Danone Belux – Actimel Product Emissions Report

November 2023

Contents

Contents

1. Summary

1.1. Introduction

This report presents the results from the carbon footprint study of the following Actimel SKUs sold in Belgium and Luxembourg:

- ACTIMEL NATU 3x(8x100g) - 127263
- ACTIMEL NATU 4x(12x100g) - 149109
- ACTIMEL NATU 2x(12x100g) - 21385
- ACTIMEL MULTI 3x(8x100g) - 127194
- ACTIMEL MULTI 4x(12x100g) - 127255
- ACTIMEL STRA 4x(12x100g) - 127258
- ACTIMEL STRA 3x(8x100g) - 127265
- ACTIMEL STRA 3x(14x100g) - 133196
- ACTIMEL STRA 2x(12x100g) - 21386
- ACTIMEL POM/BLU/VIT C 3x(8x100g) - 179030
- ACTIMEL KIDS STRA/BAN 3x(6x100g) - 178745
- ACTIMEL 0% NATU 3x(8x100g) - 133192
- ACTIMEL 0% NATU 4x(12x100g) - 133193
- ACTIMEL 0% STRA 3x(8x100g) - 133194

The carbon footprints were calculated for both 2020 and 2022.

This report conforms to the requirements for public disclosure of the life cycle GHG emissions of products laid out in the "Code of Good Practice for product GHG emissions and reductions". It aims to provide the basis to allow consistent information for product GHG emissions and reduction, assessed in conformity with the GHG Protocol Product Life Cycle Accounting and Reporting Standard / PAS 2050 Specification / ISO 14067 Standard. The Product Emissions Report should be made available in the public domain.

1.2. Background Information

Table 1: Danone Belux Product Carbon Footprints - Background Information

Category	Description
Company name	Danone Belux
Company contact information	1 Quai des Usines/Werkhuizenkaai 160, 1000 Brussels – Belgium
Product names	• ACTIMEL NATU 3x(8x100g) - 127263 • ACTIMEL NATU 4x(12x100g) - 149109 • ACTIMEL NATU 2x(12x100g) - 21385 • ACTIMEL MULTI 3x(8x100g) - 127194 • ACTIMEL MULTI 4x(12x100g) - 127255 • ACTIMEL STRA 4x(12x100g) - 127258 • ACTIMEL STRA 3x(8x100g) - 127265 • ACTIMEL STRA 3x(14x100g) - 133196 • ACTIMEL STRA 2x(12x100g) - 21386 • ACTIMEL POM/BLU/VIT C 3x(8x100g) - 179030 • ACTIMEL KIDS STRA/BAN 3x(6x100g) - 178745 • ACTIMEL 0% NATU 3x(8x100g) - 133192 • ACTIMEL 0% NATU 4x(12x100g) - 133193 • ACTIMEL 0% STRA 3x(8x100g) - 133194
Boundary	Cradle-to-grave
Standards, specifications and/or other documents against which the company has been assessed for conformity	GHG Protocol Product Life Cycle Accounting and Reporting Standard / PAS 2050 Specification / ISO 14067 Standard Carbon Trust Product Carbon Footprint - Requirements for Certification
Name of the independent, third-party verifier	Carbon Trust Assurance Ltd

Level of assurance achieved	Reasonable
Date of certification	Expected October 2023
Functional unit	Per serving size (ml) (g CO2e /100gl)
Data period	01/01/2020 to 31/12/2020 and 01/01/2022 to 31/12/2022
Product category rules (PCR)	Product Environmental Footprint Category Rules for Dairy Products - February 2020

1.3. Results

The overall emissions are reported in Table 2 below.

Table 2.a: Actimel Stock Keeping Units (SKUs) sold in Belgium

Region	SKUs	2020 GHG footprint (gCO2e/100g)	2022 GHG footprint (gCO2e/100g)
BELGIUM	127263 - ACTIMEL NATU 3x(8x100g)	128.10	119.31
BELGIUM	149109 - ACTIMEL NATU 4x(12x100g)	128.08	119.29
BELGIUM	21385 - ACTIMEL NATU 2x(12x100g)	128.08	119.29
BELGIUM	127194 - ACTIMEL MULTI 3x(8x100g)	126.32	117.96
BELGIUM	127255 - ACTIMEL MULTI 4x(12x100g)	126.26	117.94
BELGIUM	127258 - ACTIMEL STRA 4x(12x100g)	126.28	117.94
BELGIUM	127265 - ACTIMEL STRA 3x(8x100g)	126.30	117.99
BELGIUM	133196 - ACTIMEL STRA 3x(14x100g)	128.45	120.10
BELGIUM	21386 - ACTIMEL STRA 2x(12x100g)	126.28	117.94
BELGIUM	179030 - ACTIMEL POM/BLU/VIT C 3x(8x100g)	126.06	115.88
BELGIUM	178745 - ACTIMEL KIDS STRA/BAN 3x(6x100g)	127.33	122.07
BELGIUM	133192 - ACTIMEL 0% NATU 3x(8x100g)	100.99	93.35
BELGIUM	133193 - ACTIMEL 0% NATU 4x(12x100g)	101.85	94.20
BELGIUM	133194 - ACTIMEL 0% STRA 3x(8x100g)	99.81	92.50

Region	SKUs	2020 GHG footprint rounded (gCO2e/100g)	2022 GHG footprint rounded (gCO2e/100g)
BELGIUM	127263 - ACTIMEL NATU 3x(8x100g)	130	120
BELGIUM	149109 - ACTIMEL NATU 4x(12x100g)	130	120
BELGIUM	21385 - ACTIMEL NATU 2x(12x100g)	130	120
BELGIUM	127194 - ACTIMEL MULTI 3x(8x100g)	130	120
BELGIUM	127255 - ACTIMEL MULTI 4x(12x100g)	130	120
BELGIUM	127258 - ACTIMEL STRA 4x(12x100g)	130	120
BELGIUM	127265 - ACTIMEL STRA 3x(8x100g)	130	120
BELGIUM	133196 - ACTIMEL STRA 3x(14x100g)	130	120
BELGIUM	21386 - ACTIMEL STRA 2x(12x100g)	130	120
BELGIUM	179030 - ACTIMEL POM/BLU/VIT C 3x(8x100g)	130	120
BELGIUM	178745 - ACTIMEL KIDS STRA/BAN 3x(6x100g)	130	120
BELGIUM	133192 - ACTIMEL 0% NATU 3x(8x100g)	100	95
BELGIUM	133193 - ACTIMEL 0% NATU 4x(12x100g)	100	95
BELGIUM	133194 - ACTIMEL 0% STRA 3x(8x100g)	100	95

