



**MATERIAL SAFETY DATA SHEET**  
 According to Regulation (EC) No. 1907/2006  
 Version #2, Revision Date 2014/04/23

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**
**1.1 Product identifiers**

Product name	DIAMIN®Power
Product number	1158
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:	Agriculture, Fertilizer, Plant Strengthener
------------------	---

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

Company	Protan Aktiengesellschaft – Runkelstrasse 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 Regulation 1272/2008/EC.  
 This substance is not classified as dangerous according to EC 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	Mixture; Hydrolyzed Animal Protein in aqueous solution
Chemical name; Synonyms	Hydrolyzed Protein, animal; Hydrolysed Protein, water soluble
CAS No.:	100085-61-8 (Hydrolyzed Protein, animal, 55%)
EINECS No.:	309-203-1
Hazardous ingredients	No components need to be disclosed according to the applicable regulations.

Material Safety Data Sheet / MSDS		Page 1 of 8		
Document:	MSDS_DIAMINPower_#2_20140423.docx	Release:		Version #2 of 2014/04/23
		Replace:		Version #1 of 2010/08/09

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

If inhaled	Move concerned person to well-ventilated area if feels unwell. If keeps feeling unwell seek medical advice.
In case of skin contact	Wash off with soap and plenty of running water.
In case of eye contact	Flush eyes thoroughly with running water. Remove contact lenses.
If swallowed/Ingestion	Rinse mouth with water. Drink plenty of water. Never give anything by mouth to an unconscious person. Seek medical advice if swallowed in great quantity.

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

The most important known symptoms and effects are described in section 2.2 (labelling) and section 11.

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

There are no special measures known. Treat according to symptoms. In case of ingestion, it is possible to give activated charcoal in water or liquid paraffin medicine.

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

Suitable media	Liquid product is not flammable. Use <u>water spray</u> , CO <sub>2</sub> , alcohol resistant foam, dry chemical, depending on the materials involved in the fire.
Unsuitable media	Use <u>water jets</u> only to cool the surfaces of the containers exposed.

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

Nature of decomposing materials not known. Possible formation of toxic gases during heating or in case of fire.

**5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**5.4 Further information**


Dispose of fire 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. Evacuate the danger area. If necessary, consult an expert.

**6.2 Environmental precautions**

Do not let product enter drains. 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.

<b>Material Safety Data Sheet / MSDS</b>		Page 2 of 8		
Document:	MSDS_DIAMINPower_#2_20140423.docx	Release:	Version #2 of 2014/04/23	
		Replace:	Version #1 of 2010/08/09	

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

Prevent the spill or release from entering the sewer system. Recover the product for removal. Possibly absorb it with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Keep in suitable closed container for disposal in accordance with regulations.

### 6.4 Reference to other sections

For personal protection	see section 8
For disposal	see section 13

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

For general precautions, see section 2.2. 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 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. Do not store in open or unlabelled containers.
Storage compatibility	Stored separately from food and animal feed.
Additional disclosures on stock conditions	Store in a cool place, protect from frost. Keep away from sources of heat and direct exposure of sunlight.
Storage class	-
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 monitor. 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	Handle with protective goggles .Use tested and approved equipment for eye protection EN 166 (EU).
- Skin protection	Handle with protective gloves. Product does not require the use of chemical resistant gloves. PVC gloves as protection from splashes recommended. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it: For full and splash contact we advise the use of "Nitrile Rubber Gloves", minimum layer thickness of 0.11 mm.

Material Safety Data Sheet / MSDS		Page 3 of 8		
Document:	MSDS_DIAMINPower_#2_20140423.docx	Release:	Version #2 of 2014/04/23	
		Replace:	Version #1 of 2010/08/09	

- Body protection

**General and product-independent recommendation:**

Select gloves based on the physical characteristics of the job. The glove material has to be impermeable and resistant to the product / the substance / the preparation. Select the right glove material considering the permeability and degradation time of the gloves material as specified by the manufacturer. Inspect gloves before use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with the product. Dispose contaminated gloves after use in accordance with applicable laws and good laboratory practice. Wash and dry hands. If the product is used in solution, or mixed with other substances, contact the supplier for approved gloves. This recommendation is advisory only. Evaluate recommendation by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by the customers.

Work clothing.

- Respiratory protection

**General and product-independent recommendation:**

Choose body protection in relation to work exposure, to the concentration and amount of dangerous substances and to the specific work place.

