein.

2.2. Completeness

Activity data: All sales, all purchased raw materials (chemicals, packaging), all logistic movements are considered. These are complemented with data on the upstream and downstream transport processes and the use and disposal processes of the Henkel products.

Footprint: All activity data are complemented with footprint data.

Additional information: Changes in company structure are taken into consideration (e.g. the Russia exit for the FY2023).

2.3. Consistency

Activity data: In alignment with the definition provided by the GHG Scope 3 Protocol, whenever there are data improvements for the data sets, these are subject to documented plausibility checks by the data providers.

Emissions data: To base the reporting on a consistent set of footprint data, up to date datasets are used where available to be consistent with the GHG Scope 3 Protocol where applicable.

2.4. Transparency

Transparency of accounting and reporting is warranted by subjecting all data and calculations to limited assurance verification by a third party and by publishing the results in the Henkel Sustainability Report. The Henkel Sustainability Report is publicly available online. Data and calculations have been shared with the third party review. To that end, spreadsheet calculations were made available to the auditor. These allow for tracing all steps of the calculation.

2.5. Accuracy

The activity data used for reporting can be classified as high, intermediate, and low accuracy. The approximated error in the data is less than 5%, between 5% and 10%, and between 10% and 30%.

High accuracy data are the amounts of chemicals purchased, the amounts of waste and wastewater generated in production, and the amounts of products sold. The respective data are taken from the Henkel systems. Approximations are used on an exceptional basis, e.g. when accounting for the activities not yet reflected in the Henkel systems

Intermediate accuracy data are activity data which result from combining SAP data with a certain degree of approximation. This is true e.g. for the upstream transportation and distribution.

Low accuracy data are activity data which require the combination of average / assumed values for energy and water consumption during of products and disposal modes with data on amounts of raw materials and products.

3. Boundaries of Henkel Scope 3 Greenhouse Gas Emission Reporting

3.1. Basis of consolidation

The scope 3 accounting and reporting covers all major activities both under and void of operational control of Henkel. Hence, emissions of acquisitions and divestments are accounted for based on activity data from the Henkel systems, supplier data and external partners (e.g. EcoTransIT World (ETW) for inbound logistic calculations).

3.2. Time boundaries

The Henkel scope 3 reporting procedure which entails the collection, calculation and reporting of the emissions is conducted on an annual basis, for a full reporting year. This includes that purchasing and sales data covering the full breadth of Henkel activities for the reporting year. This implies inclusion of actual emissions which may have already occurred earlier, such as purchased goods and services (chemicals and packaging materials), fuel- and energy-related activities not reported in scopes 1 & 2, employee commuting activities, business travel, upstream transport and distribution, or will occur in the future, such as waste generated in operations, downstream transportation and distribution, use and disposal of Henkel products.

3.3. Emissions coverage

The reporting addresses the emissions linked to the immediate activities related to production, distribution, and use of Henkel products. The exclusion of emissions in the pre-chains are dependent on the emission type and the factors used. An example can be seen in the case of the purchased raw materials in the reporting category 'Purchased Goods and Services'. For the raw materials (chemicals and packaging materials) life cycle data are used because this is the only type of data available. Emissions are expressed in CO₂ equivalents to enable comparability between the effects of different greenhouse gases which have different global warming potentials [3].

4. Scope 3 – Setting the Boundaries for Henkel

The scope 3 GHG categories are shown below. Henkel’s scope 3 emissions report reflects the relevant emissions along Henkel’s value chain.

