



## MATERIAL SAFETY DATA SHEET

According to Regulation (EC) No. 453/2010 and No. 1272/2008

Version #1 of 25/01/2015

GENERIC EU MSDS – NO COUNTRY SPECIFIC DATA

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

#### 1.1 Product identifiers

Product name	BIO-PROTAN® Magnesium
Product number	1121
Brand	Protan AG
REACH No.	A registration number is not available for this substance as the substance or its uses are exempt from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

#### 1.2 Relevant identified uses of the substance or mixture / uses advised against

Identified uses:	Industrial manufacturing (all) [SU3]. Agriculture, forestry, fishery [SU1]
Uses advised against:	Do not use for purposes other than those listed

#### 1.3 Details of the supplier of the safety data sheet

Company	Protan Aktiengesellschaft, Runkelstrasse 38, LI-9495 Triesen
Phone	+423 375 15 25
Fax	+423 375 15 26
Email address	<a href="mailto:info@protan.li">info@protan.li</a>

#### 1.4 Emergency telephone number

Protan AG	+423 375 15 25 (working hours);
Poison emergency call	+41 (0)44 251 51 51 (Centre Suisse d'Information Toxicologique), Emergency call number 24 hours from Switzerland tel. 145
	+49 (0)30 19240 (Gift-Notruf Berlin, 24 hours, language EN and DE)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Not hazardous mixture according to Regulation (EC) 1272/2008 (CLP) and subsequent amendments.

#### 2.2 Label elements

The product is not subject to any labelling obligation/classification according to Regulation (EC) 1272/2008 (CPL).

#### 2.3 Other hazards

PBT/ vPvB criteria	PBT and vPvB assessment not available
Other hazards	No additional information available

### SECTION 3: Composition/Information on ingredients

#### 3.1 Substances

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#### 3.2 Mixture

Natural polymer (amino acids and peptides) modified by chemical hydrolysis and mixed with Magnesium Sulphate Heptahydrate. (CAS No. 10034-99-8; EC No. 600-073-4).

Type of formulation: liquid fertilizer, soluble in water



**SECTION 4: First aid measures**
**4.1 Description of first aid measures**

General advice	If feeling unwell after first aid measures, seek medical advice.
In case of skin contact	Rinse with water; wash off with soap.
In case of eye contact	Flush eyes thoroughly with running water. Remove contact lenses. Continue rinsing.
If swallowed/ingested	Rinse mouth with water. Never give anything by mouth to an unconscious person.
If inhaled	Move concerned person to well-ventilated area if feels unwell.

**4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

**4.3 Indication of any immediate medical attention and special treatment needed**

No data available

**SECTION 5: Firefighting measures**
**5.1 Extinguishing media**

Suitable media	Use <u>water spray</u> , CO <sub>2</sub> , alcohol resistant foam, dry chemical, depending on the materials involved in the fire.
Unsuitable media	None in particular. Use <u>water jets</u> only to cool the surfaces of the containers exposed.

**5.2 Special hazards arising from the substance or mixture**

Liquid product is not reactive and not flammable. If involved in a fire can emit toxic fumes: carbon oxide and nitrous vapours, ammonia, sulphur oxides, magnesium oxide, toxic pyrolysis products (see section 10). Do not breathe combustion products.

**5.3 Advice for firefighters**

Use self-contained breathing apparatus and suitable protective clothing.

**5.4 Further information**

Dispose of contaminated fire extinction water and fire remains according to applicable national and local regulations.

**SECTION 6: Accidental release measures**
**6.1 Personal precautions, protective equipment and emergency procedures**

Always ensure your own safety first. Ensure adequate air ventilation. Avoid contact with skin and eyes. Use proper equipment as indicated in section 8.

**6.2 Environmental precautions**

Stop leaks if possible. Dump the liquid spill and pump over in suitable containers. Do not let product enter drains, sewers, surface water, ground water.

**6.3 Methods and material for containment and cleaning up**

Recover the product for removal. Possibly absorb it with liquid-binding material (earth, sand, diatomite, acid binders, universal binders, sawdust). Keep in suitable, labelled and closed container for disposal in accordance



with regulations. After wiping up, wash with water the area and materials involved.

#### 6.4 Reference to other sections

For emergency contact info	see section 1
For personal protection	see section 8
For waste disposal	see section 13

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

No special precautions required if product is used and processed for the identified purpose (section 1.2.). Handle in accordance with good industrial hygiene practice and observe general safety regulations for handling chemicals.

