SUSTAINABILITY

REPORT

Year 2025

PLANT OF
SAN GIORGIO DI PIANO (BO)

REAGENS S.p.A.
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Cap. soc. Euro 8.460.000,12 I.V.
Reg. Imprese e C.F.03230820379
R.E.A. n. 275343
P.IVA N° IT00605801208

SUMMARY

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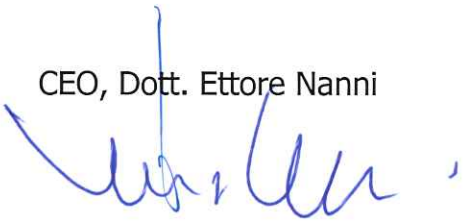
For the Management of Reagens S.p.A.

CEO, Dott. Ettore Nanni



Director, Enrico Crocetti

Director, Dott. Andrea Rambelli

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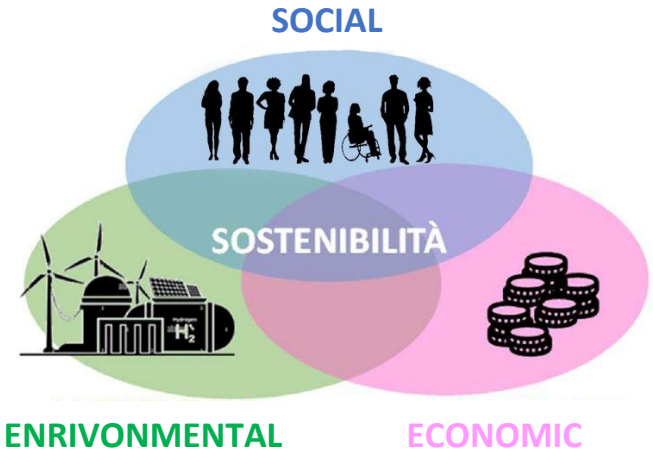
1. INTRODUCTION

Reagens adopts and promotes a policy of sustainable responsibility, pursuing continuous improvement, through research, innovation and investments aimed at meeting the current and future needs of society, in compliance with current regulations in the field of health and safety of workers, environment and the prevention of major accidents.

2. PURPOSE

This document aims to illustrate Reagens's commitment to environmental, economic, and social sustainability. In fact, sustainability is a founding principle of all business processes and an integral part of the Organization.



For Reagens, environmental sustainability means directing investments and technological developments towards reducing the impact on the environment, the use of renewable energy sources, minimizing waste, and sending the waste produced to recovery operations, for the protection and respect of the environment and biodiversity.
Economic sustainability means achieving a balance between economic growth, resource efficiency, and financial stability, ensuring that economic activities can last over time without compromising the well-being of future generations. Social sustainability means actively promoting well-being, equity, justice, and social cohesion to ensure a better future for society and preserving resources and the environment.
Through the three described and closely interconnected aspects – environment, society, and economy – sustainability can be described as the guarantee that the business process is compatible with ecological balance, social well-being, and long-term economic stability.

3. REAGENS IN THE WORLD

The activity of the Reagens S.p.A. plant in San Giorgio di Piano (BO) consists of the production of stabilizers for PVC and additives for other plastics, capable of giving characteristics of workability, stability, and durability to numerous finished products for daily use, improving their appearance and properties.
Production is carried out thanks to different production lines that allow to obtain finished products in both liquid and solid states (powders, tablets, and granules). In addition to the production lines, there are also service systems for the production of compressed air, steam, electricity, and cooling water. The plant is also equipped with emission abatement systems. Rainwater is collected and, after analysis and compliance with the legal limits for discharge into surface water, discharged.
Reagens was founded in 1952 in San Giorgio di Piano, near Bologna. Since its foundation, it has grown steadily with continuous investments, developing new and increasingly sustainable additives for PVC and other polymers. All processes are controlled by automated systems (using DCS – Distributed Control System) that guarantee safety, reproducibility, and, therefore, constant quality.
Over the years, Reagens has expanded its activities and in particular:

- In 1996, Reagens UK and Reagens Iberica were founded;
- In 2002, Reagens USA was founded;
- In 2004, Reagens SpA acquired the stabilizers business of Cognis GmbH, founding Reagens Deutschland;
- In 2013, Reagens Varteco was founded;

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- In 2019, Reagens India was founded.

Reagens S.p.A. is the parent company of the Reagens Group and is also the headquarters and main R&D center of the Reagens Group. It holds management and financial control and the technical activity of plant design, while delegating most of the operational functions to the subsidiaries.

