

MagNfix™

Soybean Rhizobial Seed-Coating Inoculant Kit - Microbial Plant Biostimulant (PFC 6(A))

Prepared in accordance with Regulation (EC) No 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878

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Note: MagNfix is not classified as a hazardous substance or mixture under Regulation (EC) No 1272/2008 (CLP). This Safety Data Sheet is issued voluntarily by Protealis NV to support the safe handling, transport, storage and use of the product, consistent with good stewardship practice for microbial fertilising products, and to accompany the statutory product label issued under Regulation (EU) 2019/1009.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: MagNfix™

Product type: Three-component soybean seed-coating kit: liquid inoculum (Bag 1), liquid sticker (Bag 2), solid carrier (Bag 3)

Regulatory status: Fertilising product – Component Material Category (CMC) formulation, Product Function Category PFC 6(A) "Microbial Plant Biostimulant", Regulation (EU) 2019/1009

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified use: Professional seed treatment (coating) of soybean (*Glycine max*)

Uses advised against: Application by unprotected or untrained personnel outside dedicated seed-treatment equipment, as this can cause suboptimal inoculation or bacterial survival. Use on seed crops other than soybean without prior validation; use as a food, feed, or biocidal product.

1.3 Details of the supplier of the safety data sheet

Manufacturer: Protealis NV

Registered office: Legen Heirweg 20D, 9890 Gavere, Belgium

Site / R&D address: Technologiepark-Zwijnaarde 94, 9052 Ghent, Belgium

Telephone: +32 9 261 69 00

E-mail: info@protealis.com

Website: www.protealis.com

1.4 Emergency telephone number

In the event of a medical emergency, contact the emergency services (112 within the EU) or your national Poison Control Centre and have this Safety Data Sheet and the product label available.

- Belgium (Centre Antipoisons): 070 245 245
- France (SAMU Social) : 115
- Germany (emergency services) : 112

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Based on the information available on its components, MagNfix is not classified as hazardous according to Regulation (EC) No 1272/2008 (CLP) — i.e. it is not classified for physical, health or environmental hazards.

As with other products containing viable micro-organisms and powder, the product carries an inherent, low-level potential for sensitisation and mechanical/respiratory irritation on repeated or poorly controlled occupational exposure. This is reflected in the precautionary label elements below, which are applied on a precautionary basis consistent with Regulation (EU) 2019/1009 labelling requirements, even though no formal CLP hazard class applies.

2.2 Label elements

Pictograms: None required

Signal word: None

Hazard statements: None assigned under CLP

Precautionary statements: P102 – Keep out of reach of children. P270 – Do not eat, drink, or smoke when using this product.

EUH statement: EUH401 – To avoid risks to human health and the environment, comply with the instructions for use.

2.3 Other hazards

- Dust generated from the solid carrier (Bag 3) during pouring or mixing may cause mechanical irritation of eyes, skin and airways and, in bulk quantities, should be handled as a combustible organic dust (avoid dust accumulation and ignition sources).
- The product does not meet the criteria for PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) substances.

SECTION 3: Composition/information on ingredients

MagNfix is a mixture supplied as three separate, co-packaged components (a liquid inoculum, a liquid sticker, and a solid carrier) that are combined at the point of use during seed coating. No component is classified as hazardous under CLP and none is present above a concentration that would trigger a hazard-based disclosure requirement under Article 31 and Annex II of Regulation (EC) No 1907/2006.

3.1 Mixtures

Components: Culture of *Bradyrhizobium* bacteria formulated with a polymer sticker and an organic solid carrier.

SECTION 4: First aid measures

4.1 Description of first aid measures

Skin contact: Wash with abundant soap and water. If irritation persists, seek medical attention.

Eye contact: Rinse cautiously with running water for at least 10 minutes. Remove contact lenses if present and easy to do. If irritation or symptoms persist, consult a doctor.

Inhalation: Move the affected person away from the source of dust/aerosol into fresh air and keep at rest. If irritation, coughing, or breathing difficulty persists, seek medical attention.

Ingestion: Rinse mouth with water. Ingestion of small amounts during normal handling is not expected to cause harm; ingestion of significant quantities may cause digestive discomfort (e.g. nausea). Do not induce vomiting. Consult with a doctor if symptoms occur or persist.

