

# h4



## Tailor-made functional systems for poultry

Delicious trend products  
are easy to make with stabilising and  
texturing systems from Hydrosol



THE STABILISER PEOPLE

**hydrosol**



Poultry with economical solutions from Hydrosol – excellent flavour, texture and shelf-life.

## ***Healthy, high in protein and low in calories – moist, tender poultry with just the right functional systems***

Poultry is the world's fastest-growing meat category. Interest is likewise growing in new and trend-forward products that meet the highest requirements in terms of flavour, texture and economy. Hydrosol has developed a wide range of solutions for this, including injection brines for fresh chicken meat which give increased moistness and tenderness, outstanding brine retention and individually adjustable yield.

Hydrosol also offers special functional systems for chicken nuggets, ground meat products and schnitzel. These provide excellent binding and a juicy bite, and allow the use of vegetable ingredients in addition to meat, opening up many possibilities for innovative product ideas.

The portfolio further includes functional systems for the economic production and long shelf-life of poultry sausages. For poultry cold cuts from all-muscle tissue, Hydrosol offers tailored ingredient combinations for high-end premium products as well as cost-optimised recipes.



## **Curiosity and a passion for better foods**

We see ourselves not just as a supplier of innovative stabilising systems, but also as a source of ideas for new, trending products that become successful in close cooperation with us. Our growing team of food technologists and experts works daily to make food better by developing highly effective functional systems from combinations of individual ingredients, in constant communication with customers in many industries.

Long international expertise in the development of custom systems is the foundation on which we have become a worldwide supplier of first-class, application-specific stabilising and emulsifying systems.



## Research and development: The future belongs to synergies.

In developing exact, customer-specific stabilising and texturing systems, we are able to test to find the right combinations from among several hundred individual ingredients. It takes a great deal of specialist knowledge and experience to anticipate how individual raw materials will interact and develop the optimum synergistic effects.

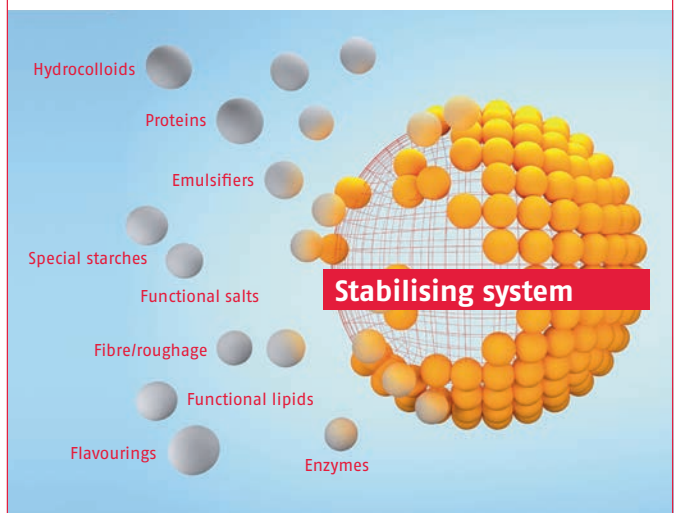


Product development and applications technology in over 3000 m<sup>2</sup> at our Technology Center in Ahrensburg near Hamburg, Germany.

### What you can expect from us:

- Development of tailor-made stabilising and texturing solutions
- Formulation of new recipes and recipe improvements
- Process improvements
- Versatile applications lab with extensive test facilities
- Assistance with production testing
- Education, training, seminars
- Help with new marketing concepts
- On-site consulting

### From single ingredient with single effect ...



... to Hydrosol stabilising system with multiple effects.

## We have innovative ideas – and excellent technology to implement them

In Wittenburg near Hamburg, Hydrosol operates one of the most advanced compounding lines in Europe. Precision mixing systems and advanced fluidised bed technology enable the production of customer-specific functional systems in the highest quality.

### Our standards and certifications:

- FSSC 22000
- Allergen management
- Kosher and halal management
- Organic seal



All the products in this flyer can be supplied in halal versions.



Multitalented – our fluidised bed system offers a wide variety of technical possibilities.



## Scalded sausages and cold cuts

Constant quality despite varying raw materials – with our stabilising systems, scalded sausage products come out firm and delicious every time. Our ingredient systems enable

cost-optimised recipes, extend shelf-life and minimise syneresis.