Table 2.b: Actimel Stock Keeping Units (SKUs) sold in Luxembourg

Region	SKUs	2020 GHG footprint (gCO2e/100g)	2022 GHG footprint (gCO2e/100g)
LUXEMBURG	127263 - ACTIMEL NATU 3x(8x100g)	129.56	120.77
LUXEMBURG	149109 - ACTIMEL NATU 4x(12x100g)	129.54	120.75
LUXEMBURG	21385 - ACTIMEL NATU 2x(12x100g)	129.54	120.75
LUXEMBURG	127194 - ACTIMEL MULTI 3x(8x100g)	127.78	119.42
LUXEMBURG	127255 - ACTIMEL MULTI 4x(12x100g)	127.72	119.37
LUXEMBURG	127258 - ACTIMEL STRA 4x(12x100g)	127.74	119.39
LUXEMBURG	127265 - ACTIMEL STRA 3x(8x100g)	127.77	122.84
LUXEMBURG	133196 - ACTIMEL STRA 3x(14x100g)	129.95	121.58
LUXEMBURG	21386 - ACTIMEL STRA 2x(12x100g)	127.74	119.39
LUXEMBURG	179030 - ACTIMEL POM/BLU/VIT C 3x(8x100g)	127.52	117.34
LUXEMBURG	178745 - ACTIMEL KIDS STRA/BAN 3x(6x100g)	128.79	122.45
LUXEMBURG	133192 - ACTIMEL 0% NATU 3x(8x100g)	102.44	94.80
LUXEMBURG	133193 - ACTIMEL 0% NATU 4x(12x100g)	103.31	95.66
LUXEMBURG	133194 - ACTIMEL 0% STRA 3x(8x100g)	101.25	93.95

Region	SKUs	2020 GHG footprint rounded (gCO2e/100g)	2022 GHG footprint rounded (gCO2e/100g)
LUXEMBURG	127263 - ACTIMEL NATU 3x(8x100g)	130	120
LUXEMBURG	149109 - ACTIMEL NATU 4x(12x100g)	130	120
LUXEMBURG	21385 - ACTIMEL NATU 2x(12x100g)	130	120
LUXEMBURG	127194 - ACTIMEL MULTI 3x(8x100g)	130	120
LUXEMBURG	127255 - ACTIMEL MULTI 4x(12x100g)	130	120
LUXEMBURG	127258 - ACTIMEL STRA 4x(12x100g)	130	120
LUXEMBURG	127265 - ACTIMEL STRA 3x(8x100g)	130	120
LUXEMBURG	133196 - ACTIMEL STRA 3x(14x100g)	130	120
LUXEMBURG	21386 - ACTIMEL STRA 2x(12x100g)	130	120
LUXEMBURG	179030 - ACTIMEL POM/BLU/VIT C 3x(8x100g)	130	120
LUXEMBURG	178745 - ACTIMEL KIDS STRA/BAN 3x(6x100g)	130	120
LUXEMBURG	133192 - ACTIMEL 0% NATU 3x(8x100g)	100	95
LUXEMBURG	133193 - ACTIMEL 0% NATU 4x(12x100g)	100	95
LUXEMBURG	133194 - ACTIMEL 0% STRA 3x(8x100g)	100	95

1.4. Environmental Improvements

Several projects have been put in place between 2020 and 2022 both in the factory and related to raw material (milk) to reduce the green-house gas footprint of Actimel bottles produced in Rotselaar

In the factory:

- Steam reduction projects:
  - Connect Pasto410 to hot water tank (steam reduction)
  - Rerouting ice water for steam reduction

- LED relighting (replace all lightening)
- Implementation of solar panels
- Reduction of general waste

Raw material collection (milk):

- Several initiatives have been implemented to reduce the emission factor for fresh milk:
- Sourcing traced soy has reduce the emission factor for soy feed
- Increased use of alternative crops/ingredients replacing soy for feed
- Introduction of electric vehicles for transportation
- Introduction of the feed additive Bovear, which reduces methane emissions (currently active in 10% of farms)

1.5. Data

Data sources used for the study include a mix of primary and secondary sourced data. Where possible, primary data were sourced. Secondary data were sourced where primary data were not available or where the relative impact on the carbon footprint result was nominal.
Overall data quality has been estimated as good based on a key developed internally at Carbon Trust – see 2.5.2 Data quality section for more information.

1.6. Key Assumptions

- All the footprints have been calculated using the same version of DanPrint 2.2 to account for changes in methodology of calculation between 2020 and 2022.
- The recipes and ratios used are specific for each flavour.
- The same data are used for 149109 - ACTIMEL NATU 4x(12x100g) and 21385 - ACTIMEL NATU 2x(12x100g)
- The same data are used for 127258 - ACTIMEL STRA 4x(12x100g) and 21386 - ACTIMEL STRA 2x(12x100g)
- The reduction of the pack size from 8 (in 2020) to 6 bottles (in 2022) for the ACTIMEL KIDS STRA/BAN 3x(6x100g) – 178745 had been acknowledged and neutralized by the fact that the calculations are made at consumption unit level.
- The recipe of the Actimel Pomegrade has evolved between 2020 and 2022. The respective recipes have been used to calculate 2020 and 2022 footprint – this evolution has a negligeable effect on the footprint.
- The ingredients and components used for each SKU are extracted from SAP specifically for each SKU.
- All the products are made in the Rotselaar factory. The fresh milk used by this factory is sourced from approximatively 80 farms located in an average of 75kms around Rotselaar factory. 99%+ of those farms are evaluated each year to measure individually their emissions using the Cool Farm Tool. Thus, Danone was able to provide emission factors (kg CO2eq/litre of milk) for each farm, computed into one emission factor with a weighted average allocation rule based on the kg of milk collected at each farms.
- All packaging information (weight, material type, etc) is based on the internal database for packaging and palletization information.
- In general, pallets are reused 15-25 times. We have taken 10 times as a conservative assumption, although the influence of this parameter is negligeable.
- Electricity, natural gas and processed water could not be allocated at a sub-metered level. This data was available at a site level with total produced units specified in tonnes. The total consumption of these utilities

was therefore apportioned equally across the product range with no assumptions made that one product SKU was more or less energy/water-intensive than the other.