#### 7.2 Conditions for safe storage, including any incompatibilities

Technical measures/storage conditions	Keep in original container closed tightly. Do not store in open or unlabelled containers. Normal storage conditions without particular incompatibilities. Keep containers upright and safe avoiding possibility of falls or collisions.
Storage compatibility	Store separately from food and animal feed.
Additional disclosures on stock conditions	Store in a cool place, protect from frost and sources of heat.
Storage class	Non combustible liquid

#### 7.3 Specific end use(s)



Fertilizer. Not classified as dangerous. No other specific uses are stipulated apart from the uses mentioned in section 1.2

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

The product does not contain any relevant quantities of materials with critical value limits to monitor. Apply general workplace control parameters. No further information apart from section 7.

#### 8.2 Exposure controls

Personal protective equipment:	Handle in accordance with good industrial hygiene practice and the usual precautionary measures for handling chemicals:
	 
- Eye/face protection	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- Hand protection	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. For full and splash contact we advise the use of "Nitrile Rubber Gloves (NBR)", minimum layer thickness of 0.11 mm. The selected protective gloves have to satisfy the specifications of EU



	Directive 89/686/EEC and the standard EN 374 derived from it.
- Skin and body protection	Choose body protection in relation to work exposure, to the concentration and amount of dangerous substances and to the specific work place.
- Respiratory protection	Respiratory protection is not required. Where protection from nuisance levels of dusts are desired use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Control of environmental exposure	Minimize product release in the environment. Avoid product enter drains.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance, form	liquid	Vapour pressure	not determined
Appearance, colour	yellow ochre	Vapour density	not determined
Odour	undefined	Relative density	1,13 – 1,15 kg/l
Odour threshold	not applicable	Water solubility(ies)	soluble
pH value at 20°C (solution 1:10)	5 – 6	Partition coefficient: n-octanol/water	not determined
Melting point	not determined	Auto-ignition temperature	not determined
Freezing point	- 2 °C		
Initial boiling point and boiling range	not determined	Decomposition temperature	not determined
Flash point	not applicable	Viscosity (dynamic at 20°C)	not determined
Evaporation rate	not applicable	Explosive properties	not determined
Flammability (solid, gas)	not self-igniting	Oxidising properties	not determined
Upper/lower flammability or explosive limits	not explosive	Vapour pressure	not determined

### 9.2 Other safety information

No further relevant information available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

The product is not considered as reactive.

### 10.2 Chemical stability

Stable under recommended storage conditions. No decomposition associated with the proposed use. The product contains no preservatives and is stable when stored undiluted in clean containers and if handled according to label directions. With decreasing shelf life, a slight precipitate is possible; it does not change product quality (see section 7, handling and storage).

### 10.3 Possibility of hazardous reactions

To our knowledge, the product does not present particular risk under normal conditions of use. For further information refer to section 10.5.

### 10.4 Conditions to avoid

Avoid storage in open containers and with temperatures above 30°C and less than 10°C.





### 10.5 Incompatible materials

With strong oxidant agents like oxidants mineral acids, organic peroxides, organic water peroxides, elementary metals exothermic reactions can occur. Apply cautiously in combination with copper, mineral oil based products and sulphur products.

### 10.6 Hazardous decomposition products

In case of burn/fire release of toxic and corrosive gases/vapours possible (nitrous vapours, ammonia, carbon monoxide - carbon dioxide). In the event of fire, refer to section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity:

Acute oral toxicity:	no data available
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Acute dermal toxicity:	no data available
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Acute inhalation toxicity:	no data available
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#### Local effects:

Skin irritation:	no data available
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Eye irritation:	no data available
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Skin sensitisation:	no data available
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#### Other:

Sub-acute toxicity:	Negative
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Mutagenicity:	Negative
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Reproductive toxicity:	Negative
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Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
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Additional information	RTECS no. not available. The product is not subject to classification according to Regulation (EC) 1272/2008 (GHS regulation). For our experience and information the product does not have adverse health effects if handled and used according to specifications. To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated with the exception of Magnesium Sulphate Heptahydrate 16% MgO (CAS No 10034-99-8).
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## SECTION 12: Ecological information

### 12.1 Toxicity

The product is a fertilizer and does not cause adverse effects in the environment if used according to the advised dosages and recommendations of use. Low concentrations discharged correctly into adapted biological sewage treatment plants do not interfere with degradation activity of activated sludge. Handle according to good industrial hygiene practice. Avoid dispersal in the environment. Inform competent authorities in case of contamination of waterways, sewers, soil or vegetation.