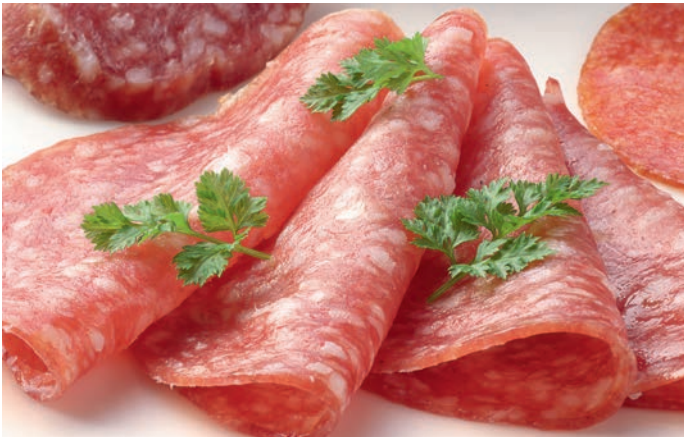
Application	Stabilising system	Properties	Dosage
Scalded sausage and bratwurst	PLUSmulson CS	Cutter aid for protein exposure and good bite	3-4 g/kg
For premium products	HydroTOP Firm-Tec LA	Improves bite and texture Low dosage	10-20 g/kg
For economical solutions	HydroTOP CS CMC	Improves bite and texture Higher protein content	25-28 g/kg
For cold cuts	HydroTOP Mix 50	Improves elasticity Ideal sliceability Reduces syneresis	3-6 g/kg

## Fresh meat

Special functional systems for fresh meat help it retain its natural fibres and give it a tender, moist consistency.



Application	Stabilising system	Properties	Dosage
Full muscle injection	PLUSstabil FM LV/HV	For moderate to high yields. Variable viscosity	22 kg/ 100 l brine
Plain or marinated	PLUSstabil DM WBC	For tender, consistent quality. Reduces cooking loss	10 kg/ 100 l brine
For restructured meat	Hydrogum NA 400 S	No enzymes Salt-tolerant system	2% in the final product



## Poultry cold cuts

Our injection brines are tailored to give the desired product characteristics, and enable the economic production of a wide

variety of cold cuts. They deliver outstanding consistency, ideal water binding and good slice adhesion.

Application	Stabilising system	Properties	Dosage
Poultry ham	HPUSstabil CM HAM 75	Improves yield, stabilises curing colour	6.5 kg/100 l brine
Restructured ham	HydroTOP Unibac 40	Wide variety of products, yield 60-200%	As needed
Premium Product	HSA Cold cuts	Special flavour Reduces syneresis	As needed

## Convenience

Our solutions for convenience and snack products improve the natural meat structure. The systems are very flexible in application, from nuggets, burgers and chicken wings to

vegan products. Good texture and great taste can be achieved by combining the products.

Application	Stabilising system	Properties	Dosage
Chicken burgers, nuggets	HydroTOP High Gel 30	Improves texture Freeze/thaw stable	As needed
Dry marinade for poultry parts	Naturom Magic Glace	Many flavour varieties Only with water and/or oil	As needed

## Raw sausage

Our solutions for raw sausage improve the cohesion of raw meat and fat inclusions, and facilitate the homogeneous distribution of both. They ensure the safe curing and

appetising appearance of raw sausage. Whether for fast curing or traditional fermentation, our solutions are individually designed for each desired outcome.

Application	Stabilising system	Properties	Dosage
Additive for salami/pepperoni	PLUSmulson PROT 300-CF	Single-type raw sausage products Stabilises liquid poultry fat	2% in the final product
All-in compound	Hydrolon Casal	Fast curing for semi-smoked products With/without seasoning	30 g/kg





## Emulsions

With our stabilising systems for fat emulsions, the fat inclusions characteristic of salami and mortadella can be made from vegetable fat. Replacing animal fats in this way significantly

cuts production costs. These products are also suitable for stabilising meat and meat preparations.

Application	Stabilising system	Properties	Dosage
Gelling, heat-stable fat emulsions	PLUSmulson PROT 300-F	For MDM, chicken skin and veg. oils	1:16:32 (Emulsifier: Fat: Water)
Gives firm, heat-stable emulsions	PLUSmulson F-03	For MDM, chicken skin and veg. oils	1:8:12 (Emulsifier: Fat: Water)

## Vegan alternatives

Hydrosol's all-in compounds for vegan cold cuts and for scalded sausage alternatives provide firm bite, authentic

mouth feel, appetising appearance and a pleasing basic seasoning.

Application	Stabilising system	Properties	Dosage
All-in compound	HydroTOP VEGAN SF	Outstanding texture All-vegetable system	depends on product
Vegan, soy-free hot dogs	HydroTOP VEGAN HT	Outstanding texture, no soy	21% in the final product





## Seasoning

Seasoning and stabiliser in one – these stabilising systems from Hydrosol enriched with flavourings and seasonings

enable individual product tuning.

Application	Stabilising system	Properties	Dosage
Many possible uses	Naturom TopNAT	Onion extract Extends the typical flavour	20 g/kg in the final product
Hot dogs and sausages	Naturom Wiener Würstchen	Classic seasoning preparation	5–7 g/kg
Ideal for poultry cold cuts	Naturom BM	Harmonious seasoning preparation	4–5 g/kg

## Preservation

Hydrosol freshness retainers for raw and pasteurised meat and sausage products are antibacterial and preservative, to

help meat and sausage retain their appetising colour and good flavour.

