

2024 environmental data – methodologies and supplementary data

Reporting approach

Standards

Scope 3 emissions are calculated in line with

- GHG Protocol Corporate Value Chain (Scope 3) Accounting (2011)
- GHG Protocol Technical Guidance for Calculating Scope 3 Emissions (version 1.0)
- WBCSD Guidance for Accounting and Reporting Corporate GHG Emissions in the Chemical Sector Value Chain (2013).
- IPCC assessment report AR6
- ISO14064-1

We follow the best practice reporting principles of relevance, completeness, consistency, transparency, accuracy.

GHG included

The carbon footprint is measured in the standard unit of carbon dioxide equivalent (CO₂e). This comprises (as applicable to the activity carried out) the seven greenhouse gas emissions as outlined by the Kyoto Protocol: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), nitrogen trifluoride (NF₃).

Boundaries

The Scope 3 inventory is aligned with our financial reporting year of 1 Jan 2024 – 31 Dec 2024. We use an equity share approach, in line with ISO14064-1, to include our joint venture Alembic under category 15. For all other categories, the equity share boundary is the same as our operational control boundary.

Emissions covered by these methodologies

Scope 3 category	Applicable ?	In scope ?	2024 emission (t CO ₂ e)	Scope 3 share (%)
<i>Upstream emissions</i>			522,878	88
3.1 Purchased goods and services	Yes	Yes	338,743	57
3.2 Capital goods	Yes	Yes	21,231	4
3.3 Fuel and energy-related activities	Yes	Yes	21,051	4
3.4 Upstream transportation and distribution	Yes	Yes	131,141	22
3.5 Waste generated in operations	Yes	Yes	5,981	1
3.6 Business travel	Yes	Yes	2,789	0
3.7 Employee commuting	Yes	Yes	1,050	0
3.8 Upstream leased assets	Yes	Yes	892	0
<i>Downstream emissions</i>			76,356	12
3.9 Downstream transportation and distribution	Yes	Yes	6,620	1
3.10 Processing of sold products	Yes	Yes	37,436	6
3.11 Use of sold products	No	No	N/A	N/A
3.12 End of life treatment of sold products	Yes	Yes	31,949	5
3.13 Downstream leased assets	Yes	Yes	254	0
3.14 Franchises	No	No	N/A	N/A
3.15 Investments	Yes	Yes	96	0
Total Scope 3			599,233	

Reporting methodologies by category

Overall, we take a hybrid approach to our Scope 3 inventory. We prioritise process-based methods which use physical data. In the absence of such data, we make reasonable assumptions, or use an environmentally extended input-output model based on spend data.

Purchased goods and services

Boundary: Cradle to gate emissions generated throughout our supply chains. Includes goods not for resale, such as professional services.

Exclusions: None

Method: Purchased raw materials and packaging use purchased tonnes multiplied by a suitable Ecoinvent emission factor. Water supplies use UK Defra emission factors globally. Other purchased goods and services use spend data, mapped onto EEIO sectors and multiplied by the location-specific EEIO emission factor.

Assumptions: Where relevant, location is set as the location of purchase when choosing emission factors.

Capital goods

Boundary: All capital expenditure for new plant and equipment, maintenance, property and IT

Exclusions: Capitalised overburden from mines

Method: CAPEX data is mapped onto EEIO sectors and multiplied by the location-specific EEIO emission factor.

Assumptions: Where relevant, location is set as the location of purchase when choosing emission factors.

Fuel and energy-related activities

Boundary: All energy consumption in our operations – aligns with the data used to calculate our Scope 1 and 2 emissions.

Exclusions: None

Method: All our fuel and energy consumption in our sites (kWh) and company cars (km) are multiplied by suitable UK Defra WTT and T&D: Transmission and distribution well-to-tank (WTT) emissions of purchased electricity and steam. Transmission and distribution (T&D) losses for electricity and steam. WTT emissions of purchased fuels.

Assumptions: None

Upstream transportation and distribution

Boundary: All inbound raw material transportation. Intersite transportation of finished or in-process materials. Outbound transportation of products that is paid for by Elementis. Transport modes road, rail, sea and air.

Exclusions: Inbound transportation of goods not for resale (eg capital equipment, office supplies)

Method: Elementis paid transport was based on incoterms of the shipment. UK Defra factors (including WTT) were applied based on the tonnage, distance and mode of transport.