4.2 Most important symptoms/effects, acute and delayed

Mild, transient mechanical irritation of skin, eyes or airways from dust or slurry contact is possible. In predisposed or repeatedly/heavily exposed individuals, sensitisation (allergic-type skin or respiratory reaction) to the product cannot be excluded. No acute systemic toxicity is expected from normal handling.

4.3 Indication of any immediate medical attention and special treatment needed

No specific antidote exists; treat symptomatically. There are no specific contraindications known.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Water spray/fog, foam, carbon dioxide (CO₂) or dry chemical powder, selected according to the surrounding fire — the product itself is not flammable.

Unsuitable extinguishing media: Avoid high-pressure water jets on the dry powder carrier, as these can disperse organic dust into the air.

5.2 Special hazards arising from the substance or mixture

The product itself does not burn readily. As with any fine organic powder, accumulated dust suspended in air near an ignition source may present a minor dust-flash/explosion risk; avoid dust accumulation on surfaces and control ignition sources in bulk storage/handling areas. Combustion of organic material in an external fire may generate carbon oxides and smoke.

5.3 Advice for firefighters

No unusual fire or explosion hazards are associated with normal-use quantities. For fires involving bulk storage, use self-contained breathing apparatus and full protective equipment as for any organic/agricultural material fire.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid generating or inhaling dust. Wear the personal protective equipment described in Section 8. Ensure adequate ventilation. Keep unprotected people away from the spill area.

6.2 Environmental precautions

Avoid discharge of large spills to soil, drains or surface water. Although the microbial and organic components are of low environmental concern, good practice is to prevent unnecessary release to the environment outside the intended agronomic application.

6.3 Methods and material for containment and cleaning up

- Solid carrier (powder): avoid raising dust; sweep or vacuum (with a suitable dust-rated vacuum) rather than using compressed air or dry brushing. Collect into a labelled, closable container.
- Liquid inoculum/sticker or mixed slurry: contain the spill, absorb with an inert absorbent material (e.g. sand, vermiculite, diatomaceous earth), then sweep up and place in a suitable container for disposal (see Section 13).
- Wash the residual spill area with water; do not allow wash-water to enter drains or watercourses without approval from the local water authority.

6.4 Reference to other sections

See Section 8 for exposure controls/personal protection and Section 13 for disposal considerations.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Use only in professional/licensed seed-treatment facilities operating best available techniques (BAT) to minimise the release of dust during application to seed, and during subsequent storage and transport of coated seed.
- Wear appropriate protective clothing and safety gloves.
- Shake the liquid components well before opening/mixing.
- Avoid inhalation of dust and contact with skin and eyes; do not eat, drink or smoke while handling the product (P270).
- Use local exhaust ventilation or enclosed transfer/mixing equipment where dust generation cannot otherwise be controlled.
- Wash hands and any exposed skin thoroughly after handling and before eating, drinking or smoking.
- Do not mix directly with bactericidal seed treatments or nitrogen-fertiliser products; if combining with chemical seed treatments, apply the chemical treatment first, allow it to dry completely, and only then apply the MagNfix coating (see Section 10).

7.2 Conditions for safe storage, including any incompatibilities

- Store in the original, unopened packaging.
- Store in a cool, dry place at 2–7 °C, protected from direct sunlight.
- Protect from freezing temperatures, which will reduce or destroy microbial viability.
- Keep out of the reach of children (P102).
- Do not use beyond the expiry date (6 months from the production date shown on the packaging) or if the product has not been stored under the conditions above.
- Store away from bactericides, disinfectants, and concentrated fertiliser products.

7.3 Specific end use(s)

Professional seed coating of soybean (*Glycine max*) seed only, prior to sowing, following the mixing and application instructions on the product label.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

No substance-specific occupational exposure limit (OEL) has been established for MagNfix or its components. Where organic/nuisance dust exposure limits are established under national legislation, these should be used as a reference for controlling exposure to airborne carrier dust during bulk handling.

8.2 Exposure controls

Engineering controls: Use local exhaust ventilation or enclosed seed-treatment/mixing equipment to control dust at the point of generation, consistent with best available techniques (BAT) referenced on the product label.

Eye/face protection: Safety glasses or goggles are recommended when handling the powder carrier or mixed slurry.

Skin protection: Wear protective gloves (e.g. nitrile) when handling the product.

Respiratory protection: Wear an FFP3 filtering face-piece respirator (or equivalent) where dust generation cannot be adequately controlled by ventilation.

Other protective measures: Do not wear contaminated clothing outside the work area; launder separately from other laundry. Wash hands and exposed skin after handling.