Application	Stabilising system	Properties	Dosage
Many possible uses	Hydrolon Super	Neutral flavour Easy to use	3 g/kg
Preservative	Hydrolon Fresh NI 21	Many uses, especially suited to heat-treated products	5 g/kg
Preservative	Hydrolon Fresh TA 21	Preservative and anti-oxidant effect, improves colour retention of meat	3 g/kg
Preservative	Hydrolon Fresh BS	Synergies with other preservatives, suitable for surface treatment	2 g/kg



# What can we do for you?



We are the Stabiliser People – your experts for tailor-made solutions for poultry. Hydrosol is an international company with solid growth and a worldwide network of subsidiaries. We develop and produce custom stabilisation systems for meat and sausage products, fish products, deli and ready meals, dairy products, ice cream and desserts, beverages, and vegan and vegetarian alternatives.

## Hydrosol at a glance:

- International market expertise in texturing systems
- Pilot plants for meat, fish, deli foods, milk, ice cream and spray drying
- State-of-the-art manufacturing with fluidised bed technology for agglomerated products
- A member of the owner-operated Stern-Wywiol Gruppe
- 40 years of experience in applications research

### Germany

**Hydrosol GmbH & Co. KG**  
Kurt-Fischer-Strasse 55  
22926 Ahrensburg, Germany  
Tel.: +49 (0) 41 02 / 202-003  
Fax: +49 (0) 41 02 / 202-030  
info@hydrosol.de  
www.hydrosol.de

### France

**Ingredience**  
30 Boulevard Belle Rive  
92500 Rueil Malmaison, France  
Tel.: +33 1 47 08 58 93  
info@ingredience-food.com  
www.ingredience-food.com

### Mexico

**Stern Ingredients, S.A. de C.V.**  
Guillermo Barroso No. 14,  
Ind. Las Armas, Tlalnepantla,  
Edo. Méx., C.P. 54080, Mexico  
Tel.: +52 (55) 5318 12 16  
Fax: +52 (55) 5394 76 03  
info@sterningredients.com.mx  
www.sterningredients.com.mx

### Turkey

**Stern Ingredients Turkey**  
**Gıda Sanayi ve Ticaret A. Ş.**  
/1 Sokak No:25  
Atatürk Organize Sanayi Bölgesi  
35620 Çiğli / İzmir, Turkey  
Tel.: +90 232 325 20 01  
Fax: +90 232 325 20 06  
info@sterningredients.com.tr  
www.sterningredients.com.tr

### China

**Stern Ingredients (Suzhou) Co., Ltd.**  
Block 9, Unit 1, Ascendas Linhu  
Industrial Square, 1508 Linhu Avenue,  
Fenhu Economic Development Zone,  
215211 Wujiang, P.R. China  
Tel.: +86 / 512 6326 9822  
Fax: +86 / 512 6326 9811  
info@sterningredients.com.cn  
www.sterningredients.com.cn

### India

**Stern Ingredients India Private Limited**  
211 Nimbus Centre, Off Link Road  
Andheri West  
Mumbai 400053, India  
Tel.: +91 - 22 - 4027 5555  
Fax: +91 - 22 - 2632 5871  
info@sterningredients.in  
www.sterningredients.in

### Russia

**KT "000 Stern Ingredients"**  
Sverdlovskaya naberezhnaya 38, liter "V"  
195027 St. Petersburg, Russia  
Tel.: +7 (812) 319 36 58  
Fax: +7 (812) 319 36 59  
info@sterningredients.ru  
www.sterningredients.ru

### Ukraine

**Stern Ingredients Ukraine LLC**  
Kharkivske chaussee 201-203  
post 3 / office 605  
02121 Kiev, Ukraine  
Tel.: +38 (044) 383 01 70  
info@sterningredients.com.ua  
www.sterningredients.com.ua

### Malaysia

**SternMaid Asia Pacific Sdn. Bhd.**  
No. 14, Jalan Teknologi Perintis 1/3  
Taman Teknologi Nusajaya  
79250 Iskandar Puteri  
Johor Darul Takzim, Malaysia  
Tel.: +60 (0) 7 / 522 6000  
Fax: +60 (0) 7 / 522 6999  
info@sternmaid.com.my  
www.sternmaid.com.my

### Singapore

**Stern Ingredients Asia-Pacific Pte Ltd**  
No. 1 International Business Park  
The Synergy # 09-04  
Singapore 609 917  
Tel.: +65 / 6569 2006  
Fax: +65 / 6569 1156  
info@sterningredients.com.sg  
www.sterningredients.com.sg

### USA

**SternMaid America LLC**  
3565 Butterfield Road, Unit 111  
Aurora, IL 60502, USA  
Tel.: +1 (630) 270-1100  
Fax: +1 (630) 270-1108  
contact@sternmaid-america.com  
www.sternmaid-america.com