The following is a diagram summarizing the structure of the Reagens Group.

DESCRIPTION	ACTIVITIES
Reagens S.p.A.	Group Leader Production - San Giorgio di Piano (BO) plant Sales of Reagens SpA's and third-parties' products in the global market Intercompany sales
Reagens Deutschland	Production – Loxstedt Plant and Lohne Plant Sales of Reagens Deutschland's and third-parties' products in Central-Eastern and Northern Europe Intercompany sales
Reagens USA	Production – Houston plant (Texas) Sales of Reagens USA's and third-parties' products in North and Central America Intercompany sales
Reagens UK	Sales of Reagens Group's and third-parties' products in the UK and Ireland.
Reagens Iberica	Sales of Reagens Group' and third-parties' products in the Spanish market
Reagens Varteco	Production – San Luis plant (Argentina) Sales of Reagens Varteco and third-parties' products in South America
Reagens India	Production – Dahej plant (Gujarat, India) Sales of Reagens India's, Reagens Group's, and third-parties' products in the Indian sub-continent

4. LEGISLATIVE COMPLIANCE

Reagens is an active part, through the ESPA (European Stabilizer Producers Association) – a subgroup of CEFIC (European Federation of Chemical Industries), in the proposal of the "PVC Voluntary Commitment", a voluntary commitment for the sustainable development of PVC and its components: among the main objectives, the progressive reduction of lead stabilizers in Europe in the 2000s, a process that reached its peak with their total elimination at the end of 2015.

Reagens has implemented an integrated management system for Quality, Environment, and Occupational Health and Safety, certified according to international standards UNI EN ISO 9001:2019 and UNI ISO 45001:2023; it also uses a management system for the Prevention of Major Accidents (SGS-PIR), set up according to the standard UNI 10617. The company also adheres to the "Responsible Care", an international voluntary initiative program aimed at continuous improvement of safety and protection of health and the environment. Starting from January 2009, the General Management has decided to adopt an Organization and Management Model in the field of Health, Safety and Environment, to ensure fairness and transparency in the performance of company activities, to protect the Company, workers, and the expectations of all its stakeholders, as per Legislative Decree 231/01. The effective application of the Organisational Model is verified by the Supervisory Body, a

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qualified collegial body, consisting of two members, with autonomy of initiative and control that interfaces with the Management.
Reagens guarantees full legislative compliance, in compliance with existing standards and with the aim of representing a sustainable reality. Reagens S.p.A. in particular:

- Complies with the provisions of the regulations for the protection of health and safety in the workplace, as required by Legislative Decree 81/08 and all regulations associated with this legislative decree;
- Adopts the measures prescribed according to Legislative Decree 105/15, relating to the control of the danger of major accidents;
- Complies with the environmental requirements set out in Legislative Decree 152/06 and the relevant Integrated Environmental Authorization and applicable BAT (Best Available Techniques);
- Adopts when required by Legislative Decree 231/01 for corporate responsibility.

5. RESPONSIBLE CARE

The particular sensitivity to Health, Safety, and Environment issues is a central reason for Reagens S.p.A.'s policy and is also reflected in the voluntary adoption of the "Responsible Care" programme. This programme represents the most important initiative undertaken by chemistry to respond positively to sustainable development. Responsible Care is a concrete model of Organization and behavior, effective and efficient. It represents the basis on which all other systems, standards, and guidelines are grafted, as it includes all these aspects.

6. SUSTAINABILITY IN REAGENS: ENVIRONMENTAL, ECONOMIC AND SOCIAL

Reagens' sustainability policy involves all employees and is committed to sustainable development by integrating environmental aspects with economic, social, and institutional aspects according to an interdisciplinary approach focused on continuous improvements. Politics sets various objectives and interests that can be, in the present and in the future, in the global interest of society and the environment.

6.1. Economic sustainability

6.1.1. Resource Utilization

Reagens' sustainability policy also applied based on the choice of raw materials, identifying sources with a lower impact for the production of these materials that do not involve damage to the health and dignity of the human person, as in the case of minerals from conflict areas.
This policy must go hand in hand to guarantee economic stability through a policy of continuous improvement, analyzing the potential benefits that our context can provide us.

6.1.2. Future perspectives

The goal for the future, with a view to continuous improvement, is to offer the customer products that are always at a high level of quality, which guarantees economic solidity to the group and, at the same time, a lower consumption of feedstocks non-renewable, without a controlled origin and not belonging to realities where human rights are not respected.

6.2. Environmental sustainability

6.2.1. Raw material

A wide range of raw materials are used for the manufacture of products and for the operation of plants.
The supply of these raw materials takes place through different types of transport.

