


MATERIAL SAFETY DATA SHEET

 According to Regulation (EC) No. 435/2010 and No. 1272/2008
 Version #4, revised on the 17/02/2017

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

Product name	AMINOPOOL®LS
Product number	1550
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
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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	info@protan.li

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 and subsequent amendments.

2.2 Label elements


The product is not subject to any labelling obligation/classification according to EC Directives 1272/2008/EC and the 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	Hydrolysed Keratin Powder
Chemical name; Synonyms	Hydrolysed protein, water soluble
CAS-No.:	69430-36-0
EINECS No.:	274-001-1
Hazardous ingredients	No components need to be disclosed according to the applicable regulations

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

If inhaled	If breathed in, move concerned person to well-ventilated area. If not breathing give artificial respiration. 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	Remove contact lenses. Flush eyes thoroughly with running water.
If swallowed/Ingestion	Never give anything by mouth to an unconscious person. 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

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	Product is not flammable. Use <u>water spray</u> , CO ₂ , 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	Avoid dust formation. Avoid breathing product dust. Leave the danger area.
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.

6.3 Methods and material for containment and cleaning up

Sweep up and shovel. Recover the product for removal. Keep in suitable closed container for disposal in accordance with the regulations.

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6.4 Reference to other sections

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

SECTION 7: Handling and storage
7.1 Precautions for safe handling

Technical measures/ precautions:	No special precautions required when you use and process the product for the identified purpose (section 1.2.). Product is a fine hygroscopic powder. Provide appropriate exhaust ventilation at places where dust forms. Avoid breathe in and contact with eyes, skin and clothing. When diluting, do not stir the product into standing water. Don't pour it all on at once to avoid airborne dust.
General occupation hygiene	Handle in accordance with good industrial hygiene practice: do not eat, drink or smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and containers	Normal storage conditions without particular incompatibilities. Keep <u>dry</u> in <u>closed</u> original packaging. Do not store in open or unlabelled packaging. Avoiding possibility of bag falls or handling damages.
Storage compatibility	Store separately from food and animal feed.
Additional disclosures on stock conditions	Store in a cool, dry and well ventilated place.
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

Handle in accordance with good industrial hygiene practice and the usual precautionary measures for handling chemicals. Ensure good ventilation in the workplace through effective local aspiration or ventilation.

Personal protective equipment:	Product is not a hazardous substance. Nevertheless, avoid contact with eyes and prolonged contact with skin to prevent any irritation. In case of prolonged contact, wear protective clothing, goggles, gloves and respiratory protection against product typical airborne dust.
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- Eye/face protection

Handle with tightly sealed goggles. Use tested and approved equipment for eye protection EN 166 (EU).

- Hand protection

Product does not require the use of chemical resistant gloves. In case of repeated and prolonged contact, wear gloves. For full and splash contact, we advise the use of "Nitrile Rubber Gloves (NBR)", minimum layer thickness of 0,11 mm.

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.

- Skin and body protection

Dust proof work clothing recommended for long-term exposure.

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.


- Respiratory protection

Respiratory protection is not required. AX Filter recommended for short-term use. For long-term exposure and where protection from nuisance levels of dust are desired, use type P1 (EN 143) dust mask. Use components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

SECTION 9: Exposure controls/personal protection

9.1 Information on basic physical and chemical properties

Appearance, form	powder	Vapour pressure	not determined
Appearance, colour	beige, brown	Vapour density	not determined
Odour	characteristic	Relative density	550 - 600 kg/m ³
Odour threshold	not determined	Water solubility (ies)	soluble
pH value (10% water solution 20°C)	4 – 5	Partition coefficient: n-octanol/water	not determined
Melting - / freezing point	not determined	Auto-ignition temperature	not determined
Initial boiling point and boiling range	not applicable	Decomposition temperature	not determined
Flash point	not applicable	Viscosity (dynamic at 20°C)	not applicable
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 determined	Vapour pressure	not determined

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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.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Avoid moist warehousing conditions. Close packaging after use.

10.5 Incompatible materials


In water solutions 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	no data available
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 identified as 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 accord 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

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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.

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 conducted

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

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

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.

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

The product is not 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).

14.6 Special precautions for users

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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"

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SECTION 15: Regulatory information
15.1 Safety, health, and environmental regulation specific for the substance or mixture

Not a hazardous substance or mixture according to Commission Regulation (EC) 1272/2008.

Production and sale of AMINOPOOL®LS follows the European Directives:

Regulation (EC) No. 1069/2009 laying down health rules concerning animal by-products not intended for human consumption. 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. 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.

15.2 Chemical safety assessment

No chemical safety assessment available. This substance is classified as non-hazardous according to Regulation (EC) 1272/2008 (CLP).

SECTION 16: Other information

Changes since last issue	Last release dated 24/04/2014. Changes in the following SECTIONS: SECTION 8 SECTION 14 SECTION 15 SECTION 16 This version replaces all earlier.
General bibliography	Regulation (EC) 453/2010/EC of the European Parliament amending Regulation 1907/2006/EC (REACH regulation) Regulation (EC) 1272/2008 (CPL regulation) "European Waste Catalogue and Hazardous Waste List" classification 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 and animal feed.
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

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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)
 CLP: Classification, Labeling and Packaging of substances and mixtures

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 AMINOPOOL®LS. 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. AMINOPOOL®LS 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 damage resulting from unsafe handling or contact with the product.

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