SPRADLING®
For the long run

GREENHOUSE GAS **INVENTORY REPORT**

SPRADLING® GROUP

2023

Photo taken by the Proposal Development Department of FONAFIFO under the agreement established between Proquinal® and FONAFIFO.

1 EXECUTIVE summary

Spradling® Group, aware of its corporate environmental responsibility, decided in 2023 to become a Carbon Neutral company, thus joining global and national efforts to mitigate the effects of Climate Change.

To achieve this, Spradling® Group has allocated human and financial resources to train its associates and implement actions aimed at reducing its greenhouse gas (GHG) emissions. All of this is carried out within a framework of continuous improvement through the implementation of a greenhouse gas management system.

The organization has accounted for direct emissions, indirect emissions from imported energy, and significant indirect emissions within its scope, totaling 146,205 tons of CO_2e. Additionally, it has declared 22,900 tons of CO_2e that need to be offset in the 2023 emissions inventory.

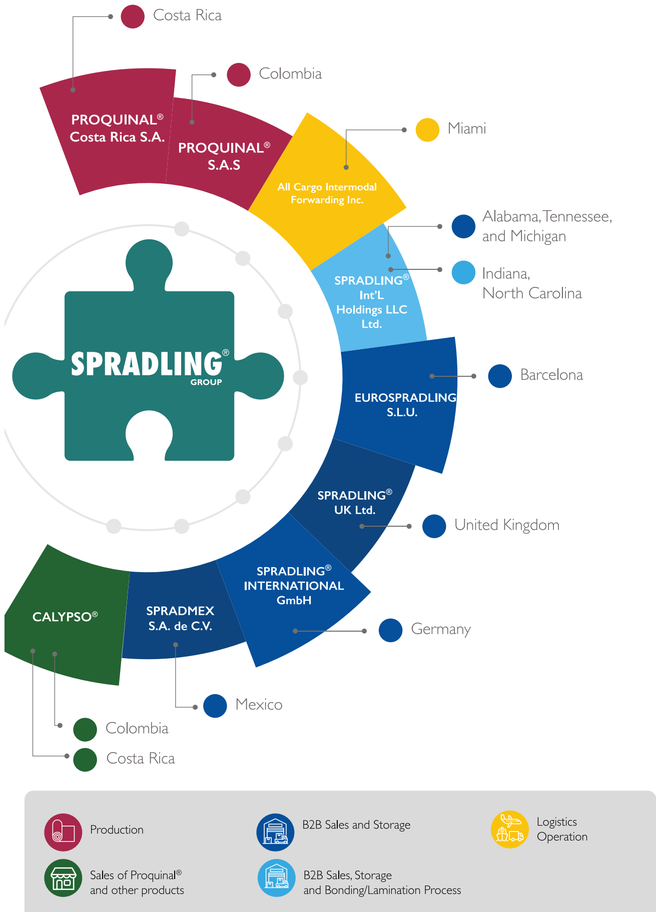
During this year, the organization implemented measures to improve energy performance at Proquinal® Costa Rica S.A, Proquinal® S.A.S, y Eurospradling S.L.U. As a result of these efforts, it achieved a reduction of 53.74 tons of CO_2e.

Table 1. 2023 Carbon Neutral Balance

2023 Emissions	2023 Reduction	2023 Compensation	Balance
146.205	53,74	22.900	0

2 DESCRIPTION OF THE organization

Spradling® Group, is an organization dedicated to the manufacturing and sale of high-quality coated fabrics, films, and flooring. The company operates two production plants and has commercial offices in some of the world's major cities. The following diagram illustrates the group's structure.



The Group operates two production plants for coated fabrics, films, and flooring, called Proquinal® Costa Rica S.A and Proquinal® S.A.S; both dedicated to manufacturing materials for distribution across various regions. The products are then shipped from the plants to commercial offices in the United States, Europe, and customers in Latin America.

For the United States, products are shipped from the production plants to a logistics operator in Miami, All Cargo Intermodal Forwarding Inc (ACIF), which handles distribution to the commercial offices. If required by customers, products may be shipped directly from ACIF without passing through the corresponding commercial office.

Within the United States, commercial offices are located in Alabama, Tennessee, Michigan, Indiana, and North Carolina. These offices store products and dispatch them to customers, specifically in Indiana and North Carolina. Additionally, they are equipped with machinery for fabric joining and laminating processes, which are specifically requested by customers on a made-to-order basis.

The organization also operates commercial offices for product storage and customer dispatch located in Barcelona, the United Kingdom, Germany, and Mexico. These offices are not dedicated solely to local sales but also serve as hubs for commercializing products to other countries in Europe and Latin America.

Additionally, there are the Calypso® Retail Distributors, located in Costa Rica and Colombia. These offices are responsible for the sale of products manufactured by Proquinal®, as well as smaller volumes of products not manufactured by the Group. The business model for this unit focuses on serving retail clients from commercial locations and providing immediate product delivery.

3 PURPOSE AND OBJECTIVE of the report

Spradling® Group aims to achieve Carbon Neutrality as part of its commitment to the deep decarbonization of the economy, which requires significant emission reductions by 2050, as outlined in the Paris Agreement. Additionally, this initiative seeks to contribute to the sustainability of the business while maintaining harmony with the environment. The pursuit of Carbon Neutrality is also part of a broader set of environmental efforts undertaken by the organization, including the implementation and certification of the ISO 14001 international standard at its two production plants.

This report covers the year 2023 and aims to demonstrate Spradling® Group's commitment to achieving Carbon Neutrality. It also seeks to inform stakeholders about the actions, strategies, and efforts undertaken by the organization in its pursuit of Carbon Neutrality and environmental impact mitigation. These goals are achieved through the implementation of programs, standards, and policies that position Spradling® Group as a model for other organizations.

4 INTENDED USE AND USERS of the report

This greenhouse gas emissions, reduction, and offset inventory report is designed to inform its intended users about the annual GHG inventory results. The report presents identifiable, traceable, and verifiable data in compliance with the requirements established in: ISO 14064-1:2019 Greenhouse gases - Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals, ISO 14064-2:2019 Greenhouse Gases - Part 2: Specification with guidance at the project level for quantification, monitoring, and reporting of greenhouse gas emission reductions or removal enhancements, and the Carbon Neutral Verification and Certification Guide.

5 REPORT **manager**

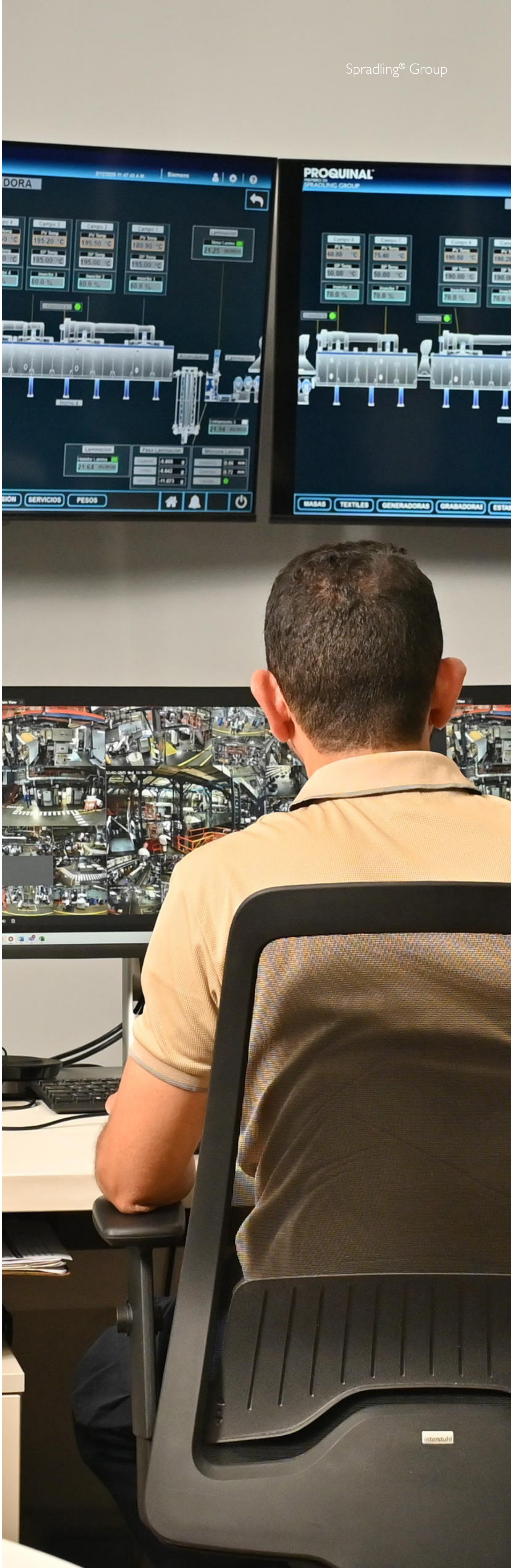
The Health, Safety, and Environment Department is directly responsible for the preparation of the Greenhouse Gas Inventory Report. Its development is supported by key personnel whose roles and responsibilities are considered requirements for Spradling® Group's GHG inventory.

6 REPORT **frequency**

This report is prepared annually, covering all representative data within a calendar year (from January 1st to December 31st). It must be compiled by the department mentioned in the previous section. The report's development should consider, at a minimum, the aspects suggested in Section 9.3 of ISO 14064-1:2019 and the Carbon Neutral Verification and Certification Guide, as well as any future requirements related to greenhouse gases that the organization may adopt.

