# Innovative ingredients to give your brand the edge





## Why Trouw Nutrition is the only reliable choice as your partner in premix.

















Operating from our ISO22000:2005 accredited premix plant, Trouw Nutrition is acknowledged worldwide as the industry's gold standard leader and innovator. Our unrivalled knowledge and expertise, supported by our unique Nutrace® food safety and traceability system, make us your only choice of expert partner in developing new ingredient innovations and delivering nutritional solutions tailored to your specific requirements.

## A history of success

Trouw Nutrition has supported the animal nutrition industry for over 80 years.

#### A future of innovation

We add value by developing feed technologies and ingredient innovations to meet the demands of the companion

We cater for all creatures great and small, from dogs to cats, from reptiles to birds, and from hamsters to horses.



## Safety is our first priority

Of all the ingredients that go into a pet food, the premix potentially poses the biggest risk. When you consider that every tonne of premix in your pet food can reach up to 20,000 pets, the issue of safety is one that food manufacturers cannot – indeed, dare not - ignore.

## Protecting your brand and your clients' animals

At Trouw Nutrition, we understand the extent to which a brand could be damaged if it was one of our customers' pet food products responsible for harming just one much-loved pet.

It's why we put such extraordinary effort into ensuring the safety and quality of our premixes, and it's also why - as your future partner – Trouw Nutrition can confidently offer you the assurance that no other premix supplier can... complete peace of mind.

What makes Trouw Nutrition different from any of our competitors is our approach to solutions innovation coupled with an uncompromising attitude to safety, accuracy and precision...



Tonne Premix

Tonnes of dog food

This estimate is based on 1 tonne of premix being used at an inclusion rate of 5kg per tonne of dry dog food which is then packed into 10kg bags and sold to 20,000 owners, each owning just one dog.

# The expertise to know. The knowledge to grow. The innovation to develop. The experience to deliver.

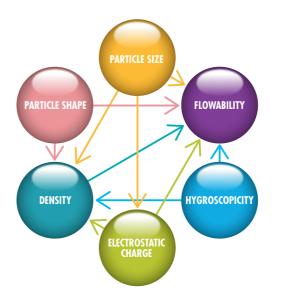
It's not just <u>what</u> we know that makes Trouw Nutrition unique – the science; the technology; the processes – but also the fact that we understand that our success is ultimately dependent on our customers' success.

The way we maintain our position as worldwide leader is by working <u>with</u> customers. So when you entrust your brand to Trouw Nutrition, we will constantly challenge you with new ideas in the form of practical, innovative and applicable nutritional solutions.

Every ingredient in a premix has different properties; however, it's the interactions between them that make the process so complicated.

## **Trouw Nutrition – learning and development**





Fortunately no other company has such a comprehensive knowledge of the factors involved, and with Trouw Nutrition, you can be assured that your premix will be perfect, with our on-site laboratory providing you with full cost/value analytics.

## Trouw Nutrition talks the language of premix

Here's a quick glossary of terms that help clarify the science behind the service that Trouw Nutrition offers.

### PREMIX

A homogenous mixture of one or more micro-ingredients, such as vitamins and trace elements, with a diluent and/or carrier. Premixes should be designed to enable uniform dispersion of these micro-ingredients within a pet food.

### BLEND

A homogenous mixture of one or more micro- and macroingredients with nutritional or functional properties, such as herbs and fruit extracts.

#### **BASEMIX**

A homogenous mixture containing a premix and various microand macro-ingredients used to promote uniform dispersion within a larger mix.

#### **SUPPLEMENT**

A feed used in conjunction with another to improve the nutritive value or performance of the diet.

#### CARRIER

A material to which micro- and macro-ingredients are added to carry the active particles by absorbing, impregnating or coating them.

#### **DILUENT**

A material to which micro- and macro-ingredients are added in order to reduce their concentration, providing a safer and more homogenous mix. A diluent may also function as a carrier.

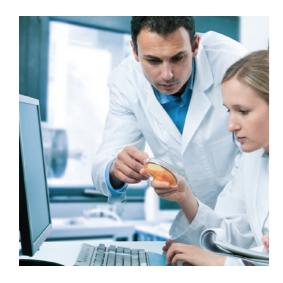
#### MICRO-INGREDIENTS

Substances used in small quantities and measured in the food in milligrams or micrograms.

## **MACRO-INGREDIENTS**

Substances used in greater quantities and measured in the food in grams or kilograms.

## Food safety



## Your number one concern and our number one priority

The growing complexity of the pet nutrition market makes it ever more critical that producers, retailers and pet owners can place absolute trust in the quality and food safety of all the ingredients used in the pet food, snacks and treats fed to companion animals.

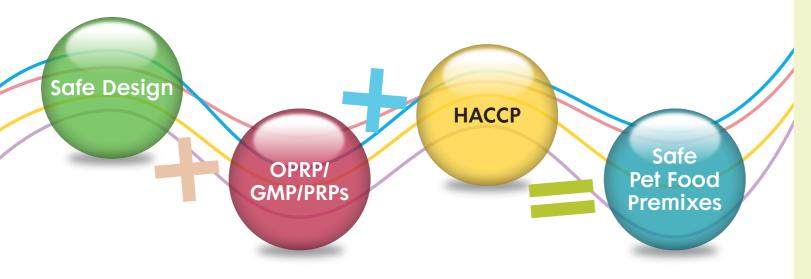
Our dedicated Pet Food Premix plant represents a key link in the supply chain from manufacturer to feeding bowl.

We recognise the risk to the health of companion animals that can arise through the supply of 'unsafe' premix. Although typically used at low inclusion levels, a faulty batch of premix could give rise to illness in many animals and require a product recall.

