Biotalys Sustainability Profile

5 January 2026

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1. Introduction

Sustainability is at the heart of the commitment of Biotalys, and is the reason why we develop innovative crop protection solutions. We strive for agriculture to become more sustainable and aim to contribute by offering growers new tools to protect their crops, manage pest and disease resistance, maintain yield, increase their crops' shelf life and reduce food loss in an environmentally friendly way.

Our products are protein-based and by nature biodegradable. They have no adverse impact on soil and biodiversity, do not accumulate in groundwater and are designed to be applied as conveniently as any conventional pesticide. Our AGROBODY™ biocontrols can be easily introduced in farmers' integrated pest management programs, and leave no chemical residues on crops and thus on the food we consume every day.

Biotalys' annual reports include the company's ESG strategy as endorsed by the Board of Directors. In addition, the report provides information on various of our partnerships that contribute to sustainability, and includes an interview with our Head of Sustainability. The report is available on its website (www.biotalys.com).

In addition to the information contained in its annual report, Biotalys hereby discloses additional information further underpinning its sustainability profile, both in terms of its environmental impact and its social governance.

2. Biotalys ESG-strategy

The current ESG strategy of Biotalys (Annual report 2024, page 53) is based on a stakeholder survey conducted in 2022, where stakeholders ranked ESG subjects by importance. This process identified four key focus areas: (i) Food Loss, (ii) Environmental Product Impact, (iii) Human Capital, and (iv) Innovation Management. These areas are aligned with the Sustainable Development Goals (SDGs) relevant to Biotalys.

Figure 1: Visual presentation of Biotalys' current Sustainability Strategy

In 2023, Key Performance Indicators (KPIs) have been established for each focus area to track progress. In the annual report of 2024, the company has reported on these KPIs (Annual report 2024, page 59) for the first time.

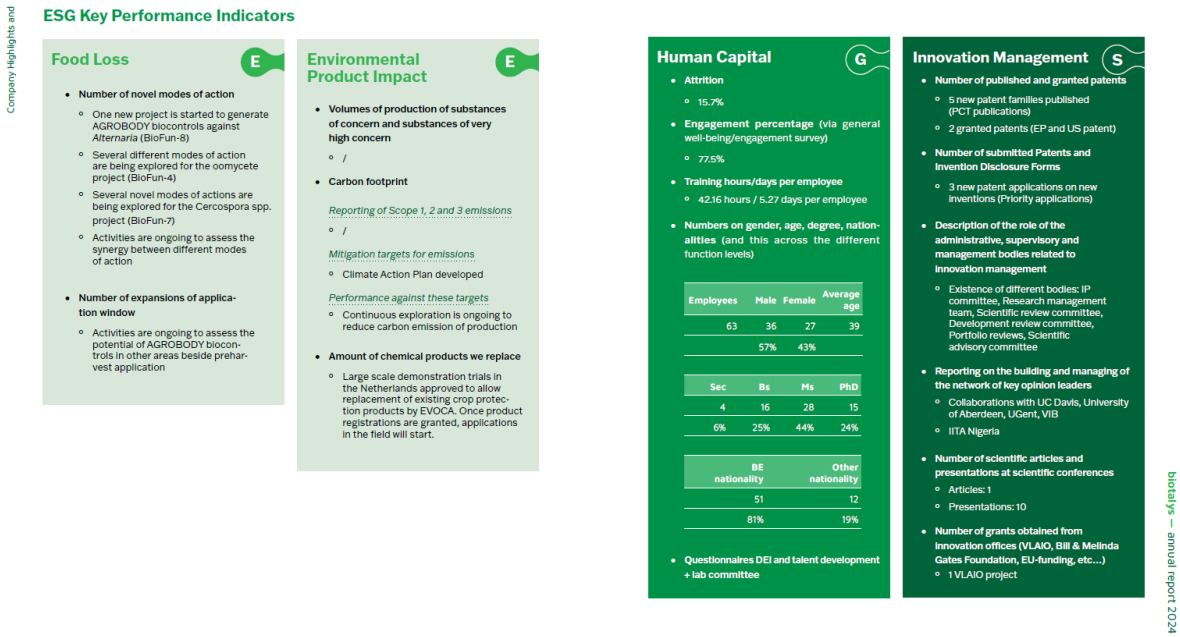


Figure 2: Biotalys' ESG KPI's first reporting, from: Annual Report 2024, page 59.