6 REPORT STRCUTURE **and format**

The report follows the structure outlined in the INTE ISO 14064-1:2019 standard. Some key components include: purpose and objectives of the report, intended use and users, responsibility for report preparation and execution, report frequency, quantification data, policies on report availability and disclosure, description of the organization, reporting period covered, report boundaries, direct emission sources, quantified indirect emissions, base year, emission factor references and Global Warming Potential (GWP) values, etc.



8 DATA AND INFORMATION INCLUDED in the report

This report accounts for GHG emission sources from the Group's production plants and commercial offices. The following tables provide detailed insights into these emissions.

Table 2. GHG Sources Proquinal® Costa Rica S.A 2023

Source of emission	Emission type	Generating activity
Plasticizers in the ITAS-RTO decontamination process	Direct	Plasticizers in internal combustion processes: Drying tunnels in the production process and ITAS-RTO decontamination process
Solvents in the ITAS-RTO decontamination process	Direct	Solvents in internal combustion processes: Drying tunnels in the production process and ITAS-RTO decontamination process
Bunker fuel	Direct	Used in thermal oil heaters for the operation of production machines (generators and calender)
Gas Oil	Direct	Used as fuel in the decontamination equipment (ITAS-RTO)
Diesel	Direct	Used in fire system pumps and the vehicle fleet
LPG	Direct	Used in some forklifts and for the initial startup of ITAS
Gasoline	Direct	Used in the vehicle fleet
Lubricants	Direct	Used for industrial plant maintenance Forklifts and the vehicle fleet
Sprays containing petroleum	Direct	Electronic equipment cleaner
CO_2 Cylinders	Direct	CO_2 extinguishers and fire suppression systems
Wastewater – Septic tank	Direct	Wastewater management through a septic tank. Security post at the main entrance of Proquinal facilities.
Wastewater – Treatment plant	Direct	Wastewater management through a treatment plant for ordinary wastewater from Proquinal facilities
Sludge from the treatment plant	Direct	Disposal of sludge as fertilizer on soil
Refrigerant Gasses	Direct	To replenish leaks in the chilled water equipment (chiller), air conditioners, and compressors. Refrigeration equipment
Acetylene	Direct	For cutting and welding
Sheep	Direct	Enteric fermentation and manure management
Composting	Direct	Composting process and disposal of fertilizer on soil. Leachate disposal from the composting process on soil.
Methane	Direct	Combustion in test chamber
Electrical energy	Indirect from imported energy	Consumption of electricity for industrial processes and administrative offices via a meter
Raw materials	Indirect from products used by the organization	Manufacturing of PVC, solvents, plasticizers, yarn, paper, and filler
Fuels	Indirect from products used by the organization	Extraction of oil, energy, manufacturing and transportation of bunker fuel, gas oil, diesel, LPG, and gasoline

Source of emission	Emission type	Generating activity
Air transportation of raw materials	Indirect from transportation	Air transportation of essential raw materials for production
Maritime transportation of raw materials	Indirect from transportation	Maritime transportation of essential raw materials for production
Ground transportion of raw materials	Indirect from transportation	Ground transportation of essential raw materials for production
Associate commuting	Indirect from transportation	Associate commuting using public or private transport
Maritime transport of products	Indirect from transportation	Maritime transport of finished products
Local ground transportation of product	Indirect from transportation	Local ground transportation of finished products
International ground transportation of product	Indirect from transportation	International ground transportation of finished products
Ground transportation of waste	Indirect from transportation	Ground transportation of waste
Recycling of solid waste	Indirect from products used by the organization	Recycling of solid waste generated in operations
Co-processing of solid waste	Indirect from products used by the organization	Co-processing of solid waste generated in operations
Treatment of solid waste in landfills	Indirect from products used by the organization	Treatment of solid waste in landfills

Table 3. GHG Sources Proquinal® S.A.S 2023

Source of emission	Emission type	Generating activity
Diesel	Direct	Uso de vehículos, red contraincendios CEDI, plantas eléctricas de emergencias textil y planta principal
Gasoline	Direct	Use of vehicles
Natural Gas	Direct	Boilers (thermal oil heating) and thermal regenerators
LPG	Direct	Forklifts
Acetylene	Direct	Maintenance activities
Lubricants	Direct	Maintenance activities
Lubricantes	Direct	Actividades de mantenimiento
CO_2 Cylinders	Direct	CO_2 extinguishers and fire suppression system
Refrigerants	Direct	Refrigeration equipment leaks
Plasticizers	Direct	Thermal Regeneration Process
Solvents	Direct	Thermal Regeneration Process
Electricity Consumption	Indirect from imported energy	Electricity consumption for industrial processes and administrative offices
Transport of raw materials	Indirect from transportation	Inbound logistics operations
Transport of finished products	Indirect from transportation	Outbound logistics operations
Associate commuting	Indirect from transportation	Employee transportation to different sites
Business trips	Indirect from transportation	Flights and ground travel for business purposes

Source of emission	Emission type	Generating activity
Purchase of raw materials	Indirect from products used by the organization	Procurement of goods and services
Fuels	Indirect from products used by the organization	Fuel extraction for energy production and use in stationary and mobile sources
Waste management	Indirect from products used by the organization	Waste generated in operations: recyclable, hazardous, and ordinary

Table 4. GHG Sources All Cargo Intermodal Forwarding 2023

Source of emission	Emission type	Generating activity
Propane consumption	Direct	Propane consumption in forklifts
Use of lubricants	Direct	Use of lubricants in forklift maintenance
Refrigerants	Direct	Refrigerant leakage in cooling equipment
Electricity	Indirect from imported energy	Electricity consumption
Treatment of solid waste	Indirect from products used by the organization	Solid waste treatment from operations in a landfill
Ground transportation of product	Indirect from transportation	Product transportation from ACIF to commercial branches, customers in the United States, and the port
Maritime transport of products	Indirect from transportation	Product transportation between ports

Table 5. GHG Sources Spradling® International Inc. - Alabama 2023

Source of emission	Emission type	Generating activity
Propane consumption	Direct	Propane consumption in forklifts
Natural gas	Direct	Natural gas consumption for heating
Use of lubricants	Direct	Use of lubricants in forklift and vehicle maintenance
Gasoline	Direct	Gasoline consumption for company and rented vehicles
Refrigerants	Direct	Refrigerant leakage in air conditioning and refrigeration equipment in operations
Fire extinguishers	Direct	Refilling fire extinguishers
Aerosols	Direct	Aerosol consumption
Electricity	Indirect from imported energy	Electricity consumption in the facilities
Treatment of solid waste in landfills	Indirect from products used by the organization	Treatment of solid waste in landfills
Solid waste treatment through recycling	Indirect from products used by the organization	Solid waste treatment through recycling
Vehicle transportation	Indirect from transportation	Transportation of personnel by vehicle for business trips
Air transportation	Indirect from transportation	Air travel of personnel for business trips

Source of emission	Emission type	Generating activity
Ground transportation of product	Indirect from transportation	Ground transportation of product to the customer and port
Maritime transportation of product	Indirect from transportation	Maritime transportation of product between ports

Table 6. GHG Sources Spradling® International Inc. – North Carolina 2023

Source of emission	Emission type	Generating activity
Propane consumption	Direct	Propane consumption in forklifts
Natural gas	Direct	Natural gas consumption for heating and laminating equipment
Fire extinguishers	Direct	Refilling fire extinguishers
Use of lubricants	Direct	Use of lubricants in forklift maintenance
Aerosols	Direct	Aerosol consumption
Refrigerants	Direct	Refrigerant leakage in air conditioning and refrigeration equipment in operations
Gasoline	Direct	Gasoline consumption for rented vehicles
Electricity	Indirect from imported energy	Electricity consumption in the facilities
Treatment of solid waste in landfills	Indirect from products used by the organization	Treatment of solid waste in landfills
Vehicle transportation	Indirect from transportation	Transportation of personnel by vehicle for business trips
Air transportation	Indirect from transportation	Air travel of personnel for business trips

Table 7. GHG Sources Spradling® International Inc. - Indiana 2023

Source of emission	Emission type	Generating activity
Propane consumption	Direct	Propane consumption in forklifts
Natural gas	Direct	Natural gas consumption for heating and flame lamination
Flame lamination	Direct	Bonding materials using a flame laminator
Use of lubricants	Direct	Use of lubricants in forklift and vehicle maintenance
Aerosols	Direct	Consumption of aerosol products
Fire extinguishers	Direct	Refilling fire extinguishers
Refrigerants	Direct	Refrigerant leakage in air conditioning and refrigeration equipment in operations
Diesel	Direct	Diesel consumption for the company vehicle
Gasoline	Direct	Gasoline consumption for rented vehicles
Electricity	Indirect from imported energy	Electricity consumption in the facilities

Source of emission	Emission type	Generating activity
Treatment of solid waste in landfills	Indirect from products used by the organization	Treatment of solid waste in landfills
Vehicle transportation	Indirect from transportation	Transportation of personnel by vehicle for business trips
Air transportation	Indirect from transportation	Air travel of personnel for business trips
Ground transportation of product	Indirect from transportation	Ground transportation of product to the customer and port
Maritime transportation of product	Indirect from transportation	Maritime transportation of product between ports

