



**MATERIAL SAFETY DATA SHEET**  
According to Regulation (EC) No. 1907/2006  
Version # 1 of 12/07/2015

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

### 1.1 Product identifiers

Product name	BIO-PROTAN® Liquid Humus
Product number	1902
Brand	Protan AG
REACH No.:	A registration number is not available for this substance as the substance or its uses are exempted 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:	Agriculture, Fertilizer, Plant Strengtheners
------------------	--

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

Company	Protan Aktiengesellschaft – Runkelsstrasse 38, LI-9495 Triesen
Tel.:	+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 or 145 (Centre Suisse d'information toxicologique) +49 30 / 30686 790 (Gift-Notruf Berlin, 24 hours, language EN and DE)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to European Community regulation 1272/2008/EC.

This substance is not classified as dangerous according to directives 67/548/EEC and 1999/45/EEC.

Handle in accordance with good industrial hygiene and safety practice.

### 2.2 Label elements

The product is not subject to any labelling obligation/classification according to EC directives 1272/2008/EC, 1999/45/EEC and German ordinance on hazardous substances (Gefahrstoffverordnung (GefStoffV))

### 2.3 Other hazards

none

PBT and vPvB not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1 Substances

Chemical characterization	Potassium salts of humic acids.
Hazardous ingredients	No components need to be disclosed according to the applicable regulations



## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General recommendation	If feeling unwell after contact with the product, consult a physician and show this safety data sheet.
If inhaled	Move concerned person to well-ventilated area if feeling unwell. If keeps feeling unwell seek medical advice.
In case of skin contact	Remove contaminated clothing. Wash off concerned parts with mild soap and running water. Consult doctor in case of persisting skin irritation.
In case of eye contact	Remove contact lenses. Flush eyes thoroughly with running water.
If swallowed/Ingestion	Rinse mouth with water. Drink plenty of water. Seek medical advice if swallowed in great quantity.

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

No data available

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

There are no special measures known. Treat according to symptoms.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable media	Liquid product is not flammable. Use <u>water spray</u> , CO <sub>2</sub> , dry chemical, depending on the materials involved in the fire and surrounding conditions.
Unsuitable media	None known. Use <u>water jets</u> only to cool the surfaces of the containers exposed.

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

Possible formation of toxic gases during heating or in case of fire (CO, CO<sub>2</sub>).

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### 5.4 Further information

Avoid skin contact by wearing suitable protective clothing. Prevent skin contact by keeping a safe distance. Dispose of combustion residues and contaminated firefighting water in accordance with official regulations.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personal	Leave the area surrounding the spill or release.
For emergency responders	Wear protective clothing and avoid contact with eyes and skin. Provide sufficient ventilation.

### 6.2 Environmental precautions

Do not let product enter drains in concentrated form. Contain spill with earth or sand. If the product has entered a watercourse in sewers or has contaminated soil or vegetation, notify it to the authorities. Discharge the remains in compliance with the regulations.



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

Recover the product for removal, or, if possible for reuse. Possibly absorb it with liquid-binding inert material (sand, diatomite, acid binders, universal binders, sawdust). Keep in suitable closed container for disposal in accordance with regulations. Dispose diluted residues from cleaning through the sewage system.

### 6.4 Reference to other sections

For handling and storage	see section 7
For personal protection	see section 8
For disposal	see section 13

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

No special precautions required when the product is used properly for the relevant identified use (section 1.2.). Handle in accordance with good industrial hygiene practice and observing general safety regulations for handling chemicals.

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

Requirements for storage rooms and containers	Keep in original container closed tightly, upright and safe by avoiding the possibility of falls and collisions. Do not store in open or unlabelled containers.
Storage compatibility	Stored separately from food.
Additional disclosures on stock conditions	Store in a cool and dry place, protect from frost. Keep away from sources of heat and direct exposure of sunlight.
Storage class	12
Classification according to German Regulation BetrSichV and EC Regulation 2009/104/EEC	-

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

## 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 be monitored. Apply general workplace control parameters. No further information apart from section 7.