- Waste type and quantity (in ton of waste per ten of product) for products, packaging and other factory and supply chain waste is automatically imported in DanPrint tool, depending on the plant and country of the product analysed. This is taken from Danone's organizational annual reports.
- Supplier specific data, such as raw material location is extracted from SAP. The distance to location is determined using google maps. In case of dual/multiple sourcing, longest distance to the factory is considered.
- The transportation from Factory DC to shops is averaged based on information provided by the Supply Chain. The transport of our products is performed in roundtrip. However, the average distance is calculated for every stop separately in order to facilitate the calculations. Every stop is considered as one trip and an empty return rate is considered in the emissions factor of road transport. There is no "weighted average" allocation of the transportation emissions to the Actimel bottles if several items are transported in the same trip.
- SKUs are similar in Life Cycle stage, but there is a difference on result based on raw materials. Difference PB and Dairy is mainly linked to the difference in recipe The full impact of transport is allocated to the Actimel product. Thus a conservative estimation is made for the transport.
- Average lifespan of the product is assumed to be 17 days, with 7 days stored in distribution centers, 3 days at the supermarket and 7 days at the consumers' home.
- For supermarket chilling, it is assumed that the emission information is automatically imported from Danone company organizational reporting.
- For the End of Life's stage, only the packaging is included in the calculations, as this is the only part of the end-of-life stage that Danone has influence over, through product design and material choice. The modelling of the use and end-of-life profile was carried out in accordance with the harmonized methodology for calculating the environmental footprint of products developed by the European Commission (Circular Footprint Formula).
- Food waste at a retailer and consumer level is considered to be outside of Danone's control and has been excluded from the footprint.

1.7. Disclaimer on uncertainty

The emissions figures provided in this report have been calculated in accordance with the requirements of GHG Protocol Product Life Cycle Accounting and Reporting Standard / PAS 2050 specification / ISO 14067 standard, using the primary and secondary sources of data specified above. Based on GHG Protocol Product Life Cycle Accounting and Reporting Standard / PAS 2050 specification / ISO 14067 standard method of assessment, we believe that our assessment has identified 95% of the likely GHG emissions associated with the full life cycle of the products covered in this report. However, readers should be aware that even primary sources of data are subject to variation over time, and the figures given in this report should be considered as our best estimates, based on reasonable cost of evaluation.

2. Main Report

2.1. Goal of the study

Table 3: Goal of the Study

Category	Description
Intended applications of study	B2B and B2C
Environmental footprint impact category	Climate change
Methodological or environmental footprint impact category limitations	N/A
Reasons for carrying out the study	Support the environmental communication of reduction of CO2 footprint of Actimel products.
Target audience	General public
Reference PEFCRs	Product Environmental Footprint Category Rules for Dairy Products - February 2020
Commissioner of the study	Danone Belux

2.2. Scope

The project scope involves calculating the carbon footprints of the below Actimel SKUS in 2020 and 2022 sold in Belgium and Luxembourg.

- ACTIMEL NATU 3x(8x100g) - 127263
- ACTIMEL NATU 4x(12x100g) - 149109
- ACTIMEL NATU 2x(12x100g) - 21385
- ACTIMEL MULTI 3x(8x100g) - 127194
- ACTIMEL MULTI 4x(12x100g) - 127255
- ACTIMEL STRA 4x(12x100g) - 127258
- ACTIMEL STRA 3x(8x100g) - 127265
- ACTIMEL STRA 3x(14x100g) - 133196
- ACTIMEL STRA 2x(12x100g) - 21386
- ACTIMEL POM/BLU/VIT C 3x(8x100g) - 179030
- ACTIMEL KIDS STRA/BAN 3x(6x100g) - 178745
- ACTIMEL 0% NATU 3x(8x100g) - 133192
- ACTIMEL 0% NATU 4x(12x100g) - 133193
- ACTIMEL 0% STRA 3x(8x100g) – 133194

2.3. Boundaries

2.3.1. Raw materials

Raw milk supply of the products is included in the scope of certification. It includes:

- Feed production in farms & purchased.
- Milk production in farms.
- Milk collection, with trucks that collect milk from the farms to transport it to the production plant.
- Land Use change in conformity with the Cool Farm Tool Methodology.

Exclusion of the following emissions coming from:

- Refrigerants at the dairy farms
- Cleaning products at the dairy farms
- Cattle insemination and administration of medicine or antibiotics
- Capital goods and infrastructure (i.e. manufacture and maintenance of buildings and machinery), which are considered to be negligible and considered to be non-attributable to the product

2.3.2. Packaging

Raw materials production (bottle, aluminium, bottle label, envelope, glue, tertiary packaging) and packaging manufacturing are considered.
No emissions linked to the transport of the bottles to the factory as the bottle is manufactured on-site.

2.3.3. Manufacturing

Products and ingredients processing:

- Reception of milk, cream, concentrated milk, milk powder or plant-based alternatives at the plant where they are stored and refrigerated.
- The products are mixed, pasteurised, fermented and cooled.
- Container filling, packing and transport:
- The products are filled, packed and sent in refrigerated trucks to markets.
- They also can be tested and end as wastes.
- Production of non-dairy ingredients (water, vitamins, fruit sludge, sugar syrup, starch, culture, sweetener, oat syrup, pea protein, almond paste, agents, lactase)
- Packaging and transport

The following processes are not included in the boundary of this life cycle stage.

- Capital goods and infrastructure (i.e. manufacture and maintenance of buildings and machinery), which are considered to be non-attributable to the product;
- Corporate activities and services (research and development, administrative functions, sales and marketing), which are considered to be non-attributable to the product;
- Personnel activities (i.e. commuting to and from work);
- Solid waste at the dairy unit
- Transportation of input products to the dairy unit accounting for less than 1% in mass
- Yeast and bacteria production
- Rennet production
- Lactic ferments production.

Such emissions have been excluded because they are non-significant, and data was not available.

2.3.4. Waste in operations

Waste in operations cover both food and packaging lost throughout the manufacturing process within Danone operations in factories and downstream distribution (including customers returns) when Danone is responsible for waste disposal.
The related emissions depend on the nature of waste and its fate, e.g. landfill, incineration without energy recovery, drained and sent to sewer, animal feeding, biochemical processing, methanisation, composting, landfarming, incineration waste to energy, recycling. The emissions of raw material are already included in the section dedicated to emissions of purchased goods and are therefore not taken again into account here.

2.3.5. Transport

The following processes are included in the boundary of this life cycle stage:
Distribution of the packed products from the plant to the customer including:

- Transport to point of sale
- Transport to final user

The following processes are not included in the boundary of this life cycle stage.

- Capital goods at distribution centers and at retail (i.e. manufacture and maintenance of buildings and machinery), which are considered to be non-attributable to the product
- Personnel activities (i.e. commuting to and from work).
- Transport from factory to warehouse or distribution centers is excluded as finished products are stored at the factory premises and directly sent from there to the point of sales.

Such emissions have been excluded because they are non-significant, and data was not available.