Table 8. GHG Sources Spradling® International Inc.- Michigan 2023

Source of emission	Emission type	Generating activity
Natural gas	Direct	Natural gas consumption for heating
Refrigerants	Direct	Refrigerant leakage refrigeration equipment in operations
Gasoline	Direct	Gasoline consumption for rented vehicles
Electricity	Indirect from imported energy	Electricity consumption in the facilities
Treatment of solid waste in landfills	Indirect from products used by the organization	Treatment of solid waste in landfills
Solid waste treatment through recycling	Indirect from products used by the organization	Solid waste treatment through recycling
Vehicle transportation	Indirect from transportation	Transportation of personnel by vehicle for business trips
Air transportation	Indirect from transportation	Air travel of personnel for business trips
Ground transportation of product	Indirect from transportation	Ground transportation of product to the customer and port
Maritime transportation of product	Indirect from transportation	Maritime transportation of product between ports

Table 9. GHG Source Spradling® International Inc. - Tennessee 2023

Source of emission	Emission type	Generating activity
Propane consumption	Direct	Propane consumption in forklifts
Natural gas	Direct	Natural gas consumption for heating
Use of lubricants	Direct	Use of lubricants in forklift and vehicle maintenance
Refrigerants	Direct	Refrigerant leakage in air conditioning and refrigeration equipment in operations
Fire extinguishers	Direct	Refilling fire extinguishers
Gasoline	Direct	Gasoline consumption for rented vehicles
Electricity	Indirect from imported energy	Electricity consumption in the facilities

Source of emission	Emission type	Generating activity
Treatment of solid waste in landfills	Indirect from products used by the organization	Treatment of solid waste in landfills
Vehicle transportation	Indirect from transportation	Transportation of personnel by vehicle for business trips
Air transportation	Indirect from transportation	Air travel of personnel for business trips
Ground transportation of product	Indirect from transportation	Ground transportation of product to the customer and port
Maritime transportation of product	Indirect from transportation	Maritime transportation of product between ports

Table 10. GHG Sources Retail Distributor Calypso® S.A.S 2023

Source of emission	Emission type	Generating activity
Refrigerants	Direct	Refrigerant leakage in air conditioning and refrigeration equipment in operations
Fire extinguishers	Direct	Refilling fire extinguishers
Aerosols	Direct	Consumption of aerosol products
Electricity	Indirect from imported energy	Electricity consumption in the facilities
Treatment of solid waste in landfills	Indirect from products used by the organization	Treatment of solid waste in landfills
Solid waste treatment through recycling	Indirect from products used by the organization	Solid waste treatment through recycling
Gasoline consumption	Indirect from transportation	Gasoline consumption for transportation of personnel on business trips
Air transportation	Indirect from transportation	Air travel of personnel for business trips
Ground transportation of product	Indirect from transportation	Ground transportation of product between sites and to customers

Table 11. GHG Sources Retail Distributor Calypso® Costa Rica S.A 2023

Source of emission	Emission type	Generating activity
Diesel consumption	Direct	Diesel consumption in the truck used for shipments
Use of lubricants	Direct	Use of lubricants in the vehicle
Refrigerants	Direct	Refrigerant leakage in air conditioning and refrigeration equipment in operations
Fire extinguishers	Direct	Refilling fire extinguishers
Electricity	Indirect from imported energy	Electricity consumption in the facilities
Treatment of solid waste in landfills	Indirect from products used by the organization	Treatment of solid waste in landfills
Gasoline consumption	Indirect from transportation	Gasoline consumption for transportation of personnel on business trips

Source of emission	Emission type	Generating activity
Diesel consumption	Indirect from transportation	Diesel consumption for transportation of personnel on business trips
Ground transportation of product	Indirect from transportation	Ground transportation of product to customers and courier companies

Table 12. GHG Sources Eurospradling S.L.U 2023

Source of emission	Emission type	Generating activity
Fire extinguishers	Direct	Refilling fire extinguishers
Refrigerants	Direct	Refrigerant leakage in air conditioning and refrigeration equipment in operations
Diesel consumption	Direct	Diesel consumption for transportation by rented or company vehicles
Gasoline consumption	Direct	Gasoline consumption for transportation by rented and company vehicles
Use of lubricants	Direct	Use of lubricants in the vehicle
Electricity	Indirect from imported energy	Electricity consumption in the facilities
Taxi	Indirect from transportation	Transportation of personnel by taxi on business trips
Train	Indirect from transportation	Transportation of personnel by train on business trips
Bus	Indirect from transportation	Transportation of personnel by bus on business trips
Ferry	Indirect from transportation	Transportation of personnel by ferry on business trips
Air	Indirect from transportation	Air travel of personnel on business trips
Ground transportation of product	Indirect from transportation	Ground transportation of product to the client, ports, and airports
Maritime transportation of product	Indirect from transportation	Maritime transportation of product between ports
Air transportation of product	Indirect from transportation	Air transportation of product between airports
Treatment of solid waste in landfills	Indirect from products used by the organization	Treatment of solid waste in landfills
Solid waste treatment through recycling	Indirect from products used by the organization	Solid waste treatment through recycling

Table 13. GHG Sources Spradling® GmbH 2023

Source of emission	Emission type	Generating activity
Diesel consumption	Direct	Diesel consumption for transportation by company vehicle
Use of lubricants	Direct	Use of lubricants in the vehicle
Refrigerants	Direct	Refrigerant leakage in air conditioning and refrigeration equipment in operations
Electricity	Indirect from imported energy	Electricity consumption in the facilities

Source of emission	Emission type	Generating activity
Treatment of solid waste in landfills	Indirect from products used by the organization	Treatment of solid waste in landfills
Gasoline consumption	Indirect from transportation	Gasoline consumption for transportation of personnel on business trips
Taxi	Indirect from transportation	Transportation of personnel by taxi on business trips
Train	Indirect from transportation	Transportation of personnel by train on business trips
Bus	Indirect from transportation	Transportation of personnel by bus on business trips
Ferry	Indirect from transportation	Transportation of personnel by ferry on business trips
Air	Indirect from transportation	Air travel of personnel on business trips
Ground transportation of product	Indirect from transportation	Ground transportation of product to the client, ports, and airports
Maritime transportation of product	Indirect from transportation	Maritime transportation of product between ports
Air transportation of product	Indirect from transportation	Air transportation of product between airports

Table 14. GHG Sources Spradling® UK Ltd 2023

Source of emission	Emission type	Generating activity
Extinguishers	Direct	Refilling fire extinguishers
Refrigerants	Direct	Refrigerant leakage in refrigeration equipment in operations
Electricity	Indirect from imported energy	Electricity consumption in the facilities
Diesel consumption	Indirect from transportation	Diesel consumption for transportation of personnel on business trips
Ground transportation of product	Indirect from transportation	Ground transportation of product to the client and port
Maritime transportation of product	Indirect from transportation	Maritime transportation of product between ports
Treatment of solid waste in landfills	Indirect from products used by the organization	Treatment of solid waste in landfills

Table 15. GHG Sources Spradmex S.A de C.V 2023

Source of emission	Emission type	Generating activity
Gasoline consumption	Direct	Gasoline consumption for transportation of personnel by rented vehicles
Refrigerants	Direct	Refrigerant leakage in refrigeration equipment in operations
Aerosols	Direct	Consumption of aerosol products
Fire extinguishers	Direct	Refilling fire extinguishers
Electricity	Indirect from imported energy	Electricity consumption in the facilities

Source of emission	Emission type	Generating activity
Treatment of solid waste in landfills	Indirect from products used by the organization	Treatment of solid waste in landfills
Gasoline consumption	Indirect from transportation	Gasoline consumption for transportation of personnel on business trips
Taxi	Indirect from transportation	Transportation of personnel by taxi on business trips
Air	Indirect from transportation	Air travel of personnel on business trips
Ground transportation of product	Indirect from transportation	Ground transportation of product to the client and airport
Air transportation of product	Indirect from transportation	Air transportation of product between airports

9 REPORTING **period**

The reporting period is set from January 1 to December 31, 2023, for the inventory assessment of greenhouse gas (GHG) emissions. Additionally, the same period, from January 1 to December 31 of 2023, has been established for comparison purposes to demonstrate targeted reduction actions in specific emissions achieved through the implementation of the management plan.

10 REPORT AVAILABILITY **policy**

This report will be published in the Company's information system, where the GHG Emissions, Reduction, and Offsets Inventory Report is available to Management and the Organization's personnel. Additionally, it will be accessible to duly accredited validation and verification bodies. The report will be disseminated via email and/or audit meetings. Furthermore, it will also be available to customers on the company's website.

11 SCOPE AND BOUNDARIES OF THE **Carbon Neutrality process**

Scope: Direct emissions, indirect emissions from imported energy, and significant indirect emissions of carbon dioxide, methane, hydrochlorofluorocarbons, propane, butane, and isobutane associated with the manufacturing and sale of high-quality coated fabrics, films, and flooring under operational control. They are generated at the Proquinal® Costa Rica S.A. and Proquinal® S.A.S production plants, as well as at their commercial subsidiaries Spradling® International Inc. - South, Eurospradling S.L.U, All Cargo International Forwarding Inc., Spradling GmbH, Spradling UK Ltd, Spradmex S.A de C.V, retail distributor Calypso® Costa Rica S.A, and retail distributor Calypso® S.A.S.

Organizational boundaries: Spradling® Group consolidates its GHG emissions under the operational control approach. The facilities under operational control include two production plants and multiple commercial offices:

- Proquinal® Costa Rica S.A
- Proquinal® S.A.S
- All Cargo International Fowarding Inc (ACIF)
- Spradling® International Inc. - South (Alabama, Carolina del Norte, Indiana, Michigan y Tennessee)
- Eurospradling S.L.U

- Spradling® UK, Ltd
- Spradmex S.A de C.V
- Spradling® GmbH
- Comercializadora Calypso® Costa Rica S.A
- Comercializadora Calypso® S.A.S

Spradling® Group does not have drains within its organizational boundaries.