### 8.2 Exposure controls

Appropriate engineering control	Handle in accordance with good industrial hygiene practice and the usual precautionary measures for handling chemicals.
Personal protective equipment: - Eye/face protection	Wear protective goggles .Use tested and approved equipment for eye protection EN 166 (EU).
- Skin protection	Handle with protective gloves. Does not require the use of chemical resistant gloves. Use PVC gloves as protection from splashes. Gloves made of leather and strong material are not suitable for handling the product.
- Body protection	Work clothing.
- Respiratory protection	Respiratory protection is not required if room is well-ventilated



Control of environmental exposure

Minimize product release in the environment and do not product enter drains

**SECTION 9: Physical and chemical properties**
**9.1 Information on basic physical and chemical properties**

Appearance, form	liquid, water soluble suspension	Vapour pressure	not determined
Appearance, colour	dark brown	Vapour density	not determined
Odour	imperceptible	Relative density	1,10 – 1,15 g/cm <sup>3</sup>
Odour threshold	not applicable	Water solubility (-ies)	soluble
pH value at 20°C	9 – 10	Partition coefficient: n-octanol/water	not determined
Melting - / freezing point	not determined	Auto-ignition temperature	not determined
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 determined	Explosive properties	not explosive
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**

Slight reactivity

**10.2 Chemical stability**

Stable under recommended storage conditions. No decomposition associated with the proposed use. The product contains no additives or preservatives and is stable when stored undiluted in clean containers.

**10.3 Possibility of hazardous reactions**

No hazardous reactions known if used according to specifications.

**10.4 Conditions to avoid**

Contact with strong oxidants.

**10.5 Incompatible materials**

With strong oxidant agents like oxidant mineral acids, organic peroxides, organic water peroxides, elementary metals, exothermic reactions can occur.

**10.6 Hazardous decomposition products**

 Generation of toxic gases possible (CO, CO<sub>2</sub>). In the event of fire, see section 5.


**SECTION 11: Toxicological information**
**11.1 Information on toxicological effects**

The product can cause eye, skin or respiratory tract irritation at sensitive persons. Handle in accordance with good industrial hygiene practice and the usual precautionary measures for handling chemicals.

Acute toxicity:	
Acute oral toxicity (acc. EU B.1)	LD <sub>50</sub> > 2000 mL/kg (rat)
Acute dermal toxicity (acc. EU B.3)	LD <sub>50</sub> > 2000 mL/kg (rat)
Skin irritation (acc. EU B.4)	no irritable effect on skin (rabbit)
Eye irritation (acc. EU B.5)	no irritable effect on eyes (rabbit)
Respiratory or skin sensitisation (acc EU B.42)	no data available
Specific target organ toxicity - repeated exposure (acc. EU B.7)	28 day oral test (rat):NOAEL (No observed adverse effect level) 500 mg/kg/day
Carcinogenicity	no data available
Germ cell mutagenicity (acc. EU B.12/13/14)	not applicable
Reproductive toxicity	not applicable
Additional information	None

**SECTION 12: Ecological information**
**12.1 Toxicity**

The product is a fertilizer and therefore does not cause adverse effects in the environment if used according to the recommended dosage and conditions of use.

Aquatic toxicity	<b>Fish (<i>Poecilia reticulata</i>) acc. EU C.1:</b>	
	96h - LC <sub>50</sub> > 128 mg/l	96 hours NOEC = 128 mg/L
	<b>Dafnie (<i>Daphnia magna</i>) acc. EU C.2:</b>	
	48h - LC <sub>50</sub> > 116 mg/l	48 hours NOEC = 116 mg/L
	<b>Alga grow inhibition:</b>	No data available
	<b>Act. Sludge respiration inhibition (acc. EU C.11):</b>	EC <sub>50</sub> > 1'000 mg/L

**12.2 Persistence and degradability (acc. UE C.4-E und UE C.7)**

The substance is not easily biologically degradable. 2% decomposition within 28 days.

Abiotic decomposition - Hydrolysis related to pH function: under pH 4.7 and at pH 9 (25°C) the decomposition half time is longer than 1 year.

**12.3 Bioaccumulative potential (acc. UE A.8):**

No bio-accumulation.

**12.4 Mobility in the soil**

The product used in large quantities can contaminate ground and surface waters. Handle in accordance with good industrial hygiene and safety practice to prevent the spread of concentrate product and penetration into the soil and surface waters.

**12.5 Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not carried out.



## 12.6 Other adverse effects

No data available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Waste treatment	No dangerous waste. Follow the local and national regulations for the disposal. Agree exact waste code with waste disposal contractor.
Waste code	No data available
Contaminated packaging	Do not reuse empty containers. Dispose according the regulations in force.

## SECTION 14: Transport information

### 14.1 UN number

ADR/RID:	not applicable	IMDG:	not applicable	IATA:	not applicable
----------	----------------	-------	----------------	-------	----------------

### 14.2 UN Proper shipping name

ADR/RID:	no dangerous goods	IMDG:	no dangerous goods	IATA:	no dangerous goods
----------	--------------------	-------	--------------------	-------	--------------------

### 14.3 Transport hazard class(es)

ADR/RID:	not applicable	IMDG:	not applicable	IATA:	not applicable
----------	----------------	-------	----------------	-------	----------------

### 14.4 Packaging group

ADR/RID:	not applicable	IMDG:	not applicable	IATA:	not applicable
----------	----------------	-------	----------------	-------	----------------

### 14.5 Environmental hazards

ADR/RID:	no	IMDG:	Marine pollutant: no	IATA:	no
----------	----	-------	----------------------	-------	----

### 14.6 Special precautions for users

See sections 6-8.