2.3.6. Storage and use

The following processes are included in the boundary of this life cycle stage:

- Refrigerated storage in Rotselaar DC
- Refrigerated storage in retail DC
- Refrigerated storage in retail store.

This stage does not include:

- Transport of consumers up to selling point given that such distance data isn't relevant at the product's scale. Consumers' routes vary a lot for reasons independent from the single product itself, as well as the type of transportation used to get to the store for example.
- Impacts related to customers' consumption habits whose occurrence is independent from the product itself have also been excluded. Cutlery for dairy products consumption and ambient storage at the consumer home are excluded from this scope.

2.3.7. End of life

At end of life, primary, secondary, and tertiary waste packaging can be recycled, incinerated for energy recovery, incinerated without energy recovery or landfilled. The following processes are included in the boundary of this life cycle stage:

- Transportation of waste packaging to a waste management facility;
- Waste packaging treatment and processing via recycling, incineration with energy recovery or incineration without energy recovery.

The following are not included in this step:

- Emissions linked to food wastage at retail points and at home, for the impact related to such behaviours is independent from the product itself.

2.3.8. Non-attributable processes

Not included in the footprint.

2.3.9. Excluded attributable processes

The following flows have been excluded of the system boundaries:

2.3.9.1. In the whole life cycle

Flows related to services associated with a product such as advertising, sales strategy and marketing, are not considered due to their non-representative impacts at the scale of products, and due to how difficult it is to quantify these impacts.

Delayed emissions: according to the requirements of the GHG Protocol and ISO , delayed emissions must be excluded. Regarding PAS 2050, we do not have any products with a use phase of more than 1 year, so assessment made in DanPrint are not concerned with delayed emissions.

Coproduct: DanPrint does not allow an allocation based on co-products from the production process of a Danone finished product.

Offset: No offset of emissions should be considered when using DanPrint.

Carbon storage: For the emission categories relevant to Danone, no cases are identified where carbon is stored in the product or its component that is not released to the atmosphere over the full life cycle. Carbon storage is therefore not considered in DanPrint assessment.

2.3.9.2. On Danone's plants

Flows related to human activities such as transport of employees are excluded (from home and business travel). Based on a 2017 study by Quantis-Ecofys, passenger vehicles travel represented 6.3% of Danone's scope 1 and 2, which represented 7% of Danone's overall carbon footprint. Passenger vehicles travel therefore represents 0.4% of the overall carbon footprint at group level.

Besides, plant construction, production of machines and transport systems aren't taken into consideration, as their impacts are assumed negligible when bringing back their lifespans to those of the products, and because the lifespan of these infrastructures makes it difficult to assign a carbon impact at the SKU level.

2.3.9.3. On the packaging's production steps

The examined packaging types correspond to a "cradle-to-grave" logic. It however excludes the production of dye, ink and other printing and cutting materials used for labels and cardboard boxes. The exclusion of these steps is due to their lack of significance compared to the main packaging types listed in the diagram and their lack of significance in a product "cradle-to-grave" logic.

2.3.9.4. On the distribution and use steps

The previous transport scheme does not take into account consumers' transport up to the selling point, given that such distance data isn't relevant at the product's scale. Consumers' routes vary a lot for reasons independent from the single product itself, as well as the type of transportation used to get to the store for example.

Impacts related to customers' consumption habits whose occurrence is independent from the product itself have also been excluded. For instance, ingredients that might be consumed with the product but for which there is a wide variety of usage (e.g. ice, extra ingredients…) are not taken into account.

Moreover, production and washing of the dishes used with the product are excluded from the analysis. These steps do not cause a difference between products and will minimize the relative differences between products. Note that an exception exists for bottled water. The PEFCR standard for bottled water states that water is considered consumed with a glass for format equal to or greater than 1L. Taking this into account, it turns out that the impact of large sizes becomes, in several cases, greater than that of small sizes. However, the concentration of plastic is much higher for small formats. In order to avoid what appears to be a physical contradiction, the methodological choice is made to exclude the production and washing of glasses for all Water products.

2.3.9.5. On the end-of-life steps

Emissions linked to food wastage at retail points and at home are not taken into account in the project, for the impact related to such behaviours is independent from the product itself. Moreover, the food waste at supplier level is a data that is difficult to track at SKU level, which limits the interest of taking this into account, because an average data would be used, which can potentially vary a lot according to the SKUs.

For a justification of all excluded life cycle stages, please refer to Danone's annual CDP reporting.

2.3.9.6. Alignment with the GHG Protocol methodology

In accordance with Danone's GHG emissions reporting methodology (audited annually by a third party), the following categories of the GHG Protocol are excluded:

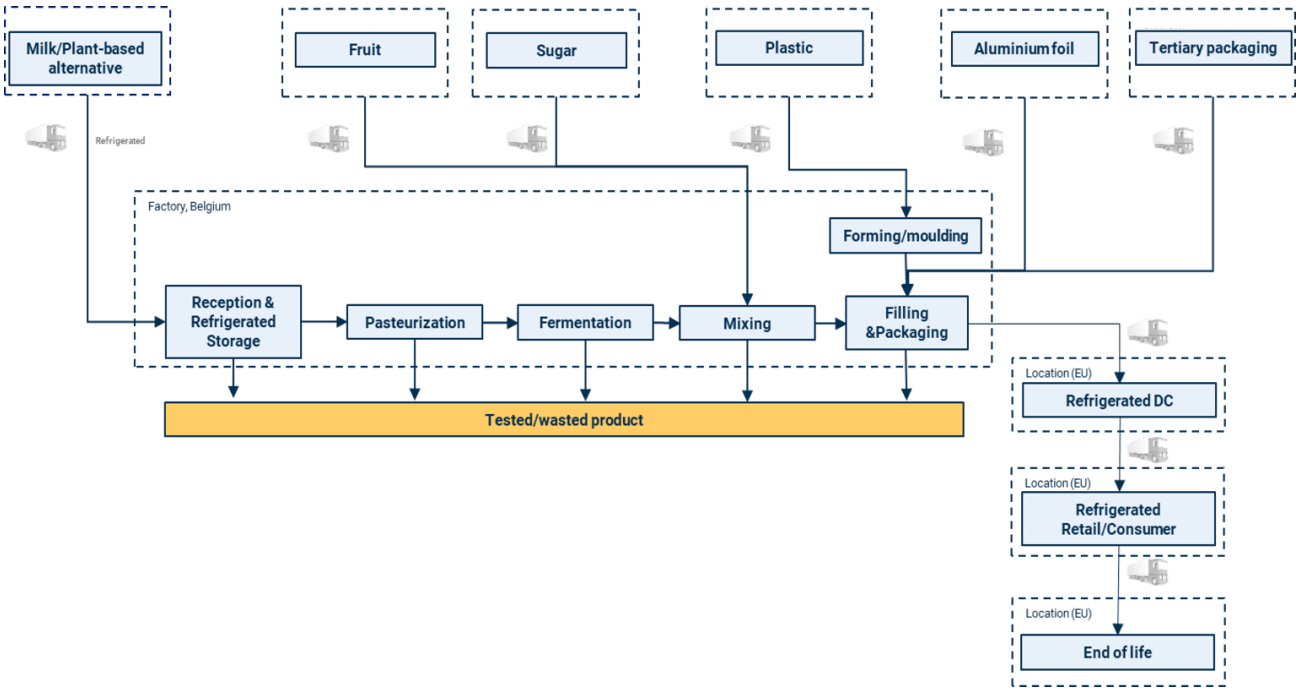
- Scope 3: Capital goods
- Scope 3: Business travel
- Scope 3: Employee commuting
- Scope 3: Downstream leased assets
- Scope 3: Franchises
- Scope 3: Investments
- Scope 3: Other (upstream)
- Scope 3: Other (downstream)