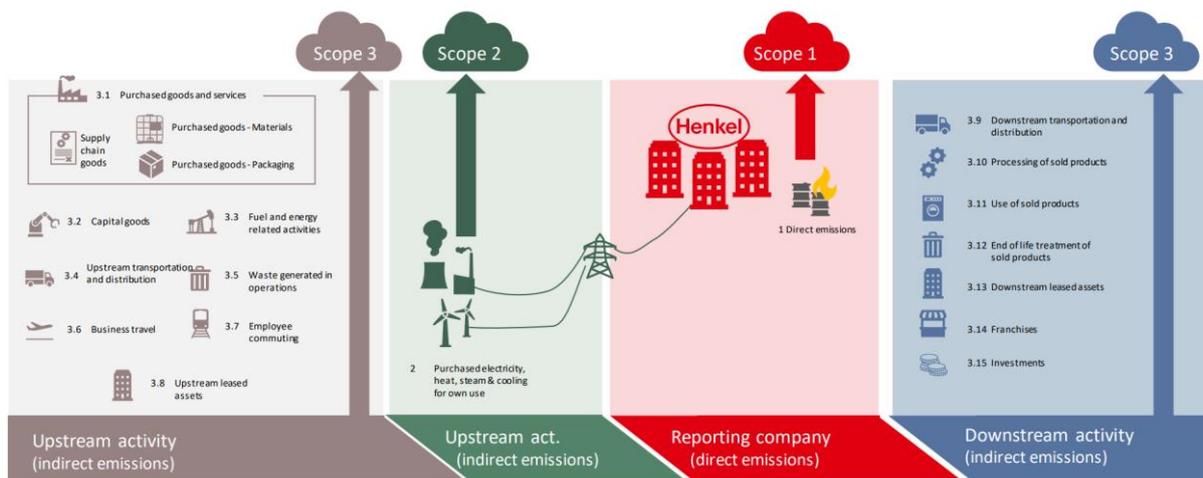


Illustration 2: Scope 3 categories.

Subject of the reporting are the materially relevant categories. The following table outlines the scope 3 categories according to their relevance for the Henkel footprint, along with a relevance statement. Relevance criteria for including / excluding activities from reporting are management of activities, direct emissions originating from the activities, and size of emissions. Activities are included if they are managed by Henkel and/or if sizeable emissions are generated through these activities.

Scope 3 Category	Scope In/Out	Relevance Statement (Qualitative materiality)
Upstream		
1. Purchased goods and services	In scope	Purchased raw materials such as chemicals and packaging materials are included in the reporting. It is known from life-cycle assessments that these are an important contributor to the overall emissions along the Henkel value chain. The excluded purchased services such as contract manufacturing, traded goods, services and technical supply are to be included.
2. Capital goods	Out of scope	In view of the current quality and availability of the emission factors for capital goods, the calculation of emissions is highly uncertain. For that reason, Henkel does not manage these emissions and currently abstains from reporting them.

3. Fuel and energy related activities	In scope	The emissions from our fuel and energy related activities originate from Henkel acting as operator of a multi company chemical site. All use-phase emissions related to company cars will be accounted within scopes 1&2. Pre-combustion/-usage emissions shall be accounted for within scope 3.3.
4. Upstream transportation and distribution	In scope	The emissions related to transportation of purchased goods to the production sites are included into the reporting. Considering that Henkel pays for outbound logistics, the downstream logistics emissions (3.9) are computed herein.
5. Waste generated in operations	In scope	The emissions related to the disposal of solid waste and wastewater generated in Henkel production sites are included into the reporting. Disposal of solid waste and wastewater generated in Henkel production sites is a managed element of the Henkel business activities.
6. Business travel	In scope	The emissions related to business travel (air and rail) are included into the reporting. Business travel is an integral part of Henkel's business activities. Excluded are bus travel, rental cars, taxis, hotel stays and business travel in employee-owned vehicles.
7. Employee commuting	In scope	The emissions related to employee commuting between home and work are included into the reporting. They can result from the use of cars, buses, bicycles, subways, trams, motorbikes and other types of transport (e.g. taxis). This category also includes emissions from remote working.
8. Upstream leased assets	Out of scope	The relevance is not evaluable at this moment due to unavailability of activity data.
Downstream		
9. Downstream transportation and distribution	Out of scope	Reported as part of scope 3.4.
10. Processing of sold products	Out of scope	Considering that Henkel's products don't undergo further processing and are as such used by the end-user as they are (e.g. Adhesive usage as "auxiliary

		material” in vehicle, building or packaging, there are no emissions to report for this category).
11.Use of sold products	In scope	<p>The emissions related to the use of sold products indirectly consume energy or water as follows:</p> <ul style="list-style-type: none"> ▪ The detergents and soaps (laundry products) used energy to heat water – domestic heating from different sources – as well as water. ▪ Beauty products, such as soaps, require heated water – domestic heating from different sources – and water. ▪ A range of the products of Adhesives Technologies requires energy for drying, melting, and curing of adhesives or for operating industrial cleaning and surface treatment processes. <p>For the sake of simplicity and consistency, the use of Henkel products by industrial and professional customers is addressed in this category.</p>
12.End-of-life treatment of sold products	In scope	The emissions from the end-of-life are included in the reporting. These include emissions related to treatments (landfill, combustion, and wastewater treatment plant) of packaging materials purchased by Henkel in the reporting year. It is also included the solid waste and the wastewater generated in the ‘use of sold products’.
13.Downstream leased assets	Out of scope	Not relevant according to the norm of active management, direct emissions, and size of emissions.
14.Franchises	Out of scope	Not relevant according to the norm of active management, direct emissions, and size of emissions.
15.Investments	Out of scope	Not relevant according to the norm of active management, direct emissions, and size of emissions.

Table 2: Overview of relevance statement for Henkel's scope 3 reporting.