### 14.7 Transport in bulk according to annex II of MARPOL73/78 and the IBC code

Not applicable.

### 14.8 Transport / additional disclosures

No dangerous goods according to regulations mentioned above. Not falling within the scope of Directive 96/86/EC implemented by the German legislation concerning the transport of dangerous goods by road (GGVS Gefahrgutverordnung Strasse). Therefore no special precautions are required.

## SECTION 15: Regulatory information

This safety data sheet complies with the requirements of Article 31 of Regulation EC No 1907/2006 (REACH regulation) and the information contained herein is displayed in the order prescribed in Annex II to that regulation, as amended 2010. The substance has not been safety assessed. 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, to make available to those who are required to use this product all necessary personal protective equipment and to ensure that such equipment is used.



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

EU regulations	EC Directive No. 2037/2000, EC Directive No. 850/ 2004, EC Directive No. 689/2008, EC Directive No. 648/2004 not applicable. Not limited according to section VIII of the directive (EG) 1907/2006: Commission Regulation 453/2010/EC amending Regulation 1907/2006/EC of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Hazard notes referred to section 2 and 3 of this MSDS: - Directive (EG) No. 1272/2008 not applicable - Directive (EG) No. 67/548/EWG (Hazardous Substance Directive) not applicable
German national regulations: Water hazard class:	Not classified according to German "BetrSichV" WGK0 - Generally not hazardous for water (self-rating).
Cautionary advise for label safety phrases:	Keep out of reach of children. Keep away from food, beverages and animal feed.

**15.2 Chemical safety assessment**

This substance has not been safety assessed.

**SECTION 16: Other information**

Changes since last issue	New release.
Training advice	Those who are employed in the use of this product must be given training which highlights the need to handle and use it only in the recommended manner and at all times make use of the prescribed personal protective equipment.
Safety data sheet contact person	Protan AG, Christian DOBERS, Tel. Nr. +423 375 15 25
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 GefStoffV: Gefahrstoffverordnung (German Ordinance on Hazardous Substances) BetrSichV; Betriebssicherheitsverordnung (German Regulation on Operational Safety)
Bibliographical references and data origins	Directives: Preparations directive (1999/45/EG) as last amended by Commission Directive (EG) No. 1907/2006. Substance Directive (67/548/EWG), as last amended by Commission Directive 2009/2/EG. REACH Directive (EG) No. 1907/2006, as last amended by Commission Directive (EU) Nr. 453/2010. Directive (EG) No. 1272/2008, as last amended by Commission Directive (EG) No. 790/2009.



### 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 BIO-PROTAN® Liquid Humus. This document relates to the original product in the state in which it is delivered and may not be valid for the formulation or combination with other materials or in any process. BIO-PROTAN® Liquid Humus has been developed 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.

The information in this document is reproduced according to the recommendation of the EFMA form (European Fertilizer Manufacturer's Association). The information does not pretend to be all-inclusive and is given to the best of our knowledge at the date of publication. Protan AG does not accept any liability with regard to the contents of this document and shall not be held liable for any damage resulting from unsafe handling or from contact with the product.

Publ. date: July 2015

Language: EN

© Protan AG, 2015

All product names are trademarks of Protan AG Company.

License granted to make unlimited paper copies for internal use only.

Reproduction is authorised provided the source is fully acknowledged in the form "Source: Protan AG,

<http://protan.li/>", and provided written notification is given to [info@protan.li](mailto:info@protan.li)

Material Safety Data Sheet / MSDS		Page 8 of 8		
Document:	BIO-PROTAN-Liquid-humus-MSDS.doc	Date of Issue:		Version # 1 of 12/07/2015
Issued by:	Quality control			

### Protan AG

Runkelsstrasse 38 . LI- 9495 Triesen

T +423 375 15 25 . F +423 375 15 26

[welcome@bioprotan.com](mailto:welcome@bioprotan.com)

[www.bioprotan.com](http://www.bioprotan.com)

This material safety data sheet shall be used in conjunction with the technical data sheet. All information and advice as well as presentations or publications in whatever form regarding possibilities of processing or using our products - also in respects of possible rights of third parties - is given to the best of our knowledge based on research work and experience. All provided information is non-binding and any liability on our part is excluded. It is the responsibility of everyone concerned to carry out own tests and experiments, knowing and applying all the regulations governing his activity and take all precautions necessary to fulfil the obligations concerning the use of hazardous and not hazardous products. Unless otherwise agreed in writing, our sales and delivery conditions apply accordingly.