Unless the product is sprayed without adequate exhaust ventilation, respiratory protection is not required. We recommend AX Filter for short-term use and we suggest 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: Exposure controls/personal protection**
**9.1 Information on basic physical and chemical properties**

Appearance, form	liquid	Vapour pressure	not determined
Appearance, colour	amber dark	Vapour density	not determined
Odour	characteristic	Relative density	1.23 - 1.25 g/ml
Odour threshold	not applicable	Water solubility (ies)	soluble
pH value at 20°C	5-7	Partition coefficient: n-octanol/water	not determined
Melting - / freezing point	not determined / - 2 °C	Auto-ignition temperature	not determined
Initial boiling point and boiling range	100 °C	Decomposition temperature	not determined
Flash point	not applicable	Viscosity (dynamic at 20°C)	600-800 mPas
Evaporation rate	not determined	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**

No data available.





**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. You may see a slight precipitate without altering product quality.

**10.3 Possibility of hazardous reactions**

Stable under recommended storage conditions. 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 the event of fire refer to section 5.

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

Acute toxicity	Handle in accordance with good industrial hygiene practice and the usual precautionary measures for handling chemicals.
Skin corrosion/irritation	no data available
Serious eye damage or irritation	no data available
Respiratory or skin sensitisation	no data available
Germ cell mutagenicity	no data available
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	no data available
Specific target organ toxicity - single exposure	no data available
Specific target organ toxicity - repeated exposure	no data available
Aspiration hazard	no data available
Additional information	RTECS No. not available. The product is free of pathogens in accordance with 1999/129/EC. The product is not subject to classification according to 1272/2008/EC (GHS regulation) and according to the German Ordinance on Hazardous Substances (Gefahrstoffverordnung (GefStoffV)). 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.

<b>Material Safety Data Sheet / MSDS</b>		Page 5 of 8		
Document:	MSDS_DIAMINPower_#2_20140423.docx	Release:	Version #2 of 2014/04/23	
		Replace:	Version #1 of 2010/08/09	

**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. Low concentrations discharged correctly into adapted biological sewage treatment plants do not interfere with degradation activity of activated sludge. No further relevant data available.

**12.2 Persistence and degradability**

The organic substances contained in the product are completely biodegradable. No further relevant data available.

**12.3 Bio accumulative potential**

No data available.

**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 in order 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**

Generally not hazardous for water. No further relevant data available.

**SECTION 13: Disposal considerations**
**13.1 Waste treatment methods**

Unused product

Recommendation: follow the local regulations for the disposal and dispose through a licensed disposal company. Handle in accordance with good industrial hygiene practice and the usual precautionary measures for handling chemicals.

*“European Waste Catalogue and Hazardous Waste List” classification:*  
2000/532/EC  
2001/118/EC  
2001/119/EC  
2001/537/EC

02 00 00 WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING  
02 01 00 wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing  
02 01 02 animal-tissue waste

Contaminated packaging

Dispose of as unused product

**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

Material Safety Data Sheet / MSDS

Page 6 of 8

Document: MSDS\_DIAMINPower\_#2\_20140423.docx

Release: Version #2 of 2014/04/23

Replace: Version #1 of 2010/08/09



**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**

Not applicable.

**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.

**14.9 UN "model regulation"**

-

**SECTION 15: Regulatory information**

Not a hazardous substance or mixture according to EC Directives 67/548/EEC and 1999/45/EC. 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. 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	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) Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC Safety Data Sheets provided by suppliers of component substances.
German national regulations	Not classified according to German "BetrSichV" Water hazard class: generally not hazardous for water.
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**

For this product a chemical safety assessment is not required or was not carried out.

**SECTION 16: Other information**

Changes since last issue	Last release dated 2010/08/09. Changes in the following SECTIONS: - all - This version replaces all earlier.
Recommended restrictions on use	This product should be stored and handled in accordance with guidance given above. Use the substance only in the recommended manner and in conformity with all legal requirements.

<b>Material Safety Data Sheet / MSDS</b>		Page 7 of 8		
Document:	MSDS_DIAMINPower_#2_20140423.docx	Release:	Version #2 of 2014/04/23	
		Replace:	Version #1 of 2010/08/09	

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)

**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 DIAMIN®Power. 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. DIAMIN®Power 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: April 2014

Language: EN

© Protan AG, 2014

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)

<b>Material Safety Data Sheet / MSDS</b>		Page 8 of 8		
Document:	MSDS_DIAMINPower_#2_20140423.docx	Release:	Version #2 of 2014/04/23	
		Replace:	Version #1 of 2010/08/09	

**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.