5. Scope 3 – Methodology

5.1. Quantification Method

The scope 3 emissions are quantified by calculation following the equation in the GHG protocol standard. The application of this equation for the specific categories is outlined below.

Quantification of GHG emissions by multiplying activity data by an emission factor
GHG = Activity Data x Emission Factor x GWP

Illustration 3: Quantification method [1, p. 68].

Category	Methodology
1.Purchased goods and services	Supplier data specific method and average-data method (specific data)
	Spend-based method (non-specific data)
3.Fuel- and energy-related activities	Average-data method
4.Transportation and distribution	Upstream: Distance-based method
	Downstream: Energy-based bottom-up approach (ETW)
5.Waste generated in operations	Average-data method
6.Business travel	Distance-based method
7.Employee commuting	Average-data method
11.Use of sold products	Indirect use-phase emissions method
	Direct use-phase emissions method
12.End-of-life treatment of sold products	Waste-type-specific method (solid waste)
	Average-data method (wastewater)

Table 3: Summary of emissions calculation methodology per category in Henkel's scope 3 reporting.

5.2. Activity Data

The table below provides an overview of the activity data used per category.

Category	Activity Data
1.Purchased goods and services - Chemicals	Purchasing data (quantities and total spend)
	Supplier Data (PCF)
1.Purchased goods and services - Packaging	Acquisition data
	Packaging data
	Purchasing data
3.Fuel- and energy-related activities	Energy & electricity consumption (Well-to-tank emissions only)
4.9. Transportation and distribution	Upstream: Amount of chemical raw materials, packaging materials
	Upstream: Assumption on transportation distances and mode
	Downstream: Delivery notes from SAP (postal code sending and receiving locations, amount shipped, transportation mode)

5.Waste generated in operations	Amount and type of waste generated at the Henkel sites
6.Business travel	Travelled kilometers according to the travel bookings, specified per travel mode (air, rail)
7.Employee commuting	Employee data
11.Use of sold products	Sales data (amount of sales product)
	Resource consumption (energy and water) per unit use
12.End-of-life treatment of sold products	Amount of sold products chemical raw materials, packaging materials, assumed disposal methods
	Water consumption (energy and water) per unit use

Table 4: Summary of activity data description and source per category in Henkel's scope 3 reporting.

5.3. Emission Factors

The Table below provides an overview of the emission factors used per category.

Category	Emission factors	Source
1.Purchased goods and services – Chemicals	Cradle-to-gate emission factors for purchased chemicals	Supplier data, Ecoinvent - Accessed via BigFoot
1.Purchased goods and services – Packaging	Emission factors for materials and for their processing into a packaging type.	Ecoinvent, supplier data and associations public data - Accessed via BigFoot
3.Fuel- and energy-related activities	Emission factor for energy and electricity transportation and distribution	BEIS - DEFRA (direct energy/Fuel) IEA Factor (Electricity only)
4.9.Transportation and distribution	Upstream: Emission factor for the type of transport	Weighted average of emission factor for mode of transport extrapolated from downstream transport and distribution.
	Downstream: Emission factor for the type of transport	Emission factors from ETW
5.Waste generated in operations	Emission factors for waste type-specific and waste treatment-specific.	BEIS (DEFRA) - current reporting year
	Emission factor for average wastewater treatment.	Estimated based on literature data
6.Business travel	Emission factors for rail, and air.	BEIS (DEFRA) - current reporting year
7.Employee commuting	Emission factors related to commuting	BEIS (DEFRA) - current reporting year
11.Use of sold products	Beauty and Laundry: Emission factors for energy mix for heating water (excl. electricity)	BEIS (DEFRA) - current reporting year
	CO ₂ , methane, and nitrous oxide emissions for electricity for world or countries	IEA Factor
	Beauty and Laundry: CO ₂ emission factors for water supply	Ecoinvent
12.End-of-life treatment of sold products	Packaging and solid waste from Adhesive products: Emission factors for landfilling and for waste incineration	BEIS (DEFRA) - current reporting year

	Wastewater	Calculated based on literature data, accounting for COD contribution of Henkel products.
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Table 5: Summary of emission factors and source per category in Henkel's scope 3 reporting.

6. References

- [1] „Corporate Value Chain,“ [Online]. Available: https://ghgprotocol.org/sites/default/files/standards/Corporate-Value-Chain-Accounting-Reporting-Standard_041613_2.pdf.
- [2] „Scope 3 Guidance,“ [Online]. Available: https://ghgprotocol.org/sites/default/files/standards/Scope3_Calculation_Guidance_0.pdf.
- [3] „Intergovernmental Panel on Climate Change (IPCC) Introduction,“ [Online]. Available: <https://www.ipcc.ch/site/assets/uploads/2018/02/ar4-wg3-chapter1-1.pdf>.