

Brand quality feed grade urea



**PIARUMIN<sup>®</sup>**

The protein booster for ruminants



**skw.**  
PIESTERITZ

*The future of livestock farming.*

# PIARUMIN® – improved performance – optimal feed rations

Because of evolutionary development, ruminants can use non-protein nitrogen compounds to make proteins. This ability originates from their survival strategy that allows them to make sufficient use of energy sources even under difficult conditions.

Together with ammonium salts from their food, special microbes convert urea into proteins. Ammonia is released from the urea in the rumen to do this. This in turn is used as a source of nitrogen to produce the bacterial proteins. Now as ever, the nutritional balance of animals is improved.

## Taking a closer look

Appropriate animal nutrition is the prerequisite for economically successful livestock farming. PIARUMIN® is a brand quality feed grade urea [3d1] and a valuable supplement. It is a non-protein nitrogen compound with a nitrogen content of at least 46.5 percent. A negative ruminal nitrogen balance can be offset by the use of PIARUMIN®.

## Conditions for the optimum use of PIARUMIN®

- ✓ Ruminants must have a developed rumen.
- ✓ Readily available energy from carbohydrates.
- ✓ Even distribution in the daily ration.
- ✓ Adherence to statutory maximum amount.
- ✓ Young animals which do not ruminate yet must not be given any feed grade urea.

## The nitrogen source with added value

PIARUMIN® is a nitrogen source with added value. It can be integrated into the composition of the rations for ruminants and substitute or supplement a physiologically-based portion of native protein sources.

- By using PIARUMIN®, the proportion of beneficial and digestible crude protein is increased and feed intake is stimulated as a result.
- PIARUMIN® in combination with grain offers an alternative to protein-rich concentrates. The protein supply is thereby ensured while the energy concentration of the feed mix is significantly increased.
- PIARUMIN® is free from genetic engineering (GMO compliant)

## Feed value\* of PIARUMIN®

- 46.5 g nitrogen = 290.6 g crude protein, at 70 percent utilisation = 203.4 g crude protein = 2.44 l milk
- 100 percent broken down in the rumen, no bypass protein
- 1 kg soya bean meal = 1.25 kg rapeseed meal = 0.222 kg feed grade urea [3d1]

\*Source: M. Hoffmann, LKV Sachsen, 2012

# Brand quality feed grade urea



With PIARUMIN® you get a feed grade urea [3d1] of “assured origin”, manufactured at a FAMI-QS certified production facility in Germany [FAM-0325]. In addition to strict quality control, we continuously improve our processes and are therefore always one step ahead of “good agricultural practice”

PIARUMIN® is an integral part of our strict quality control regime thanks to our in-house analytical control laboratory. Undesirable substances such as PCDF/D, PCB, aflatoxins and others in accordance with Directive 2002/32/EC on undesirable substances in animal feed are regularly monitored by our in-house laboratory and external laboratories.

## **Safety and transparency resulting from certification systems for feed safety**

Feedstuffs share responsibility for the safety of food of animal origin. Consumers expect high-quality food that is produced safely. Consistent quality assurance from producers to the animals themselves is indispensable to achieve this. SKW Piesteritz as the manufacturer of PIARUMIN® uses qualified and certified processes (FAMI-QS; ISO 9001:2005; ISO 14001:2015) to ensure consistently high quality.

## **FAMI-QS certification [FEFANA, Brussels]**

The production process for PIARUMIN® is certified in accordance with FAMI-QS (Feed Additives and preMIXtures Quality System). FAMI-QS is a global quality and feed safety management system for feed additives and is supplemented by a comprehensive HACCP concept.

## **QS certification [QS GmbH, Bonn]**

Together with all of the partners along the value chain, the QS test system takes care of food safety from the farmer right through to the supermarket shelves. The QS mark is based on an assurance system for food from conventional production and is awarded for the establishment of quality assurance at each step. Participation as a system partner in the QS programme places an obligation on us as a manufacturer to have our equivalent quality management system for feed safety audited by an accredited institute.