Assumptions: For outbound, intersite and selected raw materials covering about 15% of inbound mass, distances were calculated using sea-distances.org for sea routes; google.com/maps for rail and approx 80% of the mass transported by road; Haversine formula for air and remaining road journeys. For the remaining inbound raw material mass, distances and mode of transport were estimated, with 19% of the mass moving globally, and 81% of the mass moving within a region. For journey legs to and from a rail, sea or air port, we assumed road transport and the main port in the region. For factor choice between vehicles, we used container ship (average); freight train; HGV (all diesel) average laden; non-UK international air freight.

Waste generated in operations

Boundary: All waste generated in our operations.

Exclusions: None

Method: Mass of waste generated by disposal method is multiplied by a suitable Defra waste treatment emission factor. Wastewater volume discharged for off-site treatment is multiplied by a suitable Defra water treatment emission factor.

Assumptions: For emission factor choice, we assume all waste sent to landfill is industrial / inorganic; all incinerated waste is carbonaceous (using mixed food and garden waste factor); reused waste is construction waste. recycled waste is mixed metal card, wood, plastic.

Business travel

Boundary: Employee business travel in all modes.

Exclusions: None

Method: Our travel booking software automatically calculates journey tank-to-wheel emissions. WTT emissions were added manually using Defra factors. For travel that is not captured in the booking software, we used spend to select and location-based EEIO factor.

Assumptions: Booking software description for car type had to be mapped to DEFRA car type categories.

Employee commuting

Boundary: Employee commuting to an Elementis location.

Exclusions: None

Method: Number of employees at a location multiplied by commuting days per year (allowing for annual leave and holidays), multiplied by distance travelled by mode and Defra emission factor (including WTT).

Assumptions: All employees at production sites commute 5 days a week, while corporate office employees work 1 day a week in the office. Distance per mode is assumed based on numbeo.com commuting trends per country.

Upstream leased assets

Boundary: Building leases where we do not have operational control.

Exclusions: None

Method: Floor area, building type and energy source are used to apply CIBSE benchmarks for annual power consumption. This is then multiplied by suitable IEA and Defra emission factors.

Assumptions: Typical CIBSE benchmarks are suitable to use.

Downstream transportation and distribution

Boundary: Outbound transportation of products that is not paid for by Elementis. Transport modes road, rail, sea and air.

Exclusions: None

Method: Transport Elementis did not pay for was based on incoterms of the shipment. UK Defra factors (including WTT) were applied based on the tonnage, distance and mode of transport.

Assumptions: Distances were calculated using sea-distances.org for sea routes; google.com/maps for rail and approx 80% of the mass transported by road; Haversine formula for air and remaining road journeys. For journey legs to and from a rail, sea or air port, we assumed road transport and the main port in the region. For factor choice between vehicles, we used container ship (average); freight train; HGV (all diesel) average laden; non-UK international air freight.

Processing of sold products

Boundary: Emissions from customers processing Elementis' sold products

Exclusions: None

Method: Our sold products were grouped into different applications. We selected an appropriate emission factor for the customer product from Ecoinvent, and multiplied the mass % that Elementis product takes in the final product, multiplied by the total mass of that product we sold.

Assumptions: We estimated a mass % of Elementis product contained in the customer finished product, and used the maximum amount we thought likely. We estimated the typical customer processing method to help us select a suitable emission factor.

Use of sold products

Assessed as not applicable because all products have at least one of the following characteristics: do not consume energy during use; do not emit GHG during use; any GHG emissions stimulated are indirect (so out of scope).

End of life treatment of sold products

Boundary: End of life treatment of Elementis products and packaging - the other components of the full final product made by our customers are out of scope.

Exclusions: None

Method: Defra waste treatment factors were applied to mass of product sold for that disposal route. The application we sold the product for use in, and the packaging type used, was taken into account when choosing the disposal route.

Assumptions: Many of our personal Care products are washed away or otherwise adsorbed into the body/environment and so do not have a specific waste disposal route. Products that do not degrade within 100 years (e.g. plastics) are assumed to not emit GHG as per WBCSD chemical sector guidance, unless we know otherwise.

Upstream leased assets

Boundary: Building we lease to other entities.

Exclusions: None

Method: Floor area, building type and energy source are used to apply CIBSE benchmarks for annual power consumption. This is then multiplied by suitable IEA and Defra emission factors.

Assumptions: Typical CIBSE benchmarks are suitable to use.

Franchises

Assessed as not applicable because we do not operate a franchise business model.

Investments

Boundary: Energy use at our joint venture, Alembic

Exclusions: None

Method: Floor area, building type and energy source are used to apply CIBSE benchmarks for annual power consumption. This is then multiplied by suitable Defra emission factors and our ownership share (25%).

Assumptions: Typical CIBSE benchmarks are suitable to use.