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With the aim of reducing the use of packaging, for raw materials in liquid form, the company prefers bulk transport by tanker truck and its storage in dedicated tanks in parks equipped with a containment basin. In some cases, the raw materials are received and stored in trays or bins suitable for road transport and stored in asphalted areas protected from bad weather.
Solid-phase raw materials in the solid state (powders) in bulk are delivered to the factory by tankers and stored in silos. This management guarantees a reduction in consumption and quantities of packaging handled. Other raw materials are purchased packaged in bags or large bags on pallets and are generally stored in warehouses.
Since 2010, the company has completely replaced the production of lead-based stabilizers with less polluting substances.
The production yield index is shown below, expressed as the percentage quantity of finished product per unit of raw material consumed in the last 4 years.

KPI	2021	2022	2023	2024
Conversion efficiency index	93%	97%	98%	97%

6.2.2. Power

All the activities carried out in the factory, from the manufacturing of products to office activities, require the use of electrical or thermal energy. Since 2017, a trigeneration system has been installed to guarantee the internal production of electrical and thermal energy, air and cold water. In this way, purchasing electricity from outside occurs only occasionally (only when "green" energy is purchased).
The thermal power plant comprises a smoke tube steam boiler composed of two tube bundles in a single cylindrical body and an endothermic engine with heat recovery from the fumes. The engine produces electrical energy while the exhaust fumes are sent to the boiler's steam generator to produce thermal energy.
The recovery of thermal energy in the engine occurs through lubricating oil cooling water. The recovery of the thermal energy of the fumes is instead carried out by a smoke tube exchanger inserted in the fume circuit exiting the internal combustion engine.
To contain polluting emissions, the new cogeneration group makes use of different technologies: combustion regulation with the Leanox system to limit the formation of NO_x, SCR (Selective Catalyst Reduction) reactor for reducing NO_x and oxidizing catalyst for CO carbon monoxide, unburned hydrocarbons, and ammonia residual.
The average NO_x and CO concentration values of the conveyed emission of the endothermic engine over the last 4 years are shown below, according to .

KPI	2021	2022	2023	2024
NO_x [mg/Nm^3]	57	39,8	29,8	53
CO [mg/Nm^3]	12,6	16,2	7,9	19

The efficiency of the trigeneration system is considerably higher than that of cogeneration thanks to the exploitation of the calorific value of the fuel; the latter is in fact used both as a heating source and as energy to power the absorption cycle for the refrigeration of process fluids.
The electricity and thermal energy consumed are used within the industrial area for activities related to the plant. For practical reasons of grouping the types of use, the quantity is divided into two items: civil use and industrial use. Both are estimated as follows: civil electricity is considered to be that deriving from the consumption of offices and lighting for the entire plant (which corresponds to about 5% of the total), while industrial energy is considered the remaining part; Civil thermal energy is considered to be that deriving from the consumption for heating domestic water and office rooms, canteen and changing rooms, while the remaining part is industrial.
The following table shows the electricity consumption of the last 4 years, divided into

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industrial use and civil use, expressed as a percentage of total consumption and compared to the quantities of finished products.

KPI	2021	2022	2023	2024
Electricity consumption on total finished product [MWh/t]	0,216	0,225	0,215	0,216

The following table shows the thermal energy consumption of the last 4 years, divided into industrial use and civil use, expressed as a percentage of total consumption.

KPI	2021	2022	2023	2024
Thermal energy consumption on total finished product [MWh/t]	0,379	0,400	0,393	0,397

6.2.3. Water resources

Fresh water available for human use is an essential resource for the planet. However, unfortunately, it is limited and is at risk due to various factors such as pollution, overexploitation and climate change. In the company, it is used both for production operations and for civil activities.

The water used for industrial use is taken through artesian wells in the plant area. The water taken from these wells is not used directly for the production processes, but a part is sent to the demineralization plant and a part to the cooling circuit. Demineralized water is used for production processes and the production of steam.

The well water is also used for the fire-fighting water network circuit, for which water consumption is connected to the commissioning of the fire-fighting devices for tests and inspections.

Instead, water for domestic uses, such as canteens or toilets, takes place from the aqueduct.

The following table shows the plant water recirculation index of the last 4 years, calculated as the ratio between the quantity of water recirculated from cooling and condensate recovery and the quantity withdrawn from wells for production use on the quantity of total finished product.