Environmental exposure controls: Prevent release of significant quantities to soil, drains or watercourses outside intended agronomic use (see Section 6).

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Property	Bag 1 + Bag 2 (mixed slurry)	Bag 3 (carrier)
Physical state (20 °C)	Liquid slurry	Solid powder
Colour	Opaque	Characteristic (off-white/beige); see packaging
Odour	Mild.	Mild.
pH	Not determined	Not applicable
Melting/freezing point	Not determined (avoid freezing – see Section 7)	Not applicable
Flash point	Not applicable (aqueous-based)	Not applicable
Flammability	Not classified as flammable	Not classified as flammable; combustible as an organic dust in bulk (see Section 5)
Density	Not determined	Not determined
Solubility in water	Miscible / disperses in water	Disperses in water
Explosive properties	Not classified	Not classified; treat as combustible dust in bulk (see Section 5)
Oxidising properties	None	None

9.2 Other information

No

SECTION 10: Stability and reactivity

10.1 Reactivity

No hazardous reactions are expected under normal conditions of use, handling, and storage.

10.2 Chemical stability

Stable when stored as directed (Section 7): in original packaging, at 2–7 °C, protected from light and freezing, and used within the stated shelf life (6 months from production). Microbial viability — and therefore product performance — declines if these conditions are not met, or once the seed coating itself has been stored beyond 90 days or outside 3–16 °C.

10.3 Possibility of hazardous reactions

None known. Mixing with bactericidal products, disinfectants or concentrated nitrogen-fertiliser products is not a chemical hazard but will reduce or eliminate the viability/efficacy of the living inoculant and should be avoided (see Sections 7 and 15, and the product label's compatibility guidance).

10.4 Conditions to avoid

Freezing; exposure to direct sunlight or elevated temperatures; storage beyond the expiry date; contamination of opened packs.

10.5 Incompatible materials

Bactericides and disinfectants; strong oxidizing, acid or basic agents; concentrated nitrogen-fertiliser products; chemical seed treatments applied without following the recommended sequence (chemical treatment first, dried completely, then MagNfix coating).

10.6 Hazardous decomposition products

None expected under normal storage and use. Should the product be allowed to spoil (e.g. through prolonged mis-storage), normal microbial/organic decomposition odours may develop; no hazardous decomposition gases are expected.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity: No data available.

Skin corrosion/irritation: No data available.

Serious eye damage/eye irritation: No data available.

Respiratory or skin sensitisation: No data available.

Germ cell mutagenicity / Carcinogenicity / Reproductive toxicity: No data available.

STOT – single/repeated exposure: Not classified.

Aspiration hazard: Not applicable.

11.2 Information on other hazards

Bradyrhizobium japonicum strain SOY223 is a naturally occurring, non-pathogenic soil rhizobacterium classified as a Risk Group 1 biological agent under Directive 2000/54/EC (i.e. unlikely to cause human disease), consistent with its authorization as a microbial component material (CMC 7) under Regulation (EU) 2019/1009.

None of the compounds of this product have been included in the list established pursuant to Article 59(1) due to endocrine-disrupting properties, or is not a substance with endocrine-disrupting properties according to the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 12: Ecological information

12.1 Toxicity

MagNfix is not expected to be toxic to aquatic organisms, birds, soil organisms, or other non-target species. *B. japonicum* is a rhizobacterium naturally present in agricultural soils and specifically associated with soybean root nodulation. Avoid releasing the product into the environment.

12.2 Persistence and degradability

The organic and microbial components are not expected to persist in the environment beyond their normal agronomic lifecycle.

12.3 Bioaccumulative potential

Not applicable/not bioaccumulative.

12.4 Mobility in soil

Not applicable beyond the normal distribution of the inoculant with the treated seed and its intended colonisation of the root zone.

12.5 Results of PBT and vPvB assessment

The product does not meet the criteria for classification as PBT or vPvB.

12.6 Other adverse effects

None of the substances of this product have been included in the list established pursuant to Article 59(1) due to endocrine-disrupting properties, or is not a substance with endocrine-disrupting properties according to the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

- Use the product according to the label instructions wherever possible.
- Dispose of unused, excess, or expired product via an authorised waste management contractor, in accordance with Directive 2008/98/EC on waste and applicable national/regional waste legislation. Do not discharge to drains, watercourses or soil outside the intended agronomic use.
- Empty, uncontaminated packaging may be recycled or disposed of as normal packaging waste in line with local regulations; do not reuse empty packaging for other purposes.
- The waste holder is responsible for assigning the correct European Waste Catalogue (EWC) code based on the actual composition and contamination of the waste at the point of disposal (indicatively within the EWC chapter for wastes from agricultural production, subject to confirmation with the local waste authority).