As well as causing distress to pets and their owners, such an incident would result in a loss of trust not just in the individual manufacturer implicated but in the entire industry as a whole.

So what measures does Trouw Nutrition have in place to ensure that this risk never becomes a reality?

## Committed to the supply of safe pet food premixes through a 3 step process



## Ingredient selection and quality assurance

At Trouw Nutrition, everything begins and ends with detail, establishing and adhering to the robust processes that make our operation the world leader in food safety and quality assurance:

- agreeing ingredient specification of the premix with the customer
- establishing a product quality agreement to ensure all ingredients are conformant and within regulatory limits, regardless of supplier
- continually checking and re-checking the ingredients



By strict adherence to these procedures, we can confidently ensure that our real-time risk management processes are fully global, up-to-date and capable of being quickly adapted to enable us to respond immediately to any new, emerging food safety risks.



## Ingredient intake controls and storage

Assuring the quality and provenance of ingredients is only the start of the process. The next stage is assuring that ingredients will only be accepted at the point of intake if they comply with the standards and documentation requirements set out during the approval process.

## **Checking procedures**

Ingredient identification

Comparison with reference samples

Packaging & pallet condition

Supplier-to-manufacturer approval

**Certificates of conformity** 

Analysis requirements re sampling plan

History of last 3 deliveries

NIR fingerprinting

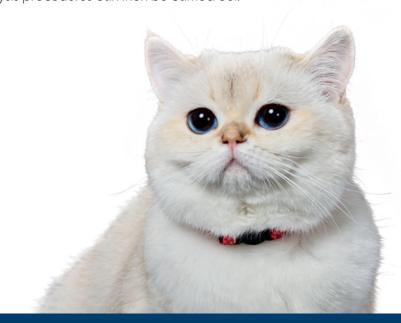
One batch per pallet (no mixed pallets)





At Trouw Nutrition, we ensure that all ingredients are given a unique batch number at intake, thereby ensuring that only the correct ingredient will be used, in accordance with the agreed product formulation, and that out-of-date material can be easily identified and rejected.

Our Quality System enables our Quality Control (QC) team to check easily what specific analysis is required on a batch of ingredient material when it arrives. Positive release and routine analysis procedures can then be carried out.



## **Formulation**

For the next part of the process – the formulation – expert individual knowledge of ingredients and premixing technology are the most critical factors, and for that reason Trouw Nutrition only employs the most highly qualified personnel.



Our formulation and quality teams work closely to check any new formulas (or new versions of existing formulas), trialing new ingredient combinations before they are released for manufacture.

This ensures that only the correct formula ever goes through to the manufacturing stage so that the correct product is made 'right first time', ensuring food safety and eliminating waste.

## **Checking procedures**

Species & life stage requirements

Potential interactions between ingredients

Handling characteristics

Vitamin stability & losses

Legislation

Ingredient weighments

Premix batch size

Pet food batch size

## Production





How do our customers benefit from having their premix created and manufactured in the UK's most highly-accredited pet premix production facility?

By using techniques developed in the pharmaceutical world, Trouw Nutrition has created a stand-alone pet premix production facility that is not only supremely versatile and highly automated but which provides the ultimate food safety environment.

So the answer is that our customers benefit from the absolute certainty that the premix formulation that has been agreed is the premix formulation that is delivered, 100% tested and verified, 100% precise and accurate and 100% food-safe.

In short, complete peace of mind.



Trouw Nutrition was the first pet premix supplier in the UK to achieve ISO 22000:2005 Food Safety Standard accreditation. More commonly found in human food facilities, this HACCP standard covers the entire production chain and enables constant interactive communication of key performance indicators.



We are also Sedex 4 pillar-accredited. Independently audited, Sedex covers labour standards, health & safety protocols, environmental management standards, ethical trading assurance and sustainability. For all those reasons, it's an accreditation which is increasingly being demanded by branded retailers.



Our on-site laboratories offer a one-stop-shop for premix and pet food analysis, covering NIR fingerprinting, 'undesirable' substances, mycotoxins and accelerated shelf-life testing, using UKAS-accredited methods (ISO 17025:2005).

Our sister company, Masterlab, further enhances our in-house analytical capability.

## Quality control and storage of finished products

### **Traceability**

Thanks to our unique and bespoke Nutrace® tracking system, Trouw Nutrition is able to tell you where every single particle of your premix comes from, thereby ensuring that nothing dangerous or unexpected can get into your pet food. The Nutrace® system ensures consistency throughout the entire production process, from raw material intake to final product delivery, using five standards:





## **Certified Quality & Food Safety**

To ensure the consistent formulation and production of high quality, reliable premixes. We have implemented international certifications at our plant including ISO, Sedex and UFAS, as well as internal systems and procedures.



## Ingredient and Supplier Assessment & Management

To ensure that nothing other than healthy, safe and sustainable raw materials are used for premix production, we only use approved ingredients and suppliers, with any new suppliers carefully evaluated before approval.



## **Monitoring & Control**

To ensure that our premixes are safe, we follow a harmonised and comprehensive global monitoring programme that covers 'undesirable' substances from raw materials to finished premixes. This also includes a rapid alert and follow-up system and an external notification procedure.



## **Risk Management**

To ensure that the correct procedures are in place for an effective and professional response should an emergency arise, Trouw Nutrition operates a comprehensive integrated risk management, food safety management and crisis management protocol so that correct decisions are made to minimise risks and handle adverse situations.



## **Tracking & Tracing**

To ensure rapid, efficient information flow between Trouw Nutrition, our suppliers and our customers, the Nutrace® tracking system traces premix batches back into their raw material components, providing accurate and accessible data on all ingredients, production processes and deliveries.



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