KPI	2021	2022	2023	2024
Factory water recirculation index	97%	97%	98%	98%
Water consumption on total finished product [m^3/t]	1,79	1,49	1,44	1,34

Water is an important element in the company and must be protected. Reagens is committed to reducing water consumption and avoiding potential contamination, respecting the discharge limits into surface water and the sewerage network, as per current national legislation. The increase in the recirculation index is guaranteed by the optimization of production processes, predictive maintenance, and the constant search for increasingly high-performance plant solutions.

6.2.4. Emissions in the atmosphere

Reagens also uses environmentally hazardous chemicals in its production processes. To prevent accidental releases and minimize environmental impacts, mitigation measures are adopted.

There are several atmospheric emission points in the factory, subject to periodic checks to ensure compliance with the concentration limits set by the current authorization act, in compliance with Legislative Decree 152/06. The abatement systems for these emissions are regularly monitored and periodically maintained.

Fugitive emissions, i.e., possible emissions of organic vapors or dust resulting from leaks coming from flanges, pumps, pneumatic transport pipes, or sanitation lines, are avoided and prevented through a maintenance register in which they are reported and operating anomalies promptly resolved. Furthermore, periodic checks are carried out on elements considered critical for the environment, and scheduled maintenance is carried out in compliance with the safety management system.

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6.2.5. Waste and ADR transport

The management of waste produced in the factory complies with current national legislation. All categories of waste are collected, stored in authorized temporary deposits and disposed of separately. To reduce waste, non-compliant products are reviewed, and, if they guarantee compliance with quality standards, they are reinserted into the production cycle, otherwise, they are sent for disposal.

Most packaging, such as wooden pallets, tanks, PE, and iron drums, are not disposed of but sent for recovery and/or reuse.

Below is the table relating to the quantity of waste produced by the company in the last 4 years, expressed as the ratio of the quantity of total finished product.

KPI	2021	2022	2023	2024
Quantity of waste on total finished product [t/t]	0,062	0,088	0,062	0,064

The company also uses an internal ADR consultant to manage the transport of dangerous goods by road since various dangerous wastes are subject to ADR legislation.

6.2.6. Carbon footprint

The *carbon footprint* is an indicator used to measure the amount of CO_2 released by a company. The most used classification to measure the carbon footprint is the one proposed by the Greenhouse Gas (GHG) protocol, created in 1997 by an initiative of the World Resources Institute (WRI). The Greenhouse Gas Protocol identifies the emissions of climate-changing greenhouse gases associated with company activities, classifies them as direct or indirect and determines the scope in which they must be accounted for.

Reagens evaluated the "Scope 1" emissions generated directly by the company, which include the following contributions: fossil fuels used for heating buildings, combustion of natural gas in owned properties, and direct use of fuel from generators.

Below is the table relating to kg of CO_2 produced per kg of total finished product for the last 4 years.

KPI	2021	2022	2023	2024
CO2 produced on total finished product [kg/kg]	0,142	0,151	0,151	0,144

6.2.7. Biodiversity

The factory occupies an area of approximately 107,727 m^2 and is located in the municipality of San Giorgio di Piano, approximately 500 m from the town center, separated from the Bologna – Padova railway line, adjacent to the west side of the factory.

Area	m^2
Sealed ground surface	44.323
Built area	20.552
Green space	161.885

The surrounding area is mainly characterized by anthropic activities; the urban/residential fabric, production facilities (including the Reagens factory), and agriculture prevail. The plant is located outside the areas of naturalistic value, therefore, the impact on the habitats of various animal and plant species - including birds, reptiles, amphibians, invertebrates, *Marsilea quadrifonia Ludwiga palustris, Sagittaria sagittifolia, Salvinia natans, Senecio paludosus, Utricularia vulgaris* – is reduced; However, Reagens is committed to adopting technical and organizational measures to avoid or minimize the environmental impacts caused by fugitive, odorous, noise emissions or potentially dangerous substances for the environment and to therefore prevent damage to flora and fauna of the area.

6.2.8. Safety and risk of major accidents

The factory falls within the scope of application of Legislative Decree 334/99 art. 8 as amended by Legislative Decree no. 238/2005 "Implementation of Directive 96/61/EC - as amended by Directive 2003/105/EC - relating to the control of the dangers of major accidents connected with certain dangerous substances" due to the presence of

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storage beyond the thresholds set out in Annex I of the Legislative Decree itself, not for the detention of explosive substances, flammable aerosols or combustive gases.
The company has presented the Safety Report to the Competent Authorities (last revision May 2021). The company has adopted, and implemented a Safety Management System for the prevention and reduction of major accident risks. An External Emergency Plan has been drawn up by the Prefecture of Bologna (Rev. 2013).