### 12.2 Persistence and degradability

No data available.



### 12.3 Bio accumulative potential

No bioaccumulation or bio magnifications expected based on substance properties.

### 12.4 Mobility in the soil

Soluble in water. No additional information available.

### 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher. This substance/mixture does not meet the PBT criteria of REACH, annex XIII.

### 12.6 Other adverse effects

No additional information available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Unused product	Recover if possible. Dispose of surplus and non-recyclable solutions either as fertilizer or by a licensed disposal company following the national and local regulations. Handle in accordance with good industrial hygiene practice and the usual precautionary measures for handling chemicals.
Contaminated packaging	Empty and rinsed containers can be disposed of as non-hazardous material or returned for recycling. Dispose of as unused product. Do not remove label until container is thoroughly cleaned.
Additional information	Can be considered non-hazardous waste according to Directive 2008/98/EC

## SECTION 14: Transport information

The product is not considered dangerous with respect to the scope of application of the regulations concerning the transport of dangerous goods by road (ADR); by rail (RID); by air (ICAO / IATA); by sea (IMDG).

## SECTION 15: Regulatory information

Hazardous substance or mixture according to Regulation (EC) No. 1272/2008 (Regulation on classification, labelling and packaging of substances and mixtures).

BIO-PROTAN<sup>®</sup> Magnesium is produced and marketed according to the following regulations:

Regulation (EC) No. 1069/2009 laying down health rules concerning animal by-products not intended for human consumption and Regulation (EC) No. 889/2008 laying down detailed rules for the implementation of Regulation (EC) No. 834/2007 (Organic production and labelling of organic products with regard to organic production, labelling and controls).

This safety data sheet complies with the requirements of Article 31 of EC Regulation 1907/2006/EC (REACH regulation) and the information contained herein is displayed in the order prescribed in Annex II to that regulation as amended in the year 2010 (435/2010/EC).

The purpose of this safety data sheet is to facilitate the carrying out of a risk assessment. We remind employers of their duty to carry out such an assessment and subsequently to provide an appropriate working environment. It is the employer's duty to procure all necessary personal protective equipment and ensure that all workers handling the product use such equipment.

### 15.1 Safety, health and environmental regulation specific for the substance or mixture

No REACH Regulation (CE) 1907/2006 Annex XVII restrictions and no information available on national regulations restrictions.



### 15.2 Chemical safety assessment

No chemical safety assessment required or carried out by the supplier of the product. This substance is classified as non-hazardous according to Regulation (EC) 1272/2008 (CLP).

### SECTION 16: Other information

Changes since last issue	New release.
Safety data sheet contact person	Protan AG, Christian DOBERS, phone no. +423 375 15 25
General bibliography	Regulation (EC) 453/2010/EC of the European Parliament amending Regulation 1907/2006/EC (REACH) Regulation (EC) 1272/2008 (CLP) Regulation (EC) 790/2009 (I apt. CLP) The Merck Index Ed. 10 Handling Chemical Safety Niosh – Registry of toxic Effects of Chemical Substances INRS – Fiche Toxicologique Patty – industrial Hygiene and toxicology N.I. Sax – Dangerous properties of industrial Materials 7. Ed., 1989 Safety Data Sheets provided by suppliers of component substances.
Abbreviations and acronyms	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road RID: Regulations Concerning the International Transport of Dangerous Goods by Rail IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association ICAO: International Civil Aviation Organization GHS: Globally Harmonized System of Classification and Labelling of Chemicals RTECS: Registry of Toxic Effects of Chemical Substances REACH: Registration, Evaluation, and Authorisation of Chemicals CLP: Classification, Labelling and Packaging

#### Legal notice


This Material Safety Data Sheet (MSDS) is additional to the Technical Data Sheet (TDS) but does not replace it. The MSDS contains guidance on the safe handling, use, processing, storage, transportation and disposal of the product. This document relates to the original product BIO-PROTAN® Magnesium and may not be valid for the formulation or combination with other materials or in any process. The product is developed and tested for the specified uses and should not be used for any other purposes. Any other use may involve risks. The user will take sole responsibility for the precautions relating to the use of the product. The information in this MSDS is applicable to the product with regard to appropriate safety precautions and is not intended to guarantee any particular properties. This document is not to be considered a warranty or quality specification.

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