Report boundaries: The organization establishes its reporting boundaries in accordance with the requirements of standards INTE-ISO 14064-1 and the Guide for Verification and Certification of Carbon Neutrality by Icontec, and references The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard.

This report also includes the identification and quantification of direct GHG emissions, measured separately in metric tons of CO_2e for CO_2, CH_4, N_2O, HFC, HCFC, propane, butane and isobutane, indirect emissions from imported energy, and significant indirect emissions.

12 EMISSIONS inventory

A comprehensive quantification of all direct and indirect GHG emissions within the defined scope allowed a total emissions inventory for the 2023 period, as detailed in the following table:

Table 16. 2023 Inventory of GHG Emissions for Spradling® Group

Emissions	Site	Tons (t)								
		CO_2	CH_4	N_2O	HFC	HCFC	Other gases	SF_6	NF_3	Total t CO_2e
Directs (DE)	Proquinal Costa Rica S.A	9,712.60	14.82	33.55	58.12	11.37	0.00	0.00	0.00	**9.830,5**
	Proquinal S.A.S	8,416.84	3.90	3.50	2.31	0.00	0.00	0.00	0.00	**8.426,5**
	Spradling International Inc Alabama	141.27	0.13	0.74	0.56	0.00	0.00	0.00	0.00	**142.7**
	Spradling International Inc Carolina del Norte	29.58	0.03	0.30	0.29	0.00	0.00	0.00	0.00	**30.2**
	Spradling International Inc Indiana	740.48	0.32	0.83	0.29	0.00	0.00	0.00	0.00	**741.9**
	Spradling International Inc Michigan	10.43	0.01	0.01	0.00	0.00	0.00	0.00	0.00	**10.4**
	Spradling International Inc Tennessee	65.12	0.05	0.35	0.12	0.22	0.00	0.00	0.00	**65.9**
	All Cargo International Forwarding	8.23	0.02	0,25	0.00	0.00	0.00	0.00	0.00	**8.5**
	Spradmex S.A de C.V	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.1**
	Eurospradling S.L.U.	5.32	0.00	0.02	0.00	0.00	0.00	0.00	0.00	**5.4**
	Spradling UK Ltd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.0**
	Spradling GmbH Ltd	14.10	0.00	0.18	0.32	0.00	0.00	0.00	0.00	**14.6**
	Retail Distributor Calypso Costa Rica S.A	1.83	0.00	0.03	0.21	0.00	0.00	0.00	0.00	**2.1**
	Retail Distributor Calypso S.A.S	0.01	0.00	0.00	1.56	4.35	0.00	0.00	0.00	**5.9**
Total Directs		19,145.93	19.31	39.75	63.78	15.94	0.00	0.00	0.00	19,284.7

Emissions	Site	Tons (t)								
		CO_2	CH_4	N_2O	HFC	HCFC	Other gases	SF_6	NF_3	**Total t CO_2e**
Indirect from imported energy (EI)	Proquinal Costa Rica S.A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**972.9**
	Proquinal S.A.S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**2,166.6**
	Spradling International Inc Alabama	92.16	0.18	0.25	0.00	0.00	00.00	0.00	0.00	**92.6**
	Spradling International Inc Carolina del Norte	110.07	0.23	0.34	0.29	0.00	0.00	0.00	0.00	**110.6**
	Spradling International Inc Indiana	111.8	0.27	0.37	0.00	0.00	0.00	0.00	0.00	**112.2**
	Spradling International Inc Michigan	19.93	0.05	0.07	0.00	0.00	0.00	0.00	0.00	**20.1**
	Spradling International Inc Tennessee	41.49	0.10	0.14	0.00	0.00	0.00	0.00	0.00	**41.7**
	All Cargo International Forwarding	23.76	0.04	0.05	0.00	0.00	0.00	0.00	0.00	**23.8**
	Spradmex S.A de C.V	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.6**
	Eurospradling S.L.U.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**9.8**
	Spradling UK Ltd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**4.2**
	Spradling GmbH Ltd	2.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**2.2**
	Retail Distributor Calypso Costa Rica S.A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.8**
	Retal Distributor Calypso S.A.S	56.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**56.3**
Total indirect emissions from imported energy		**457.45**	**0.88**	**1.22**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	3,614.4
Total DE and IE from imported energy		**19,603.98**	**20.18**	**40.97**	**63.78**	**15.94**	**0.00**	**0.00**	**0.00**	22.900
Indirect from transportation	Proquinal Costa Rica S.A	9,213.90	91.05	66.65	0.00	0.00	0.00	0.00	0.00	**9,371.61**
	Proquinal S.A.S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**7,160.50**
	Spradling International Inc Alabama	745.41	0,.34	5.67	0.00	0.00	0.00	0.00	0.00	**751.42**
	Spradling International Inc Carolina del Norte	10.93	0.01	0.07	0.00	0.00	0.00	0.00	0.00	**11.0**
	Spradling International Inc Indiana	657.50	0.30	5.68	0.00	0.00	0.00	0.00	0.00	**663.5**
	Spradling International Inc Michigan	214.48	0.06	2.08	0.00	0.00	0.00	0.00	0.00	**216.61**
	Spradling International Inc Tennessee	802.32	0.28	9.26	0.00	0.00	0.00	0.00	0.00	**811.9**
	All Cargo International Forwarding	1,902.81	0.50	14.54	0.00	0.00	0.00	0.00	0.00	**1,917.8**
	Spradmex S.A de C.V	29.03	0.06	0.50	0.00	0.00	0.00	0.00	0.00	**29.6**
	Eurospradling S.L.U.	618.58	0.08	6.24	0.00	0.00	0.00	0.00	0.00	**624.9**
	Spradling UK Ltd	16.85	0.00	0.22	0.00	0.00	0.00	0.00	0.00	**17.1**
	Spradling GmbH Ltd	70.68	0.02	1.02	0.00	0.00	0.00	0.00	0.00	**71.7**
	Retail Distributor Calypso Costa Rica S.A	42.53	0.13	0.64	0.00	0.00	0.00	0.00	0.00	**43.3**
	Retail Distributor Calypso S.A.S	6,033.02	1.15	83.68	0.00	0.00	0.00	0.00	0.00	**6,117.9**
Total for transportation		**20,358.05**	**93.97**	**196.25**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**27,808.8**

Emissions	Site	Tons (t)								
		CO_2	CH_4	N_2O	HFC	HCFC	Other gases	SF_6	NF_3	Total t CO_2e
Indirect from products and services used by the organization	Proquinal Costa Rica S.A	75.55	324.66	0.00	0.00	0.00	0.00	0.00	0.00	**46,084.7**
	Proquinal S.A.S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**52,938.2**
	Spradling International Inc Alabama	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**47.8**
	Spradling International Inc North Carolina	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**40.5**
	Spradling International Inc Indiana	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**173.9**
	Spradling International Inc Michigan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**4.9**
	Spradling International Inc Tennessee	19.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**19.9**
	All Cargo International Forwarding	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**73.4**
	Spradmex S.A de C.V	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.9**
	Eurospradling S.L.U.	5.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**5.7**
	Spradling UK Ltd	24.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**24.6**
	Spradling GmbH Ltd	1.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**1.6**
	Retail Distributor Calypso Costa Rica S.A	0.00	8.91	0.00	0.00	0.00	0.00	0.00	0.00	**8.9**
	Retail Distributor Calypso S.A.S	72,08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**72.1**
Total for products and services used by the organization		199.52	333.57	0.00	0.00	0.00	0.00	0.00	0.00	95,497.1
Total significant indirect emissions		20,557.57	427.54	196.25	0.00	0.00	0.00	0.00	0.00	123,305.9
TOTAL		40,160.94	447.72	237.22	63.78	15.94	0.00	0.00	0.00	146,205

Table 17. 2023 Inventory of Direct GHG Emissions for Spradling® Group by source

Site	Source	Tons (t)								
		CO_2	CH_4	N_2O	HFC	HCFC	Other gases	SF_6	NF_3	Total t CO_2e
Proquinal® Costa Rica	Bunker oil consumption	5,641.63	7.00	13.75	0.00	0.00	0.00	0.00	0.00	**5,662.39**
	Gas oil consumption	1,411.50	1.84	3.60	0.00	0.00	0.00	0.00	0.00	**1,416.94**
	Diesel consumption	6.48	0.01	0.02	0.00	0.00	0.00	0.00	0.00	**6.50**
	LPG consumption (ITAS)	14.10	0.01	0.01	0.00	0.00	0.00	0.00	0.00	**14.11**
	LPG consumption (ITAS)	16.14	0.44	0.01	0.00	0.00	0.00	0.00	0.00	**16.65**
	Vehicle fuel consumption	16.85	0.08	0.37	0.00	0.00	0.00	0.00	0.00	**17.30**
	ITAS	2,603.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**2,603.15**
	Use of lubricants	2.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**2.52**
	Refilling fire extinguishers (CO_2)	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.23**
	Refrigerants	0.00	0.00	0.00	58.12	11.37	0.00	0.00	0.00	**69.49**
	Refrigerant gas leakage in equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
	Consumption of sprays	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
	Acetylene cylinder consumption	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
	Methane cylinder consumption	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
	Calibration of equipment with a combination of gasses	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**