6.2.9. Future perspectives

The approach to sustainable development is based on particular objectives and measures to achieve them.
In view of continuous improvement, the company is committed to minimizing environmental impact through research and the subsequent use of new raw materials with the consequent development of sustainable products and solutions to meet the needs of customers increasingly oriented towards sustainability. This is demonstrated by the improved scores year after year of external evaluations such as EcoVadis.
Furthermore, adopting sustainable and innovative technologies can help the company reduce resource consumption, emissions, and waste, thus improving its environmental footprint.
Reagens is very active in the field of sustainability and is committed to making the lives of all human beings and the surrounding environment better and safer in the long term. For this reason, it is a member of VinylPlus, and has joined the voluntary commitment of the PVC industry, which resulted in the complete elimination of Lead and Cadmium-based stabilizers in the European Union well before any legislative initiative in this sense.
Reagens, which is one of the founding members of VinylPlus, has adopted the 4 Principles of Sustainability set out by TNS (The Natural Step), as the cornerstone to build on in every area of business. These Principles also cover the 17 Sustainable Development Goals that can be impacted by a plastic additive manufacturer like Reagens.

On this basis, some of the group's sites have already obtained the VinylPlus Supplier Certificate, based on the ASF (Additive Sustainability Footprint) methodology, and the San Giorgio di Piano site will follow by 2026.

6.3. Social sustainability

6.3.1. Human rights and code of ethics

Moral integrity is a constant duty of all those who work in the company and characterizes the behavior of its entire Organization. In particular, the adopted Code of Ethics is aimed at disciplining and regulating the behaviors and relationships between the various interested parties involved in the activity, from employees to stakeholders, through customers and suppliers.
Reagens respects the dignity and human rights of any identity involved in its business, without any form of discrimination.

6.3.2. Value of human resources

Employees and collaborators are an indispensable factor for the success of Reagens. For this reason, the company protects and promotes the value of human resources with the aim of improving and increasing the assets and competitiveness of the skills possessed by each collaborator.

6.3.3. Health and safety in the workplace

Reagens guarantees the physical and moral integrity of its employees, working conditions that respect individual dignity and safe and healthy working environments, combating all forms of violence or harassment, discrimination based on

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age, gender, sexual orientation, nationality, political opinions, religious orientation. For this reason, it is committed to spreading and consolidating a culture of safety by developing awareness of risks and promoting responsible behavior by all employees and collaborators; it also works to preserve the health and safety of workers, especially with preventive actions.
In particular, the fundamental principles and criteria under which decisions are made, of all types and at all levels, regarding health and safety at work have their roots in the "Policy for health, safety at work, environment, and prevention of major accident risks". In this regard, the company has a management system certified according to the standard UNI ISO 45001:2023.

6.3.4. Organizational Model

Reagens is also equipped with an Organizational Model to achieve the established objectives, according to Legislative Decree 231/01. The purpose of the Model is the preparation of a structured and organic system of procedures and rules that must be respected in order to reduce the risk of crimes relating to health, safety, and the environment being committed.
The Model also has the following purposes:

- Determine in all those who operate in the name and on behalf of the company full awareness of the risks that would arise for the company in the event of a violation of the provisions contained in this document and, more generally, of all the provisions adopted by the company itself;
- Identify the rules to prevent illicit behavior contrary to the company's interests (even when it could apparently gain an advantage), since these are behaviors that conflict with the ethical-social principles of the company as well as with the provisions of the law;
- Allow the company, thanks to constant monitoring of sensitive processes and, therefore, the risks of committing crimes in the environment and safety in the workplace, to react promptly to prevent and combat the commission of the crimes themselves.

6.3.5. Future perspectives

We know the challenge of a world in which fundamental human rights are guaranteed and respected. Among these, we can identify health and safety, dignified work, respect for one's identity, society and the environment. The future prospects for our reality are to ensure that these rights, within the limits of our possibilities, are respected inside and outside our reality, spreading respect for these rights to all interested parties.
The approach to continuous improvement allows us to guarantee a safe and sustainable working environment for workers that has no repercussions on their health and safety, both inside and outside the company, promoting a collaborative and trusting climate.

7. CONCLUSIONS

The approach to continuous improvement to guarantee increasingly sustainable development, a work environment with a serene and safe climate from the point of view of the health and safety of both workers and the local community, is bearing fruit and allows us to guarantee a considerable economic stability in an increasingly dynamic and competitive world of work. Reagens' objective is to proceed in this direction, adapting his reality to the situations that the world of work and the market propose, always respecting the fundamental principles reported in the Code of Ethics and in the company policy.

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