### **GMP+ certification**

**[GMP+ International, CL Rijswijk ZH]**

GMP+ entails multiple B documents which in their entirety stand for safe feed. From B1 (Production, Trade and Services) and B4 (Transport) to B11 (Protocol for GMP+ registration for Laboratories), the various process steps of the GMP+ are clearly subdivided. This chain approach makes the GMP+ feed certification scheme so unique and easy to adapt. It is therefore also possible to certify the entire supply chain in accordance with GMP+ or just individual process steps. By integrating ISO standards, HACCP and other elements, the GMP+ system has developed into a fully-fledged certification system for feed over the last few decades. As a result, safety, quality and sustainability are ensured for the entire chain or the respective process step.

PIARUMIN® is transported to customers in bulk exclusively by GMP+ B4.1 certified hauliers and is therefore secured without gaps in the supply chain.

### **All of the aforementioned certification schemes recognise each other.**

This means it is possible to supply a product manufactured at a FAMI-QS certified facility for GMP+ certified processing (principle of reciprocal recognition of certification schemes) and to use the product on a QS certified farm (participation as a system partner). It is essential that you are aware of which parts of the supplier's processes are certified in accordance with which standard. **Products that are not certified or gaps in certification jeopardise your processes and therefore your own certification.**

# Your added value



As Germany's largest producer of ammonia and urea, we think about how we can make our products more efficient on a daily basis. For us, efficiency is worth striving for not just from an economic point of view but also from an environmental one.

At the same time, consistent and high product quality is at the centre of our endeavours.

The benefits to you are our flexible logistics, a high level of product availability and communication on equal terms. We will always be happy to discuss your special requirements and find practical solutions together.

Feed grade urea is authorised in accordance with Commission Implementing Regulation (EU) No 839/2012, category 3d1.

Functional group: urea and its derivatives are a feed additive from the group of "nutritional additives" under feed law [3].

As a non-protein nitrogen compound, feed grade urea enhances low-protein feed rations such as maize silage, straw and late-cut grasses.

# Packaging units and storage

PIARUMIN® is supplied in prilled form in sacks, big bags or in bulk. It should be stored in a dry place. We recommend storing sacks and big bags on pallets. It goes without saying that packed goods are loaded securely.

PE sacks: filled quantity 25 kg, on CP1 pallets

Big bags: 500 kg and 1,000 kg, on CP1 pallets

Bulk goods: Bulk goods are only transported in silo trucks. Hauliers must demonstrate that they hold a GMP+ B4.1 certificate. PIARUMIN® is only transported in bulk in clean trucks with ECD (European Cleaning Document).

## Recommended use

Sensible nutritional use of PIARUMIN® can be determined by calculating the feed ration. The use of PIARUMIN® is particularly efficient with low-protein feed rations such as maize silage, straw or late-cut grass products. Typical uses are for dairy cow feeding, heifer rearing or bull fattening with mainly maize-based feed and a low or medium performance level of the animals.

PIARUMIN® may only be fed to ruminants with developed rumens. The amount used should be increased gradually over one to two weeks up to the maximum quantity so their metabolism can adjust to the change. Even distribution through the day is key to successful use. We recommend continuous mixing into the feed, preferably in a mixed ration.

Statutory maximum amount for feed grade urea [3d1]:

8,800 mg/kg complete feed, based on 88 % TM [maximum 30 % total nitrogen in the daily ration from feed grade urea]

## Product properties of PIARUMIN®

Urea content: \_\_\_\_\_ min. 99 %

Total nitrogen content: \_\_\_\_\_ min. 46,5 %

Biuret: \_\_\_\_\_ max. 1,0 %

Moisture: \_\_\_\_\_ max. 0,2 %

Arsenic: \_\_\_\_\_ max. 0,1 mg/kg

Lead: \_\_\_\_\_ max. 1 mg/kg

Mercury: \_\_\_\_\_ max. 0,1 mg/kg

Cadmium: \_\_\_\_\_ max. 0,1 mg/kg



**PIARUMIN®**



More information is available on the internet:  
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Questions?  
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