Food loss and product sustainability is central to Biotalys' mission. By developing transformative, non-harmful solutions to longstanding crop challenges, Biotalys aims to lead the future of safe and sustainable crop protection and reduce food loss in the field. Biotalys will measure its impact in this main area via the following metrics:

- Number of new modes of action;
- Number of expansions of application window;
- Amount of chemical crop protection products we replace.

For EVOCA™, the first product of Biotalys, a new mode of action has been determined by the FRAC (Fungicide Resistance Action Committee), which is an exceptional achievement. To Biotalys' knowledge, in the last decade, only on 3 other occasions a new FRAC-code has been assigned for a fungicide.

In terms of corporate sustainability, the focus is on human capital and innovation management. KPIs have been established to monitor certain aspects.

Overall, Biotalys' sustainability strategy is built on the development of inherently sustainable products (protein-based crop protection products) designed to replace chemical pesticides.

3. Environmental impact: study results

EVOCA™ is our first product developed on our technology platform, the AGROBODY Foundry™. The product is a protein-based biofungicide protecting high-value fruits and vegetables against important fungal diseases (Botrytis and powdery mildew). Multi-year field trial results show consistent, solid performance on these fungal diseases in a variety of fruit and vegetable crops and geographies.

End of 2020, Biotalys decided to submit its regulatory file in the U.S. and shortly after also in Europe to bring innovation as quickly as possible in the hands of both American and European growers. EVOCA™ is registered in the U.S since December 1st, 2025. and awaits registration in the European Union. In the U.S., the responsible evaluating authority is the Environmental Protection Agency (EPA). In the EU, the first evaluation was done by the Board for Authorization of Plant Protection Products (CTGB) in the Netherlands.

To support the regulatory dossiers, various studies are required to confirm the safety of the product. Biotalys has had external, accredited parties perform these studies and has submitted the results to the authorities as part of its filings.

The summary of the key studies can be found below. All studies have been performed according to the relevant guidelines. Each study result points to the benign profile of EVOCA™. This is valid for the mammalian toxicity, ecotoxicity and biodegradability profile of the product. The evaluation of these studies and the risk assessment by EPA and CTGB can be found under point 4. and 5.

a. Toxicity profile of EVOCA™

As is standard in the industry for the testing of crop protection products, Biotalys has assessed the safety of EVOCA™ for mammals, including humans, through 6 toxicological effect studies (so-called "six-pack" studies). These relate to exposure of the product through oral intake, dermal exposure, inhalation, skin irritation, eye irritation and skin sensitisation.

For each of these studies, the end points highlighting the toxicity level are set out in the table below. Each of the endpoints shows that no classification is required, meaning that the results do not require labelling the product as risky or dangerous for humans. This is confirmed by both the EPA and CTGB. This is the best outcome possible, and makes the product best-in-class especially compared to existing chemical pesticides.

Data point[1]	**Guideline**	**Endpoint**
Oral	OECD 425	LD_{50} > 5000 mg/kg bw
Dermal	OECD 402	LD_{50} > 5000 mg/kg bw
Inhalation	OECD 403	LC_{50} > 1,91 mg/L
Skin irritation – in vivo	OECD 404	Non-irritant
Eye irritation – in vivo	OECD 405	Non-irritant
Skin sensitisation – in vivo	OECD 429	Non-sensitizer

b. Ecotox profile of EVOCA™

Biotalys has also performed tests to assess the (lack of) toxic effect of EVOCA™ on beneficial plants and organisms and the environment (so-called "ecotox"), such as aquatic life (fish, water insects and algae), bees and birds.

Each of these ecotox studies shows the beneficial profile of the product for the environment, considerably more beneficial than the existing chemical products.

[1] Tests with the end-product.