Site	Source	Tons (t)								
		CO_2	CH_4	N_2O	HFC	HCFC	Other gases	SF_6	NF_3	**Total t CO_2e**
Proquinal® Costa Rica	Septic tank	0.00	1.96	0.00	0.00	0.00	0.00	0.00	0.00	**1.96**
	Sheep	0.00	2.13	0.79	0.00	0.00	0.00	0.00	0.00	**2.92**
	Composting	0.00	0.37	0.27	0.00	0.00	0.00	0.00	0.00	**0.64**
	Treatment plant	0.00	0.98	13.03	0.00	0.00	0.00	0.00	0.00	**14.01**
	Wastewater treatment plant sludge	0.00	0.00	1.70	0.00	0.00	0.00	0.00	0.00	**1.70**
Proquinal® Colombia	Cusiana natural gas node USME	6,112.06	3.23	2.96	0.00	0.00	0.00	0.00	0.00	**6,118.25**
	Cusiana natural gas node USME	56.74	0.03	0.03	0.00	0.00	0.00	0.00	0.00	**56.80**
	Acetylene***	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.03**
	B10 diesel**	39.80	0.05	0.10	0.00	0.00	0.00	0.00	0.00	**39.95**
	E4 gasoline**	23.21	0.33	0.32	0.00	0.00	0.00	0.00	0.00	**23.87**
	B10 diesel**	5.43	0.01	0.09	0.00	0.00	0.00	0.00	0.00	**5.52**
	B10 diesel**	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.24**
	Generic LPG	8.71	0.24	0.01	0.00	0.00	0.00	0.00	0.00	**8.96**
	Fire extinguishers	0.58	0.33	0.32	0.00	0.00	0.00	0.00	0.00	**0.58**
	Refrigerants	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00	**0.54**
	Refrigerants – Montreal Protocol	0.00	0.00	0.00	1.76	0.00	0.00	0.00	0.00	**1.76**
	Solvent consumption	1.970,30	0.00	0.00	0.54	0.00	0.00	0.00	0.00	**1,970.30**
	Consumption of plasticizers	194.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**194.55**
	Lubricants in combustion	5.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**5.21**
	Aerosols	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Spradling® International Alabama	Propane consumption	21.44	0.05	0.66	0.00	0.00	0.00	0.00	0.00	**22.15**
	Natural gas consumption	112.06	0.06	0.06	0.00	0.00	0.00	0.00	0.00	**112.17**
	Use of lubricant oil in forklifts	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.05**
	Gasoline consumption in owned vehicle	1.17	0.01	0.01	0.00	0.00	0.00	0.00	0.00	**1.18**
	Use of lubricant oil in vehicle	0.01	0.00	0.00	0.00	0,00	0.00	0.00	0.00	**0.01**
	Consumption of aerosols	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00	**0.56**
	Refilling fire extinguishers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
	Refrigerant leakage in refrigeration equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
	Refrigerant leakage in A/C equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
	Gasoline consumption	6.54	0.02	0.02	0.00	0.00	0.00	0.00	0.00	**6.58**
Spradling® International North Carolina	Propane consumption	9.26	0.02	0.28	0.00	0.00	0.00	0.00	0.00	**9.57**
	Natural gas consumption	19.82	0.01	0.01	0.00	0.00	0.00	0.00	0.00	**19.84**
	Refilling fire extinguishers (CO_2)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
	Use of lubricants	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	**0.00**
	Aerosol consumption	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.09**
	Gasoline consumption	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.50**
	Refrigerant leakage in refrigeration equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
	Refrigerant leakage in A/C equipment	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	**0.20**

Site	Source	Tons (t)								
		CO_2	CH_4	N_2O	HFC	HCFC	Other gases	SF_6	NF_3	**Total t CO_2e**
Spradling® International Indiana	Propane consumption	10.03	0.02	0.31	0.00	0.00	0.00	0.00	0.00	**10.36**
	Natural gas consumption	560.64	0.29	0.29	0.00	0.00	0.00	0.00	0.00	**561.22**
	Lamination process	151.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**151.46**
	Use of lubricant oil in forklifts	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00	**0.02**
	Consumption of aerosols	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
	Refrigerant leakage in refrigeration equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
	Refrigerant leakage in A/C equipment	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00	**0.29**
	Use of lubricant oil in vehicle	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.01**
	Gasoline consumption	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.24**
	Gasoline consumption in owned vehicle	18.09	0.00	0.23	0.00	0.00	0.00	0.00	0.00	**18.32**
Spradling® International Michigan	Refrigerant leakage in refrigeration equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
	Natural gas consumption	9.11	0.00	0,01	0.00	0.00	0.00	0.00	0.00	**9.12**
	Gasoline consumption	1.32	0.00	0.00	0.09	0.00	0.00	0.00	0.00	**1.32**
Spradling® International Tennessee	Propane consumption	10.46	0.02	0.32	0.00	0.00	0.00	0.00	0.00	**10.80**
	Natural gas consumption	53.57	0.03	0.03	0.00	0.00	0.00	0.00	0.00	**53.63**
	Use of lubricant oil in forklifts	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.06**
	Refilling fire extinguishers (CO_2)	0.00	0.01	0,01	0.00	0.00	0.00	0.00	0.00	**0.00**
	Gasoline consumption	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**1.05**
	Refrigerant leakage in water dispenser	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
	Refrigerant leakage in refrigeration equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
	Refrigerant leakage in A/C equipment	0.00	0.00	0.00	0.12	0.22	0.00	0.00	0.00	**0.00**
ACIF	Propane consumption	8.22	0.02	0.25	0.00	0.00	0.00	0.00	0.00	**8.49**
	Use of lubricant oil in forklifts	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.01**
	Refrigerant leakage in refrigerators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
	Refilling fire extinguishers	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	**0.00**
Spradmex	Gasoline consumption in rented vehicle	0.12	0.02	0.31	0.00	0.00	0.00	0.00	0.00	**10.12**
	Refrigerant leakage in refrigeration equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
	Aerosol consumption	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
	Refilling fire extinguishers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**

Site	Source	Tons (t)								
		CO_2	CH_4	N_2O	HFC	HCFC	Other gases	SF_6	NF_3	**Total t CO_2e**
Eurospradling	Diesel consumption	0.21	0.02	0.31	0.00	0.00	0.00	0.00	0.00	**0.21**
	Gasoline consumption	5.11	0.02	0.01	0.00	0.00	0.00	0.00	0.00	**5.14**
	Use of lubricant oil in vehicle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
	Refilling fire extinguishers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
	Refilling AC refrigerants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
	Refrigerant leakage in refrigeration equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Spradling® UK	Refrigerant leakage in refrigeration equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
	Refilling fire extinguishers (CO_2)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Spradling® GmbH	Diesel consumption	14.09	0.00	0.18	0.00	0.00	0.00	0.00	0.00	**14,.27**
	Refrigerant leakage in refrigeration equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
	Use of lubricant oil in vehicles	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.02**
	Refrigerant leakage in vehicles	0.02	0.00	0.00	0.32	0.00	0.00	0.00	0.00	**0.32**
Calypso® Costa Rica	Diesel consumption from vehicles	1.82	0.00	0.03	0.00	0.00	0.00	0.00	0.00	**1.85**
	Use of lubricant oil in vehicles	0.01	0.00	0.03	0.00	0.00	0.00	0.00	0.00	**0.01**
	Fugas de gas refrigerante en vehículos	0.00	0.00	0.18	0.21	0.00	0.00	0.00	0.00	**0.21**
	Refrigerant leakage in refrigeration equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
	Refilling fire extinguishers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Calypso® Colombia	Aerosol consumption	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
	Refilling fire extinguishers	0.01	0.00	0.00	0.00	4.35	0.00	0.00	0.00	**4.36**
	Refrigerant leakage in A/C equipment	0.01	0.00	0.00	1.55	0.00	0.00	0.00	0.00	**1.55**
	Refrigerant leakage in refrigeration equipment	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	**0.02**
Total Direct Emissions		19,145.93	19.31	39.75	55.26	15.94	0.00	0.00	0.00	19.284,7

Table 18. 2023 Inventory of Direct GHG Emissions from Imported Energy for Spradling® Group

Emissions	Site	Tons (t)								
		CO_2	CH_4	N_2O	HFC	HCFC	Other gases	SF_6	NF_3	**Total t CO_2e**
Indirect from Imported Energy (IE)	Proquinal Costa Rica S.A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**972.91**
	Proquinal S.A.S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**2,166.56**
	Spradling International Inc Alabama	92.16	0.18	0.00	0.00	0.00	0.00	0.00	0.00	**92.60**
	Spradling International Inc North Carolina	110.07	0.23	0.00	0.00	0.00	0.00	0.00	0.00	**110.64**

Emissions	Site	Tons (t)								
		CO_2	CH_4	N_2O	HFC	HCFC	Other gases	SF_6	NF_3	**Total t CO_2e**
Indirect from Imported Energy (IE)	Spradling International Inc Indiana	111.58	0.27	0.37	0.00	0.00	0.00	0.00	0.00	**112.22**
	Spradling International Inc Michigan	19.93	0.05	0.07	0.00	0.00	0.00	0.00	0.00	**20.06**
	Spradling International Inc Tennessee	41.19	0.10	0.14	0.00	0.00	0.00	0.00	0.00	**41.74**
	All Cargo International Forwarding	23.76	0.04	0.5	0.00	0.00	0.00	0.00	0.00	**23.84**
	Spradmex S.A de C.V	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.60**
	Eurospradling S.L.U.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**9.77**
	Spradling UK Ltd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**4.20**
	Spradling GmbH Ltd	2.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**2.16**
	Retail Distributor Calypso Costa Rica S.A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.81**
	Retail Distributor Calypso S.A.S	56.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**56.31**
Total indirect emissions from imported energy		**457.45**	**0.88**	**1.22**	**63.78**	**15.94**	**0.00**	**0.00**	**0.00**	3,614.40