2.3.9.7. Alignment with the available PEFCR

The specific PEFCR models Product Environmental Footprint Category Rules for Dairy Products - February 2020 is followed. This methodology proposes boundaries in the product-specific life cycle assessment. The following steps (PEFCR methodology) are excluded:

- 05. Distribution: transport to the end user
- 06. Use: dishwashing
- 07. End-of-Life food waste (related to the consumer)

Figure 1. Process map Rotselaar factory



2.4. Methodology

2.4.1. Methodological choices

The carbon footprints of Actimel products were measured using the DanPrint 2.2 tool. developed by EcoAct and following the Life Cycle Assessment principles, according to the European Commission most recent guidelines (PEFCR) and following the international standard ISO 14040 and ISO 14044. Besides, the DanPrint 2.2 calculation methodology has been certified by Carbon Trust in 2022 against ISO 14067, GHG Protocol Product guidelines and PAS 2050.
The tool measures carbon footprint emissions according to the GHG Protocol and encompasses direct emissions of Danone's sites (scope 1), indirect emissions due to the production of electricity, steam, heating and cooling consumed by Danone's sites (scope 2) and all other indirect emissions that occur in Danone's value chain (scope 3).

2.4.1.1. End-of-life profile

The modelling of the end-of-life profile was carried out in accordance with the harmonized methodology for calculating the environmental footprint of products developed by the European Commission. This methodology, aimed at assessing the contribution of products to the circular economy, was developed to modify the rules for allocating the impacts/benefits of recycling as well as to take into account additional factors that allow the degradation of materials to be incorporated during recycling. The formula used in the methodology to model end-of-life is called the circular footprint formula (CFF). The CFF is a combination of "material + energy + disposal".

2.4.1.2. Cut-off criteria rule

All inputs for which data are available are included in the LCI of the product, thus most of the time 100% of the input will be taken into account. On the specific point of view in the study, the cut-off rule of 5% of the total mass of the product was checked throughout the life cycle analysis. In other words the proportion of modelled elements represents at least 95% of the total mass of the product, throughout the life cycle analysis.

2.4.1.3. Methodology used for electricity

Two different approaches to account for emissions from power generation are used in DanPrint:

- The location-based method considers average emission factors for the electricity grids that provide electricity to a reporting organization.
- The market-based method considers contractual arrangements under which the reporting organization provides power from specific suppliers or sources, such as renewable energy.
  Many organizations follow a type of dual reporting by reporting gross and net Scope 2 emissions, with gross emissions equivalent to the location based method and net emissions reflecting reductions from green power purchases.

According to the GHG Protocol methodology, Scope 2 guidance (WRI, WBCSD), market-based data is used.

2.4.1.4. Land-use change impact inclusion

Concerning land-use change impact inclusion, it is accounted in the emission factor used in the assessments. The main risks of land use change are considered to be dairy ingredients and is considered as low since sourcing is from Belgium.

2.4.1.5. Avoided emissions

No avoided emissions are counted in this study.

2.4.2. Key Assumptions

The list of assumptions that were taken for the Actimel carbon footprint assessments are detailed in 1.6 key assumptions of this PER report

It is considered that certification of Danprint 2.2 calculation model against ISO 14067, PAS 2050 and GHG Protocol Products standards means that the assumptions made in the DanPrint 2.2 calculation model are consistent with these standards.

Parameter uncertainty:
Global warming power (GWP) of GHG, provided by IPCC, has an uncertainty of the order of 35% for the 90% confidence interval, source IPCC AR4. All emission factors used in DanPrint 2.2 are, at best, taken from specific sources (e.g. CoolFarm for milk), if not from a database (e.g. EcoInvent). The emission factors have traced sources which are detailed in the Danone EF tab of DanPrint. We assume that the EFs used have varying levels of uncertainty which may have a varying effect on the result

Scenario uncertainty:
All the methodological scenarios used in DanPrint are detailed in section "1.3 References" of this methodological report. Furthermore, we assume that the uncertainties inherent in the models used create, by extension, uncertainties in the evaluation scenarios that we carry out via DanPrint. Conducting an evaluation via DanPrint also requires users to make assumptions. The user must consider that the data collection, as well as the use of a supplier or combined EF, are assumptions, which have a variable influence on the uncertainty of the result. When assumptions are made, they must be captured by the user. When a DanPrint result is used in any way (communication, evaluation of a renovation…), the list of assumptions made must be clearly defined to have available the uncertainties related to these choices

Model uncertainty:
Model uncertainty arises from limitations in the ability of the modeling approaches used to reflect the real world. Simplifying the real world into a numeric model always introduces some inaccuracies." We assume that some simplifications are made in the methodological choices made in DanPrint, notably in the calculation limits. However, all the methodological choices are disclosed in this document and are made to be as close as possible to reality and to have calculation methods that are as accurate as possible.

2.4.3. Allocation between inputs and outputs

According to current standards, inputs and outputs of multifunctional processes must be allocated to different products if allocation cannot be avoided, following the clearly stated procedures, with documented and explained allocation rules.

The BP X30-323-0 methodological appendix prioritizing allocation rules between products and coproducts by sharing the impact:

1) Based on separate processes,
2) Based on physical relationships related to the functional units of the product,
3) By extending the frontiers,

4) Based on the economic value,
5) Based on several of these rules.