SECTION 14: Transport information

UN number: Not applicable – not classified as dangerous goods

UN proper shipping name: Not applicable

Transport hazard class(es): Not applicable

Packing group: Not applicable

Environmental hazards: Not a marine pollutant

Special precautions for user: Not classified as dangerous goods under ADR/RID (road/rail), IMDG (sea) or ICAO/IATA (air). Where practical, transport under the recommended storage temperature (2–7 °C) to preserve microbial viability; this is a product-quality recommendation, not a regulatory transport requirement.

Transport in bulk (Annex II MARPOL/IBC Code): Not applicable – product is transported in packaged form

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- Regulation (EU) 2019/1009 laying down rules on the making available on the market of EU fertilising products — MagNfix is placed on the market as a Microbial Plant Biostimulant, Product Function Category PFC 6(A), formulated from Component Material Categories CMC 1, CMC 6 and CMC 7 (Annex II).
- Regulation (EC) No 1272/2008 (CLP) — the product is not classified as hazardous; the label elements in Section 2 are applied voluntarily.
- Regulation (EC) No 1907/2006 (REACH) — the living micro-organism (*B. japonicum*) falls outside the scope of REACH, which applies to substances rather than living organisms; other components are used within applicable exemptions for naturally-occurring or minimally processed materials.
- Directive 2000/54/EC on the protection of workers from risks related to exposure to biological agents at work — *B. japonicum* is classified as a Risk Group 1 (non-pathogenic) biological agent.
- Directive 2008/98/EC on waste, and corresponding national waste legislation (see Section 13).

15.2 Chemical safety assessment

No chemical safety assessment (CSA) has been carried out, as the product is not classified as hazardous and its components fall outside, or within exemptions to, REACH registration requirements.

15.3 Market placement

MagNfix is placed on the market in France, Germany and Poland under the CE-marking framework of Regulation (EU) 2019/1009. Additional national requirements applicable in the country of use should be verified by the professional user or distributor before placing the product on the market or applying it.

SECTION 16: Other information

16.1 Full text of P- and EUH-statements referred to in Section 2

- P102 – Keep out of reach of children.
- P270 – Do not eat, drink or smoke when using this product.
- EUH401 – To avoid risks to human health and the environment, comply with the instructions for use.

16.2 Abbreviations and acronyms

CFU	Colony Forming Unit(s)
CLP	Classification, Labelling and Packaging Regulation (EC) No 1272/2008
CMC	Component Material Category, as defined in Annex II of Regulation (EU) 2019/1009
FPR	Fertilising Products Regulation (EU) 2019/1009
OEL	Occupational Exposure Limit
PBT	Persistent, Bioaccumulative and Toxic
vPvB	very Persistent, very Bioaccumulative
PFC	Product Function Category, as defined in Annex I of Regulation (EU) 2019/1009
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals, Regulation (EC) No 1907/2006
SDS	Safety Data Sheet
STOT	Specific Target Organ Toxicity

16.3 Key literature and data sources

- MagNfix product label — Coating Product, English (final), Protealis NV.
- Regulation (EU) 2019/1009 of the European Parliament and of the Council laying down rules on the making available on the market of EU fertilising products.
- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.
- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
- Directive 2000/54/EC on the protection of workers from risks related to exposure to biological agents at work.

16.4 Revision information

Version: 1.0 — first issue

Date of issue: 7 August 2026

Sections revised: Not applicable (first issue)

16.5 Disclaimer

The information in this Safety Data Sheet is provided in good faith and is believed to be accurate as of the date of issue, based on the product label and on Protealis NV's current knowledge of the product's composition and intended use. It is provided to assist users in meeting their own obligations under applicable health, safety and environmental legislation and does not constitute a warranty or guarantee of any specific property of the product. Protealis NV accepts no liability for damage or adverse effects

arising from use of the product other than in accordance with the label and this Safety Data Sheet, from use of unsuitable equipment, or from failure to comply with applicable legal, safety and environmental requirements. Users remain responsible for determining the suitability of this product for their intended use and for compliance with all applicable national and EU regulations in their country of use.