Table 19. 2023 Inventory of Direct and Indirect GHG Emissions from Imported Energy per Site for Spradling® Group

Emissions	Site	Tons (t)								
		CO_2	CH_4	N_2O	HFC	HCFC	Other gases	SF_6	NF_3	**Total t CO_2e**
Direct (DE)	Proquinal Costa Rica S.A	9,712.60	14.82	33.55	58.12	11.37	0.00	0.00	0.00	**9,830.5**
	Proquinal S.A.S	8,416.84	3.90	3.50	2.31	0.00	0.00	0.00	0.00	**8,426.5**
	Spradling International Inc Alabama	141.27	0.13	0.74	0.56	0.00	0.00	0.00	0.00	**142.7**
	Spradling International Inc North Carolina	29.58	0.03	0.30	0.29	0.00	0.00	0.00	0.00	**30.2**
	Spradling International Inc Indiana	740.48	0.32	0.83	0.29	0.00	0.00	0.00	0.00	**741.9**
	Spradling International Inc Michigan	10.43	0.01	0,01	0.00	0.00	0.00	0.00	0.00	**10.4**
	Spradling International Inc Tennessee	65.12	0.05	0.35	0.12	0.22	0.00	0.00	0.00	**65.9**
	All Cargo International Forwarding	8.23	0.02	0.25	0.00	0.00	0.00	0.00	0.00	**8.5**
	Spradmex S.A de C.V	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.1**
	Eurospradling S.L.U.	5.32	0.02	0.02	0.00	0.00	0.00	0.00	0.00	**5.4**
	Spradling UK Ltd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.0**
	Spradling GmbH Ltd	14.10	0.00	0.18	0.32	0.00	0.00	0.00	0.00	**14.6**
	Retail Distributor Calypso Costa Rica S.A	1.83	0.00	0.03	0.21	0.00	0.00	0.00	0.00	**2.1**
	Retail Distributor Calypso S.A.S	0.01	0.00	0.00	1.56	4.35	0.00	0.00	0.00	**5.9**
Total direct emissions		**19,145.93**	**19.31**	**39.75**	**63.78**	**15.94**	**0.00**	**0.00**	**0.00**	19,284.7

Emissions	Site	Tons (t)								
		CO_2	CH_4	N_2O	HFC	HCFC	Other gases	SF_6	NF_3	Total t CO_2e
Indirect from Imported Energy (IE)	Proquinal Costa Rica S.A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**972.9**
	Proquinal S.A.S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**2,166.6**
	Spradling International Inc Alabama	92.16	0.18	0.25	0.00	0.00	0.00	0.00	0.00	**92.6**
	Spradling International Inc North Carolina	110.07	0.23	0.34	0.29	0.00	0.00	0.00	0.00	**110.6**
	Spradling International Inc Indiana	111.8	0.27	0.37	0.29	0.00	0.00	0.00	0.00	**112.2**
	Spradling International Inc Michigan	19.93	0.05	0.07	0.00	0.00	0.00	0.00	0.00	**20.1**
	Spradling International Inc Tennessee	41.49	0.10	0.14	0.00	0.00	0.00	0.00	0.00	**41.7**
	All Cargo International Forwarding	23.76	0.04	0.05	0.00	0.00	0.00	0.00	0.00	**23.8**
	Spradmex S.A de C.V	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.6**
	Eurospradling S.L.U.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**9.8**
	Spradling UK Ltd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**4.2**
	Spradling GmbH Ltd	2.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**2.2**
	Retail Distributor Calypso Costa Rica S.A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.8**
	Retail Distributor Calypso S.A.S	56.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**56.3**
Total indirect emissions from imported energy		457.45	0.88	1.22	0.00	0.00	0.00	0.00	0.00	3,614.4
Total DE and IE from imported energy		19,603.98	20.18	40.97	63.78	15.94	0.00	0.00	0.00	22.900

13 BIOGENIC CO_2 Emissions

Anthropogenic biogenic emissions

Anthropogenic biogenic GHG emissions result from human activities, such as biomass combustion and anaerobic and aerobic decomposition of biomass and organic matter in soil. CO_2 emissions from anthropogenic biogenic sources must be quantified and reported separately from other anthropogenic emissions. However, other GHG emissions of biogenic origin, such as CH_4 and N_2O, should be quantified and reported as anthropogenic emissions.

Consumption of biofuels in Colombia

In Colombia, gasoline is a blend that includes biofuels. The biofuels used in the mixture are bioethanol and biodiesel, which are added to gasoline and diesel, respectively. The emission factor for E4 gasoline is calculated based on a composition of 96% "motor gasoline" and 4% "anhydrous ethanol," with CO_2 emissions from the biofuel component being excluded. Table 20 presents the emissions associated with biofuel consumption, which total 4.84 metric tons of CO_2e.

Table 20. Biogenic anthropogenic emissions for the use of biofuels

Site	Emissions		Identified source	t CO_2e
	Type	Category		
Proquinal Colombia	Biogenic anthropogenic	Direct-Mobile Combustion	Biofuel blend in B10 Diesel** – Fixed source	3.00
			Biofuel blend in B10 Diesel** – Mobile source	0.43
			Mezcla de biocombustible en Gasolina E4* - Fuentes móviles	0.65
Calypso Colombia	Biogénicas antropogénicas	Indirect GHG emissions from transportation	Gasoline consumption	0.77
Total biogenic anthropogenic emissions				**4.84**

14. GHG **removals**

The organization does not quantify removals, as it does not include units or processes that remove GHGs within its scope.

15. INTENDED USER AND LEVEL **of assurance**

This report, along with all supporting information, is available to management and staff at Spradling® Group, in order to facilitate actions ensuring the proper functioning of the GHG management system and thus achieve and maintain Carbon Neutrality.

Additionally, the intended user includes the accredited third-party verifier.

Regarding the materiality threshold for errors, Spradling® Group applies a 5% materiality threshold for direct GHG emissions and removals, as well as for indirect GHG emissions from imported energy and the total inventory. A 10% threshold is applied to indirect GHG emissions from transportation, products used by the organization related to the use of the organization's products, and other sources. Accordingly, the inventory, report, and declaration of this inventory will be validated through both internal and external audits, aiming for an acceptable level of assurance.

16. QUANTIFIED INDIRECT GHG **emissions**

The indirect emissions from imported energy and significant indirect emissions included within Spradling® Group's scope are as follows:

Table 21. Quantified Indirect Emissions Proquinal® Costa Rica S.A

Source of Emission	Emission Type	Generating Activity
Electrical energy	Indirect from imported energy	Electricity consumption for industrial processes and administrative offices, measured by a meter

Source of Emission	Emission Type	Generating Activity
Raw materials	Significant indirect emission from purchased goods and services.	Manufacturing of PVC, solvents, plasticizers, yarn, paper, and filler materials
Fuels	Significant indirect emission from purchased goods and services.	Extraction of petroleum, energy production, and manufacturing and transportation of bunker fuel, gas oil, diesel, LPG, and gasolines
Air transportation of raw materials	Significant indirect emission from upstream transportation.	Air transportation of raw materials essential for production
Maritime transportation of raw materials	Significant indirect emission from upstream transportation.	Maritime transportation of raw materials essential for production
Ground transportation of raw materials	Significant indirect emission from upstream transportation.	Ground transportation of raw materials essential for production
Associate commuting	Significant indirect emission from transportation.	Associate transportation using public or private transport
Maritime transportation of product	Significant indirect emission from downstream transportation.	Maritime transportation of finished product
Local ground transportation of product	Significant indirect emission from downstream transportation.	Local ground transportation of finished product
International ground transportation of product	Significant indirect emission from downstream transportation.	International ground transportation of finished product
Transportation of waste	Significant indirect emission from downstream transportation.	Land transportation of waste
Recycling waste	Significant indirect emision from waste generated in operations	Recycling of waste generated from operations
Co-processing of waste	Significant indirect emisión from waste generated in operations	Co-processing of waste generated from operations
Waste treatment in landfills	Significant indirect emisión from waste generated in operations	Waste treatment in landfills

Table 22. Quantified Indirect Emissions Proquinal® S.A.S

Source of Emission	Emission Type	Generating Activity
Electricity consumption	Indirect from imported energy	Electricity consumption for industrial processes and administrative offices
Transportation of raw materials	Significant indirect emission from upstream transportation	Inbound logistics operations
Transportation of finished product	Significant indirect emission from downstream transportation	Outbound logistics operations

Source of Emission	Emission Type	Generating Activity
Associate commuting	Significant indirect emission from transportation	Transportation of employees to each site
Business trips	Significant indirect emission from transportation	Flights and ground transportation for business trips
Purchase of raw materials	Significant indirect emission from purchased goods and services.	Purchase of goods and services
Fuels	Significant indirect emission from purchased goods and services.	Extraction of fuels for energy production and use in fixed and mobile sources
Waste management	Significant indirect emission from waste generated in operations	Waste generated from operations: recyclable, hazardous, and ordinary

Table 23. Quantified indirect emissions in business units

Source of Emission	Emission Type	Generating Activity
Electricity consumption	Indirect from imported energy	Electricity consumption for industrial processes and administrative offices
Transportation of finished product	Significant indirect emission from downstream transportation	Transportation of product
Business trips	Significant indirect emission from transportation	Air, maritime, and ground transportation
Waste management	Significant indirect emisión from waste generated in operations	Waste generated in operations, both recyclable and non-recyclable.