In the case of Danprint:

- Production of dairy ingredients, allocation per Dry Matter Content. Allocating the production of dairy ingredients with DMC methodology is equivalent to allocating the total carbon impact of the raw milk to the dry matter that composes the milk, and the rest of the composition (water) is considered carbon free. As dairy ingredients are derived from milk with a variable % of DMC depending on the ingredient, the allocation by DMC is the most accurate for this calculation.
- Manufacturing of products, allocation to each product based on a volume basis (for Water products) or weight basis (for other product categories).
- Storage of products (warehouses or stores) : Allocation to each product based on a volume basis. Concerning warehouse storage : The allocations made for energy consumption are based on the volume of the products, i.e. in kWh/pallet (= kWh/m3 in DanPrint).
  Concerning storage at home: a volume multiplier is applied to the product, according to the PEFCR standard of the product in question
- End-of-life : The section 2.4.1.2 End-of-life profile describes the procedure
- Default road transportation of ingredients and finished products:
  There is no allocation made for the transport of goods. The default calculation is made according to the rules set out in Part 4 of this methodological report, depending on the step of LCA under consideration, using a default emissions factor. The FE used in DanPrint 2.2 is calculated following NF EN 15804+A1 standard):
  EF road default = EF diesel x consumption at full load x (2/3 + 1/3 x loading rate + 2/3 empty return rate) / transported load

2.4.4. Allocation due to recycling

Please refer to the section, 2.4.1.2. End-of-life profile.

2.4.5. Use-phase

Emissions related to the use of sold products encompass the energy consumption associated with the product's chilled storage in retail distribution centers, retails stores and in consumers' home. Emissions therefore depend on the associated quantity of electricity and natural gas consumed as well as on the refrigerant gas losses.

Emissions from Used of Sold products derive from sales volumes (in ktons), WBU average load per pallet, storage duration and average volume stored.

Depending on those parameters emission information is automatically imported from Danone company organizational reporting within DanPrint tool, gathered in the "FE Use of sold products".

2.4.6. Fugitive and process emissions

Not relevant

2.4.7. Grouping

Not relevant

2.4.8. Methodological changes since previous report

No changes in the DanPrint methodological report

2.4.9. References

Danprint 2.2 tool was developed in accordance with:

- The principles and requirements for conducting life cycle assessments specified by the NF EN ISO 14040: 2006 and EN ISO 14044: 20061 227
- Thus, the following documents were analysed to build Danprint2.1 tool:
- BP X30 323_0 and BP X30 323_0 revised in 2014
- ILCD Handbook. General guide for Life Cycle Assessment – Detailed guidance. JRC. 2010
- PEFCR, Product Environmental Footprint Category Rules Guidance, 2018

2.5. Data

2.5.1. Data Collection and Validation

The data collection was done with an internal template.

Primary data were sourced to support the main lifecycle stages, such as:

- **Raw milk supply:** Danone sources its milk from approximatively 80 farms located in an average of 75kms around Rotselaar factory. 99%+ of the those farms are evaluated each year to measure individually there emissions using the Cool Farm Tool. Thus, Danone was able to provide emission factors (kg CO2eq/litre of milk) for each farm, computed into one emission factor with an weighted average allocation rule.
- **Dairy ingredients:** data for skimmed milk came from Cool Farm Tool. Electricity grid mix carbon footprint is calculated with emissions factors from DEFRA database (emission factor),
- **Dairy processing:** Rotselaar plant operational data and production output
- The energy mix comes from Danone's internal annual reporting.
- The emission factors related to factories energy consumption come from Ecoinvent 3.3 for the electricity and Intergovernmental Panel on Climate Change (IPCC) 2006 (Energy Industry) v1.0 (AR5 Applied) for natural gas
- Data regarding waste comes from information reported both at plant level and on supply-chain at Distribution CBU level. For Packaging waste in supply-chain, the volume derives from Food Waste volume combined with the packaging ratio of the reporting entity.
- For the Factory step, an average based on the production volume of year N-1 and the energy consumption of year N-1 is used to obtain the energy intensity of the evaluated product.
- The method is similar for waste (average on N-1 production and N-1 waste)
- **Transport:** Distribution transport modes & distances down to the clients' warehouses located in the destination markets,

Danone engaged with internal stakeholders to obtain information on:

- Products recipe
- Origin of the ingredients
- Packaging
- Downstream transportation
- Energy consumption in the Distribution Center

Several items were collected in addition to the data (including the consumption instructions on the packaging, the palletization scheme of the packaging…). These elements were transmitted to the team in charge of the audit.

Secondary data were sourced to support various lifecycle stages, such as:

- **Dairy ingredients:** secondary emissions factors are employed for condensed milk and powdered milk.
- **Other ingredients used:** emission factors for these ingredients are sourced from the Agribalyse and Ecoinvent databases. More detailed can be found in the Danprint 2.2 tool, EF Danone tab.
- **Packaging:** for materials used, emission factors for packaging come either from Ecoinvent, Plastic Europe or European Aluminium databases. Regarding process and transport of packaging, data come from internal Danone data gathered from suppliers. When multiple sources are involved, it could be calculated as weighted average of those different sources.
- **End of life:** This depends on the country of distribution and the number of use of each type of packaging input in the final product. The emissions related to the loss of products' contents at home or in distribution points is therefore excluded from the analysis. Data either comes from Ademe, Ecoinvent databases, or from calculations based on the circular economy formula.

2.5.2. Data Quality

The data quality assessments were carried out based on a key developed internally at Carbon Trust. The overall data quality for the project was good, because the data used comes from different interlocutors, specialized in each of their fields (ingredients, packaging, geographical source of each item…). The products' recipes are analysed individually. The data related to the products are extracted from our internal databases. The data used for the transformation and downstream logistics parts of the product are Danone specific data. The activity data used is dated 2020 and 2022, the most recent full year data at the time of this project, which started mid-2023

Table 5: Data quality assessment for material data points

Data quality is the following for each material data point and phase of the life cycle.