Data point		Guideline	Endpoint	
Acute toxicity to fish[1]		OECD 203	LC50 > 76.1 mg a.i./Lnom	
Acute toxicity to Daphnia magna[1]		OECD 202	EC50 = 102 mg a.i./L	
Effects on growth of green algae[1]		OECD 201	72-h NOEC = 0.0352 mg a.i./L 72-h LOEC = 0.294 mg a.i./L 72-h ErC50 = 63.4 mg a.i./L 72-h EyC50 = 1.84 mg a.i./L 72-h EbC50 = 2.25 mg a.i./L	
Effects on non-target arthropods other than bees[1]	*Typhlodromus pyri*	BLÜMEL et al. (2000)	Mortality NOER = 105.6 g a.i./ha LR_{50} > 1996.6 g a.i./ha	Reproduction NOER ≥ 1996.6 g a.i./ha ER_{50} > 1996.6 g a.i./ha
	Aphidius rhopalosiphi	MEAD-BRIGGS et al. (2000)	Mortality NOER = 105.6 g a.i./ha LR_{50} > 1996.6 g a.i./ha	Reproduction NOER > 1109.2 g a.i./ha ER_{50} > 1109.2 g a.i./ha
Acute oral toxicity to bees[2]	OECD 213		48-h LD_{50} > 81.5 µg a.i./bee 48-h NOED = 81.5 µg a.i./bee	
Acute contact toxicity to bees[2]	OECD 214		48-h LD_{50} > 101 µg a.i./bee 48-h NOED = 101 µg a.i./bee	
Acute oral toxicity to bumblebee[2]	OECD 247		48-h LD_{50} > 99.4 µg a.i./bb 48-h NOED = 99.4 µg a.i./bb	
Acute contact toxicity to bumblebee[2]	OECD 246		48-h LD_{50} > 80 µg a.i./bee 48-h NOED = 80 µg a.i./bb	
Avian Acute Oral Toxicity Test[2]	OCSPP 850.2100		LD50 ≥ 412 mg a.i./kg bw NOEL = 412 mg a.i./kg bw	

[2] Tests with dry Technical Grade Active Ingredient

c. Biodegradability profile of EVOCA™

Our AGROBODY™ biocontrols are based on proteins. These are biodegradable by nature and are developed throughout the research and development phase for maximum efficacy to control pests and diseases in the field before they naturally start degrading into their amino acid building blocks. The latter are a potential source of nutrients for plants and micro-organisms.

It is well established that proteins are common in soils and waters and are of utmost importance for the nitrogen/carbon cycles and the quality of soil life.

The active substance of the EVOCA™ is a protein (VHH or AGROBODY™ bioactive) of 13.2 kDa. Biotalys has performed various studies on the biodegradability of the technical grade active substance (TGAS) of EVOCA™, the protein itself, and the dry TGAS whereby the water was extracted.

The results of each of these studies show readily biodegradability of the tested substance. Therefore, due to the nature of the protein and its characteristics regarding its fate and behaviour in the environment (readily biodegradable), the existence of relevant residues of the active substance in the soil and water derived from the application of EVOCA™, and any adverse impacts on soil microorganisms are considered as very unlikely.

Data point	Guideline	Test item	Endpoint
Ready biodegradability	OECD 301 B	TGAS of EVOCA™	Readily biodegradable
Ready biodegradability	OECD 301 B	VHH protein of EVOCA™	Readily biodegradable
Ready biodegradability	OECD 301 B	Dry TGAS of EVOCA™	Readily biodegradable

d. Conclusion

All the study results above show that EVOCA™ has a very beneficial toxicity profile, and is safe for humans, mammals, and the environment. In addition, Biotalys believes its technology platform is capable of developing a series of protein-based crop protection products with a similar benign profile in terms of toxicity and environmental impact. These are designed to offer a safe and healthy alternative to conventional chemical crop protection products and to help reduce chemical residues in our soils and on our food.

4. Evaluation of EVOCA™ by the Environmental Protection Agency (EPA) of the USA

On December 1st 2025, the EPA became the first regulatory authority worldwide to issue a full registration for the new active ingredient ASFBIOF01-02 polypeptide (active ingredient in EVOCA™) and the end use product EVOCA™. The EPA's conclusion, after a five year evaluation period, is that EVOCA™ meets the standards for registration in the United States of America. The final registration decision is publicly available online[3]

A short summary of the main findings of EPA are:

- EVOCA™ is a water-soluble granule formulation. EPA agrees that it can be used both as a preharvest and postharvest product for the control of fungal plant diseases (Botrytis, powdery mildew, grey mold, blue mold, and green mold) on a wide range of food and non-food crops, including vegetables, fruits, ornamentals, hemp, and tobacco via foliar spray and dip, drench, and mist/fog applications.
- EPA evaluated all submitted toxicity studies thoroughly. EPA concluded that for all acute toxicity areas (oral, dermal, inhalation, eye irritation, skin irritation), EVOCA™ fits in EPA's toxicity category IV, which is the lowest hazard classification under EPA's classification system. This means that no signal word is required on the label. Also, EPA concluded there is a low allergenic potential. Only for long term inhalation, effects were seen, likely from fermentation by-products, which will be mitigated by the recommendation to wear inhalation protection during application. EPA also concludes there are no adverse effects in prenatal development studies. EPA concludes that there is reasonable certainty that no harm will result to the U.S. population, including infants and children, by the use of EVOCA™ in the U.S.
- EPA concluded that the lack of hazard was sufficient to establish a tolerance exemption for EVOCA™ in all food products.
- EPA evaluated all submitted ecotoxicological studies thoroughly as well. EPA concluded that no effects were observed for birds, freshwater invertebrates, freshwater fish, honeybee, bumblebee, parasitic wasp, predatory mite and earthworms. Freshwater algae may be affected, but EPA concluded that environmental concentrations will be well below any threshold of concern.

EPA concluded as follows:

"Based on 1) the submitted scientific rationale, 2) data showing limited toxic effects only to non-target freshwater algae and no effects to other non-target taxa tested at concentrations higher than anticipated exposure concentrations, 3) estimated environmental concentrations expected to be below any levels of concern for species where a risk quotient could be calculated (i.e., freshwater algae), 4) limited exposure to non-target plants and in freshwater habitats, 5) low proposed application rates, and 6) the expectation of rapid degradation, EPA has determined that there is a reasonable expectation of no adverse direct or indirect effects to occur to any non-target organisms exposed to ASFBIOF01-02 contained in the end use product EVOCA™ as applied in accordance with the proposed label."

As part of the registration process in the US, a 15-day public comment process was launched. All of the comments received supported the registration of EVOCA™ and highlighted the products novel mode of action, favorable environmental safety profile, and rapid biodegradability.

[3] This conclusion is publicly available and can be found here: Regulations.gov.

5. Evaluation of EVOCA™ by the Board for Authorisation of Plant Protection products (CTGB)

In June 2025, CTGB (evaluating body of the rapporteur member state the Netherlands for the EVOCA™-dossier) proposed to the European Food Safety Authority (EFSA) that, after their thorough evaluation, EVOCA™ can be approved in Europe. Following this proposal, EFSA and all other member states will now review this proposal to come to a final decision, expected in the second half of 2026. Also, the CTGB concluded that EVOCA™ can be classified as *low risk substance* due to its benign tox and ecotox profile.[4]

In its evaluation, CTGB made the following conclusions in the area of toxicity and ecotoxity:

- The active substance is rapidly degraded in the gastrointestinal tract. There is no classification required for acute oral toxicity, acute dermal toxicity, acute inhalation toxicity, skin corrosion and irritation, eye damage and irritation. and highly absorbed; no acute toxicity (oral, dermal, inhalation), skin or eye irritation, or phototoxicity.
- Regarding respiratory sensitization, the CTGB concludes low toxicity and low immunogenicity related to the use of the active ingredient. However, to prevent possible respiratory sensitization caused by the degradation products of the production micro-organism, a warning sentence might be used: “Contains components from *Pichia pastoris*: Microorganisms may have the potential to provoke sensitizing reactions after respiratory exposure.”
- The CTGB concludes that in all the submitted studies, no genotoxicity, carcinogenicity, reproductive, developmental, or neurotoxic effects were observed.
- The CTGB agrees with all risk assessments and agrees that the risk levels for all user groups (workers, bystanders, residents) are acceptable.
- According to the CTGB, no concerns related to the use of the active ingredient (VHH) with respect to allergenicity, are expected. However, allergenicity concerns are expected to be related to the degradation products of the production host micro-organism.
- The CTGB concludes that the substance is considered as having very low toxicity, and therefore it is recommended to include the substance in Annex IV of Regulation (EC) 396/2005. This means that no maximum residue levels have to be defined for EVOCA™.
- The CTGB concludes there is a low risk for birds, mammals, bees, earthworms, and other soil organisms.
- Acceptable risk for aquatic organisms except for algae, where a data gap remains due to unreliable studies. This data gap is possible to be solved during the European peer review phase.