By performing the proper quantification of all indirect emissions from imported energy and significant GHG emissions within the established scope, the total inventory of emissions for the 2023 period is achieved, as shown in the following tables.

Table 24. 2023 Inventory of Indirect Emissions for Imported Energy

Emissions	Site	Tons (t)								
		CO_2	CH_4	N_2O	HFC	HCFC	Other gases	SF_6	NF_3	Total t CO_2e
Indirect from Imported Energy (IE)	Proquinal Costa Rica S.A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**972.91**
	Proquinal S.A.S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**2,166.56**
	Spradling International Inc Alabama	92.16	0.18	0.25	0.00	0.00	0.00	0.00	0.00	**92.60**
	Spradling International Inc North Carolina	110.07	0.23	0.34	0.00	0.00	0.00	0.00	0.00	**110.64**
	Spradling International Inc Indiana	111.58	0.27	0.37	0.00	0.00	0.00	0.00	0.00	**112.22**
	Spradling International Inc Michigan	19.93	0.05	0.07	0.00	0.00	0.00	0.00	0.00	**20.06**

Emissions	Site	Tons (t)								
		CO_2	CH_4	N_2O	HFC	HCFC	Other gases	SF_6	NF_3	Total t CO_2e
Indirect from Imported Energy (IE)	Spradling International Inc Tennessee	41,19	0,10	0,14	0,00	0,00	0,00	0,00	0,00	**41,74**
	All Cargo International Forwarding	23,76	0,04	0,5	0,00	0,00	0,00	0,00	0,00	**23,84**
	Spradmex S.A de C.V	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	**0,60**
	Eurospradling S.L.U.	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	**9,77**
	Spradling UK Ltd	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	**4,20**
	Spradling GmbH Ltd	2,16	0,00	0,00	0,00	0,00	0,00	0,00	0,00	**2,16**
	Retail Distributor Calypso Costa Rica S.A	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	**0,81**
	Retail Distributor Calypso S.A.S	56,31	0,00	0,00	1,56	4,35	0,00	0,00	0,00	**56,31**
Total indirect emissions from imported energy		**457,45**	**0,88**	**1,22**	**63,78**	**15,94**	**0,00**	**0,00**	**0,00**	**3.614,40**

Table 25. 2023 Inventory of Significant Indirect Emissions

Emissions	Site	Tons (t)								
		CO_2	CH_4	N_2O	HFC	HCFC	Other gases	SF_6	NF_3	Total t CO_2e
lIndirect from transportation	Proquinal Costa Rica S.A	9.213,90	91.05	66.65	0.00	0.00	0.00	0,00	0.00	**9,371.61**
	Proquinal S.A.S	0.00	0.00	0.00	0.00	0.00	0.00	0,00	0.00	**7,160.50**
	Spradling International Inc Alabama	745.41	0.34	5.67	0.00	0.00	0.00	0,00	0.00	**751.42**
	Spradling International Inc North Carolina	10.93	0.01	0.07	0.00	0.00	0.00	0,00	0.00	**11.01**
	Spradling International Inc Indiana	657.50	0.30	5.68	0.00	0.00	0.00	0,00	0.00	**663.48**
	Spradling International Inc Michigan	214.48	0.06	2.08	0.00	0.00	0.00	0.00	0,00	**216.61**
	Spradling International Inc Tennessee	802.32	0.28	9.26	0.00	0.00	0.00	0.00	0.00	**811.86**
	All Cargo International Forwarding	1.902,81	0.50	14.54	0.00	0.00	0.00	0.00	0.00	**1,917.84**
	Spradmex S.A de C.V	29.03	0.06	0.50	0.00	0.00	0.00	0.00	0.00	**29.59**
	Eurospradling S.L.U.	618.58	0.08	6.24	0.00	0.00	0.00	0.00	0.00	**624.90**
	Spradling UK Ltd	16.85	0.00	0.22	0.00	0.00	0.00	0.00	0.00	**17.08**
	Spradling GmbH Ltd	70.68	0.02	1.02	0.00	0.00	0.00	0.00	0.00	**71.72**
	Retail Distributor Calypso Costa Rica S.A	42.53	0.13	0.64	0.21	0.00	0.00	0.00	0.00	**43.29**
	Retail Distributor Calypso S.A.S	6.033,02	1.15	83.68	0.00	0.00	0.00	0.00	0.00	**6,117.85**
Total from transportation		**20,358.05**	**93.97**	**126.95**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**27,808.76**
Indirect from products and services used by the organization	Proquinal Costa Rica S.A	75.55	324.66	0.00	0.00	0.00	0.00	0.00	0.00	**46,084.75**
	Proquinal S.A.S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**52,938.79**
	Spradling International Inc Alabama	92.16	0.18	0.25	0.00	0.00	0.00	0.00	0.00	**47.78**
	Spradling International Inc North Carolina	110.07	0.23	0.34	0.29	0.00	0.00	0.00	0.00	**40.46**
	Spradling International Inc Indiana	111.8	0.27	0.37	0.29	0.00	0.00	0.00	0.00	**173.87**
	Spradling International Inc Michigan	19.93	0.05	0.07	0.00	0.00	0.00	0.00	0.00	**4.86**

Emissions	Site	Tons (t)								
		CO_2	CH_4	N_2O	HFC	HCFC	Other gases	SF_6	NF_3	Total t CO_2e
Indirect from products and services used by the organization	Spradling International Inc Tennessee	19.93	0.10	0.14	0.00	0,00	0.00	0.00	0.00	**19.93**
	All Cargo International Forwarding	23.76	0.04	0.05	0.00	0,00	0.00	0.00	0.00	**73.41**
	Spradmex S.A de C.V	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.90**
	Eurospradling S.L.U.	5.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**5.71**
	Spradling UK Ltd	24.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**24.63**
	Spradling GmbH Ltd	1.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**1.61**
	Retail Distributor Calypso Costa Rica S.A	0.00	8.91	0.00	0.00	0.00	0.00	0.00	0.00	**8.91**
	Retail Distributor Calypso S.A.S	72.08	0.00	0.00	1.56	4.35	0.00	0.00	0.00	**72.08**
Total from products and services used by the organization		199.52	333.57	1.22	0.00	0.00	0.00	0.00	0.00	95,497.09
Total significant indirect emissions		20,557.57	427.54	196.25	63.78	15.94	0.00	0.00	0.00	123,305.85

17 SELECTED BASE YEAR AND REVIEW OF THE BASE YEAR inventory

The organization has selected 2023 as the historical base year, as it is representative of its operations and there is availability of verifiable data on GHG emissions.

The organization will apply a recalculation of its base year or subsequent GHG inventories when any of the following conditions occur:

- Changes in operational boundaries, ownership, or control of GHG sources transferred from or to outside the organization's boundaries. This condition excludes organic changes due to the organization's growth or contraction of its processes or activities.
- Changes in emission calculation methodologies or improvements in the accuracy of emission factors or activity data that result in a significant change (increase or decrease) in emissions, with a materiality threshold of 5% or higher.
- Updates to reference standards.
- Identification of significant errors or accumulation of errors that have relevant consequences on GHG emissions (increase or decrease), with a materiality threshold of 5% or higher.

The aforementioned conditions may be identified by the inventory manager during its consolidation, during pre-verification reviews, in internal verification, or in external verifications.

If verifiable data is unavailable for recalculating the base year, the organization may change the base year to one where such data is available.

18 DESCRIPTION OF QUANTIFICATION methodologies

The applied methodology is based on identifying the previously described GHG emission sources, quantifying them, and converting them into CO_2 equivalent emissions through the application of emission factors and global warming potentials, following recognized methodologies.

For emission factors, the organization selected those provided by the official publications of the United States Environmental Protection Agency (EPA), the UK Department for Environment, Food & Rural Affairs (DEFRA), the National Meteorological Institute of Costa Rica (IMN) - 14th edition 2024, ECOINVENT, and local emission factors. Additionally, the emission factor guide from the Intergovernmental Panel on Climate Change (IPCC) was consulted. For applicable sources, the IPCC methodology and corresponding emission factors were used.

Spradling® Group presents its GHG inventories using a single unit of measurement: tons of carbon dioxide equivalent (t CO_2e). For GHG emissions other than CO_2, the organization applies the Global Warming Potential (GWP) factor, where CO_2 has a GWP of 1. This conversion allows all emissions to be normalized and summed appropriately.

The calculation methodology follows these steps:

STEP 1

Quantity of Source × Emission Factor = Source Subtotal

STEP 2

Source subtotal × GWP = CO_2e

The GHG Inventory Requirements Manual of Spradling® Group establishes the methodology the organization follows to generate, collect, and manage data from the identified GHG emission sources within its carbon neutrality scope.

This ensures that the inventory data is properly recorded in its matrices, incorporating appropriate quantification methodologies, emission factors, and global warming potentials. The result is an annual GHG inventory including direct emissions, indirect emissions from imported energy, and significant Indirect emissions, all measured in tons of CO_2e.

19 EMISSION FACTOR references

The emission factors used are those provided by the EPA, DEFRA, the National Meteorological Institute of Costa Rica (14th Edition, 2024), ECOINVENT, and local emission factors, depending on their availability in each country. If a specific emission factor is not available in these sources, direct references from the IPCC, stoichiometric calculations, and scientific literature and bibliographic sources are used.