Data point	Emission Factor Data Quality Indicator	Activity Data Quality Indicator	Application Data Quality Indicator
Raw milk supply	Good	Good	Good
Dairy processing – energy consumption	Good	Good	Good
Non-dairy ingredients	Good	Good	Good
Packaging – virgin HDPE bottles	Good	Good	Good
Distribution – downstream – road default (DC -> store)	Medium	Good	Good
Use	Medium	Good	Good
Virgin HDPE bottles (bottle) (end of life)	Medium	Good	Good

2.6. Results

Table 6.1: GHG footprint (gCO2e/100g) per life-cycle stages for Actimel in Belgium in 2020

Life-cycle stages	SKU numbers	127263	149109	21385	127194	127255	127258	127265	133196	21386	179030	178745	133192	133193	133194
Dairy ingredient	gCO2/100g)	77.2	77.2	77.2	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	59.8	59.8	56.8
	% in full life-cycle	60.24%	60.24%	60.24%	57.23%	57.23%	57.23%	57.23%	57.23%	57.23%	57.23%	57.23%	46.67%	46.67%	44.34%
Other ingredients	gCO2/100g)	6.7	6.7	6.7	8.7	8.7	8.7	8.7	8.7	8.7	8.3	8.7	1.5	1.5	3.8
	% in full life-cycle	5.19%	5.19%	5.19%	6.81%	6.79%	6.80%	6.80%	6.81%	6.80%	6.44%	6.81%	1.14%	1.14%	2.96%
Packaging	gCO2/100g)	18.3	18.3	18.3	18.3	18.3	18.3	18.3	19.3	18.3	18.3	19.3	17.5	18.3	17.2
	% in full life-cycle	14.27%	14.27%	14.27%	14.27%	14.27%	14.27%	14.27%	15.08%	14.27%	14.27%	15.06%	13.63%	14.30%	13.39%
Production	gCO2/100g)	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
	% in full life-cycle	4.79%	4.79%	4.79%	4.79%	4.79%	4.79%	4.79%	4.79%	4.79%	4.79%	4.79%	4.79%	4.79%	4.79%
Transport	gCO2/100g)	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.5	1.5	1.5	1.3
	% in full life-cycle	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%	1.30%	1.29%	1.25%	1.18%	1.20%	1.20%	1.02%
Use	gCO2/100g)	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.9	5.6	5.9	5.6	5.6	5.6	5.6
	% in full life-cycle	4.40%	4.39%	4.39%	4.40%	4.39%	4.39%	4.40%	4.59%	4.39%	4.61%	4.40%	4.40%	4.40%	4.40%
End of life	gCO2/100g)	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.4	12.6	12.6	12.7	9.0	9.0	9.0
	% in full life-cycle	9.81%	9.81%	9.81%	9.81%	9.81%	9.81%	9.81%	10.49%	9.81%	9.81%	9.93%	7.00%	7.00%	7.00%
Total of GHG footprint (gCO2/100g)		128.10	128.08	128.08	126.32	126.26	126.28	126.31	128.47	126.29	126.06	127.33	100.99	101.85	99.81
Total of GHG footprint Rounded (gCO2/100g)		130	130	130	130	130	130	130	130	130	130	130	100	100	100

Table 6.2: GHG footprint (gCO2e/100g) per life-cycle stages for Actimel in Luxemburg in 2020

Life-cycle stages	SKU numbers	127263	149109	21385	127194	127255	127258	127265	133196	21386	179030	178745	133192	133193	133194
Dairy ingredient	gCO2/100g)	77.2	77.2	77.2	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	59.8	59.8	56.8
	% in full life-cycle	59.56%	59.56%	59.56%	56.58%	56.58%	56.58%	56.58%	56.58%	56.58%	56.58%	56.58%	46.15%	46.15%	43.84%
Other ingredients	gCO2/100g)	6.7	6.7	6.7	8.7	8.7	8.7	8.7	8.7	8.7	8.3	8.7	1.5	1.5	3.8
	% in full life-cycle	5.14%	5.14%	5.14%	6.74%	6.71%	6.73%	6.73%	6.74%	6.73%	6.37%	6.74%	1.13%	1.13%	2.93%
Packaging	gCO2/100g)	18.3	18.3	18.3	18.3	18.3	18.3	18.3	19.3	18.3	18.3	19.3	17.5	18.3	17.2
	% in full life-cycle	14.11%	14.11%	14.11%	14.11%	14.11%	14.11%	14.11%	14.91%	14.11%	14.11%	14.89%	13.47%	14.14%	13.24%
Production	gCO2/100g)	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
	% in full life-cycle	4.73%	4.73%	4.73%	4.73%	4.73%	4.73%	4.73%	4.73%	4.73%	4.73%	4.73%	4.73%	4.73%	4.73%
Transport	gCO2/100g)	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	2.8
	% in full life-cycle	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	1.28%	2.43%	2.40%	2.37%	2.30%	2.31%	2.32%	2.13%
Use	gCO2/100g)	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.9	5.6	5.9	5.6	5.6	5.6	5.6
	% in full life-cycle	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%	4.54%	4.35%	4.56%	4.35%	4.35%	4.35%	4.35%
End of life	gCO2/100g)	12.6	12.6	12.6	12.6	12.6	12.6	12.57	13.4	12.6	12.6	12.7	9.0	9.0	9.0
	% in full life-cycle	9.70%	9.70%	9.70%	9.70%	9.70%	9.70%	11.10%	10.37%	9.70%	9.70%	9.81%	6.93%	6.93%	6.93%
Total of GHG footprint (gCO2/100g)		129.6	129.5	129.5	127.8	127.7	127.7	127.8	129.9	127.7	127.5	128.8	102.4	103.3	101.3

Total of GHG footprint rounded (gCO2/100g)	130	130	130	130	130	130	130	130	130	130	130	100	100	100

Table 6.3: GHG footprint (gCO2e/100g) per life-cycle stages for Actimel in Belgium in 2022

Life-cycle stages	SKU numbers	127263	149109	21385	127194	127255	127258	127265	133196	21386	179030	178745	133192	133193	133194
Dairy ingredient	gCO2/100g)	68.5	68.5	68.5	65.1	65.1	65.1	65.1	65.1	65.1	63.2	66.2	52.2	52.2	49.6
	% in full life-cycle	57.39%	57.39%	57.39%	54.52%	54.52%	54.52%	54.52%	54.52%	54.52%	52.99%	55.45%	43.79%	43.79%	41.60%
Other ingredients	gCO2/100g)	6.7	6.7	6.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	1.5	1.5	3.8
	% in full life-cycle	5.58%	5.58%	5.58%	7.32%	7.32%	7.32%	7.32%	7.30%	7.32%	7.32%	7.32%	1.22%	1.22%	3.18%
Packaging	gCO2/100g)	18.3	18.3	18.3	18.3	18.3	18.3	18.3	19.3	18.3	18.3	20.0	17.5	18.3	17.2
	% in full life-cycle	15.33%	15.32%	15.32%	15.33%	15.32%	15.32%	15.33%	16.19%	15.32%	15.33%	16.78%	14.63%	15.35%	14.38%
Production	gCO2/100g)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
	% in full life-cycle	5.06%	5.06%	5.06%	5.06%	5.06%	5.06%	5.06%	5.06%	5.06%	5.06%	0.00%	5.06%	5.06%	5.06%
Transport	gCO2/100g)	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.4	1.5	1.5	1.5	1.3
Transport	% in full life-cycle	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.41%	1.39%	1.39%	1.17%	1.28%	1.29%	1.29%	1.07%
Use	gCO2/100g)	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.9	5.6	5.6	5.6	5.6	5.6	5.6
Use	% in full life-cycle	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.93%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%
End of life	gCO2/100g)	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.4	12.6	12.6	14.0	9.0	9.0	8.97
	% in full life-cycle	10.54%	10.53%	10.53%	10.54%	10.53%	10.53%	10.54%	11.26%	10.53%	10.54%	11.71%	7.52%	7.52%	7.52%
Total of GHG footprint (gCO2/100g)		119.3	119.3	119.3	118.0	117.9	117.9	118.0	120.1	117.9	115.9	122.1	93.3	94.2	92.5
Total of GHG footprint rounded (gCO2/100g)		120	120	120	120	120	120	120	120	120	120	120	95	95	95