6. Highlights from EPA’s and CTGB’s evaluation

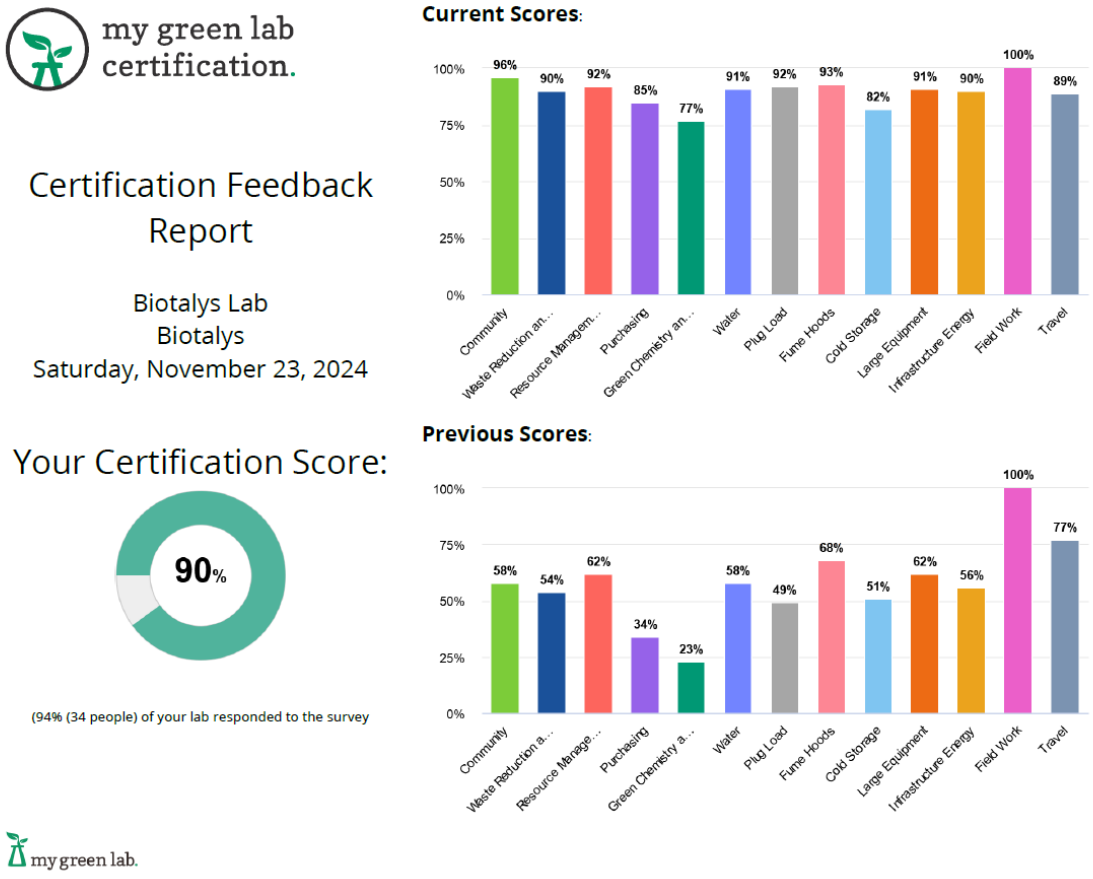
Both authorities independently conclude that, based on the studies, EVOCA™ has a low toxicity and ecotoxicity profile, and no toxicity classification of the product is required.
Furthermore, CTGB also considers the active substance as a ‘low risk substance’ (European classification) in all areas (human tox, chemistry, ecotoxicology, residues, environmental fate) based on the current data.

[4] The comprehensive CTGB evaluation summary, which will soon also available to the public, can be shared upon request.

Also, both authorities conclude independently, based on the low toxicity profile of EVOCA™, that the setting of Maximum Residue Levels (MRLs) is not required. This is quite a unique situation since normally, fungicides require the determination of MRLs on each crop in the countries where the product is registered, used and the produce sold. The setting of MRLs is a complex undertaking, requiring big investments which is now not required for EVOCA™, giving Biotalys a competitive advantage.

7. My Green Lab Certification

Also during lab activities – the core of Biotalys R&D – sustainability is top of mind of the employees. In December 2024, Biotalys received a My Green Lab certificate, recognising the efforts of its people to make a positive change to their work and create a culture of sustainability in the lab. The company obtained the green score, the highest score available. (Biotalys Annual Report 2024, page 61).



8. ESG assessments by analysts

The following financial analysts have done an ESG assessment of our company:

- Guy Sips – KBC Securities
- Christian Faitz – Kepler Cheuvreux
- David Seynnaeve and Fien Van Hauwermeiren – Degroof Petercam.

These analyses can be obtained upon request and with the approval of the respective analyst.