20 IMPACT OF uncertainty

Evaluating uncertainties in GHG inventories is essential as it provides a comprehensive understanding of the inventory. It also helps determine strategies for reducing uncertainty regarding calculation methods and measurement approaches, which is crucial to improving the accuracy of emissions data.

To quantify uncertainty, two tools from the GHG Protocol are used. Both tools consider the uncertainty associated with activity data provided by the organization and the emission factors applied. For direct emissions uncertainty, the GHG Protocol tool presents uncertainty as a percentage margin, defining a variation percentage relative to the reported mean value. Once the uncertainty range is established, the tool applies the error propagation method to determine the total inventory uncertainty.

The GHG Protocol's uncertainty calculation tool is based on the first-order error propagation method. However, this method is only valid under the following conditions:

- Errors in each parameter must follow a normal (Gaussian) distribution,
- There must be no bias in the expert function (i.e., the estimated value must correspond to the mean value),
- Estimated parameters must be uncorrelated (i.e., all parameters must be completely independent), and/or

- Individual parameter uncertainties must be below 60% of the mean value.

The uncertainty analysis for direct emissions and indirect emissions from imported energy is presented in Tables 27 and 28, respectively. For direct emissions, the total inventory uncertainty is ±6.9%, meaning that due to uncertainties associated with each source and location, the emissions range between 17,955.44 tCO_2e and 20,613.96 tCO_2e.

For indirect emissions from imported energy, the total inventory uncertainty is ±7.0%, implying that emissions fluctuate between 3,360.69 tCO_2e and 3,868.11 tCO_2e due to uncertainties linked to each source and site.

Table 26. Uncertainty of Direct Emissions Spradling® Group

Site	Direct	Uncertainty ±
	Total t CO_2e	%
Proquinal Costa Rica S.A	9,830.46	+/- 4.4%
Proquinal S.A.S	8,426.54	+/- 14.9%
Spradling International Inc Alabama	142.70	+/- 7.9%
Spradling International Inc North Carolina	30.20	+/- 7.2%
Spradling International Inc Indiana	741.91	+/- 7.7%
Spradling International Inc Michigan	10.45	+/- 8.7%
Spradling International Inc Tennessee	65.87	+/- 8.2%
All Cargo International Forwarding	8.50	+/- 9.9%
Spradmex S.A de C.V	0.12	+/- 9.9%
Eurospradling S.L.U.	5.35	+/- 9.5%
Spradling UK Ltd	0.00	+/- 7.0%
Spradling GmbH Ltd	14.60	+/-9.7%
Retail distributor Calypso Costa Rica S.A	2.07	+/- 8.9%
Retail distributor Calypso S.A.S	5.92	+/- 5.4%
Total t CO_2e	19,282.70	+/- 6.9%

Table 27. Uncertainty of Indirect Emissions from Imported Energy Spradling® Group

Site	Direct	Uncertainty ±
	Total t CO_2e	%
Proquinal Costa Rica S.A	972.91	+/- 21.6%
Proquinal S.A.S	2,166.56	+/- 6.5%
Spradling International Inc Alabama	92.60	+/- 9.9%
Spradling International Inc North Carolina	110.64	+/- 9.9%
Spradling International Inc Indiana	112.22	+/- 9.9%
Spradling International Inc Michigan	20.06	+/- 9.9%
Spradling International Inc Tennessee	41.74	+/- 9.9%
All Cargo International Forwarding	23.84	+/- 9.9%
Spradmex S.A de C.V	0.60	+/- 9.9%
Eurospradling S.L.U.	9.77	+/- 9.9%
Spradling UK Ltd	4.20	+/- 9.9%
Spradling GmbH Ltd	2.16	+/-9.9%
Retail distributor Calypso Costa Rica S.A	0.81	+/- 8.9%
Retail distributor Calypso S.A.S	56.31	+/- 8.2%
Total t CO_2e	3,614.40	+/- 7.0%

To assess the uncertainty of indirect emissions, the GHG Protocol tool is used.

Unlike the previously mentioned tool, this one does not assign a percentage variation. Instead, it employs a qualitative evaluation based on five information quality indices: reliability, completeness, temporal correlation, geographical correlation, and further technological correlation. Each of these indexes is assigned a numerical equivalence, and using the Taylor series expansion, the tool then calculates the error interval within which the total result falls, at a 95% accuracy interval.

The tool is based on pedigree matrix methodology for uncertainty estimation. It includes specific instructions for each step, with descriptions provided in the second row of the spreadsheet.

The required user inputs include a list of materials or activities for which activity data is available, as well as the emission factors. Each activity or product is classified into a process type. The file is configured to allow the evaluation of four alternative scenarios, each with the same categories and emission factors but with different activity data. For this specific case, Spradling® Group only has one scenario of collected activity data.

The pedigree matrix is applied to each parameter used in emission calculations. In this case, there are two parameters: activity data and the emission factor associated with the activity. Each quality indicator is assigned a value from 1 to 5, where 1 represents the highest quality and 5 the lowest quality (See Figure).

Indicator score	**1**	**2**	**3**	**4**	**5** (default)
Reliability	Verified[3] data based on measurements[4]	Verified data partly based on assumptions or non-verified data based on measurements	Non-verified data partly based on qualified estimates	Qualified estimate (e.g. by industrial expert)	Non-qualified estimate
Completeness	Representative data from all sites relevant for the market considered, over an adequate period to even out normal fluctuations	Representative data from >50% of the sites relevant for the market considered, over and adequate period to even out normal fluctuations	Representative data from only some sites (<<50%) relevant for the market considered or >50% of sites but from shorter periods	Representative data from only one site relevant for the market considered or some sites but from shorter periods	Representativeness unknown or data from a small number of sites and from shorter periods
Temporal correlation	Less than 3 yeard of difference to the time period of the dataset	Less than 6 yeard of difference to the time period of the dataset	Less than 10 yeard of difference to the time period of the dataset	Less than 15 yeard of difference to the time period of the dataset	Age of data uknown or more than 15 years of difference to teh time period of the dataset
Geographical correlation	Data from area under study	Average data from larger area in wirch the area under study is included	Data from area with similar production conditions	Data from area with slightly similar production conditions	Data from unknown or distinctly different area (North America instead of Middle East, OECD-Europe instead of Russia)
Further technological correlation	Data from enterprises, processes and materials under study	Data from processes and materials under study (i.e. identical technology) but from diffrent enterprises	Data from processes and materials under study but from different techonology	Data on related processes or materials	Data on related processes on laboratoy scale or from different technology

The formulas tabulate a quantitative measure of uncertainty based on user input.

The uncertainty of Spradling® Group's indirect emissions by category is presented in Table 29. For indirect emissions from transportation, the emissions range between 20.002.64 tCO_2e and 38,661.25 tCO_2e. For indirect emissions from products and services used by the organization, the emissions range between 90,543.42 tCO_2e and 100,695.41 tCO_2e.

Table 28. Uncertainty in Indirect Emissions per Category

Emissions	Total t CO_2e	Confidence interval	
		-	+
Indirect from transportation	27.808,76	7806.12	10852.49
Indirect from products and services used by the organization	95.484,59	4941.72	5210.82

21 REDUCTION actions

Energy management improvements were implemented at three of the organization's sites: At Proquinal® Costa Rica, adjustments were made to lighting control schedules, resulting in an annual savings of 30,865.37 kWh, equivalent to 2.71 tons of CO_2e. At Proquinal® S.A.S in Colombia, motors were replaced with high-efficiency models, technology change in blade number 1 of Branch 2, a switch was made from a Direct Current Motor to an Alternating Current Motor IEC 3, identification and repairing of compressed air leaks, and improvements in the chiller process. These projects generated an energy savings of 272,900 kWh, equivalent to 47.16 tons of CO_2e.

Additionally, at Eurospradling, solar panels were installed, resulting in a savings of 14,895 kWh, equivalent to 3.87 tons of CO_2e.

22 EMISSION offsetting

Since Spradling® Group does not own land to remove emissions, it has established a contract for the purchase of carbon certificates for compensation.

23 RESULTS

Table 29. Organizational Carbon Neutral Balance and Statement for Spradling® Group

Emissions 2023	Reduction 2023	Compensation 2023
146.205	53,74	22.900

The organization's statement on GHG is issued by general management, and it declares that the information contained in the GHG report is correct and impartial, committed to complying with the established reduction and compensation management plan over time, and developed in accordance with the INTE/ISO 14064-1 standard. This GHG report has been prepared in accordance with the INTE/ISO 14064-1 standard and the Guide for the Verification and Certification of Carbon Neutrality by Icontec.

24. VERIFICATION OF THE GHG report

This report is presented for a carbon neutrality verification process during the year 2023 before Icontec, with a reasonable leve lof assurance for the GHG emissions inventory, with a materiality of 5% in direct GHG emissions, in indirect GHG emissions from imported energy, and total inventory. A 10% materiality in indirect GHG emissions for: transportation; products used by the organization associated with the use of the organization's products; and other sources.

25. GLOBAL WARMING potential (GWP)

The values of Global Warming Potential (GWP) are taken from the sixth report of the IPCC (AR6). GWP values from the fifth report are only used if the emission factor is not available in the version of the sixth report.

Table 30. Global Warming Potential (GWP)

GWP	Valor	Fuente de emisión
GWP-CO_2	1	IPCC (AR6)
GWP-CH_4	27,9	IPCC (AR6)
GWP-N_2O	273	IPCC (AR6)
GWP (R 134A)	1530	IPCC (AR6)
GWP (R-22)	1960	IPCC (AR6)
GWP – Propano	0.02	IPCC (AR6)
GWP - Butano	0.006	IPCC (AR6)

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