Table 6.4: GHG footprint (gCO2e/100g) per life-cycle stages for Actimel in Luxemburg in 2022

Life-cycle stages	SKU numbers	127263	149109	21385	127194	127255	127258	127265	133196	21386	179030	178745	133192	133193	133194
Dairy ingredient	gCO2/100g)	68.5	68.5	68.5	65.1	65.1	65.1	65.1	65.1	65.1	63.2	65.1	52.2	52.2	49.6
	% in full life-cycle	56.70%	56.70%	56.70%	53.86%	53.86%	53.86%	53.86%	53.86%	53.86%	52.35%	53.86%	43.26%	43.26%	41.10%
Other ingredients	gCO2/100g)	6.7	6.7	6.7	8.7	8.7	8.7	12.1	8.7	8.7	8.7	8.7	1.5	1.5	3.8
	% in full life-cycle	5.51%	5.51%	5.51%	7.23%	7.20%	7.22%	10.06%	7.22%	7.22%	7.23%	7.23%	1.21%	1.21%	3.14%
Packaging	gCO2/100g)	18.3	18.3	18.3	18.3	18.3	18.3	18.3	19.3	18.3	18.3	20.0	17.5	18.3	17.2
	% in full life-cycle	15.14%	15.13%	15.13%	15.14%	15.13%	15.13%	15.14%	15.99%	15.13%	15.14%	16.58%	14.45%	15.17%	14.21%
Production	gCO2/100g)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
	% in full life-cycle	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Transport	gCO2/100g)	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.9	3.0	3.0	3.0	2.7
Transport	% in full life-cycle	2.58%	2.58%	2.58%	2.58%	2.58%	2.58%	2.58%	2.60%	2.58%	2.37%	2.49%	2.47%	2.48%	2.25%
Use	gCO2/100g)	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.9	5.6	5.6	5.6	5.6	5.6	5.6
Use	% in full life-cycle	4.67%	4.66%	4.66%	4.67%	4.66%	4.66%	4.67%	4.87%	4.66%	4.67%	4.67%	4.67%	4.67%	4.67%
End of life	gCO2/100g)	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.4	12.6	12.6	14.0	9.0	9.0	9.0

% in full life-cycle	10.41%	10.40%	10.40%	10.41%	10.40%	10.40%	10.41%	11.12%	10.40%	10.41%	11.57%	7.43%	7.43%	7.43%
Total of GHG footprint (gCO2/100g)	120.8	120.8	120.8	119.4	119.4	119.4	122.8	121.6	119.4	117.3	122.5	94.8	95.7	94.0
Total of GHG footprint rounded (gCO2/100g)	120	120	120	120	120	120	120	120	120	120	120	95	95	95

2.7. Conclusions

This report has presented the results from the carbon footprint study of the Actimel SKUs sold in Belgium and Luxembourg from 2020 and 2022. For all the SKUs on both markets, the intensity of the carbon emissions per functional unit has decreased between 2020 and 2022. This due to the reduction of the footprint of the milk and of the dairy processing.

2.8. Recommendations

2.8.1. Emissions reductions

Actimel is on a continuous journey to reduce its carbon emissions. In order to reach this goal, four categories of projects will be implemented starting in 2021 to reduce emissions.

1) Milk

- Continue rolling out the Bovear feed additive to more farms, reducing methane.
- Pocket digestor project: digestion of the manure and production of green energy
- Carbon monitoring network with Bodemkundigedienst Belgie.
- Local protein in feed via crops fieldbeans and alfalfa.

2) Packaging

- Removal of the banner as of July 2022. This represent a reduction of 4% of plastic usage, reducing the CO2 footprint of the packaging by 5,47% and improving recyclability by design.
- Switch from virgin HDPE to rHDPE
- Switch to bio-HDPE
- Bigger formats

3) Factory & Warehouse

- Steam reduction: Optimisation of steam reduction and hot water recovery circuit for steam reduction
- Fine bubble aeration
- Hotwater loop with heat pump for milk receiving plant
- 1MW solar on parking area
- Rotselaar distribution center energy reduction: explore & implement initiatives to reduce electricity consumption in Rotselaar DC

4) Transport

- Alternative vehicles or fuels with lower greenhouse gas emissions (e.g., electric vehicles or use of biodiesel).
- Simplification and optimization of deliveries to customers (review delivery models to reduce travel distance and optimise truck fill rate).

2.8.2. Data quality improvements

Danone aims to improve data quality in areas where possible. This includes:

- Improving data sourcing for stages where default values were used (notably part of the upstream transportation and part of the downstream transportation).
- Improving the accuracy of emission factors where possible.

2.9. Disclaimer on potential uses of this report

The results presented in this report are unique to the assumptions and practices of Danone Belux. The results are not meant as a platform for comparability to other companies and/or products. Even for similar products, differences in unit of analysis, use and end-of-life stage profiles, and data quality may produce incomparable results. The reader may refer to the GHG Protocol Product Life Cycle Accounting and Reporting Standard (www.ghgprotocol.org) / PAS 2050 specification / ISO 14067 standard for additional insight into the GHG inventory process.

3. Annex

Annex 1: GWP Factors

a 100-year GWP has been used in the carbon assessments of this project

For more details, please refer to the DanPrint methodology guide, 3.6.3 Generic LCA used and 6.2 Uncertainty assessment

Annex 2: Certification Details (Third Party Sign-Off)

This product footprinting study has been subject to an independent critical review to verify whether the methodology used for this LCA is compliant with ISO 14067, GHG Protocol Product, PAS 2050.

Category	Description
Name of the certifier	The Carbon Trust
Date of certification	07/11/2023
Data valid until	06/11/2025