

Complete Care
Competence

Your System Partner for Laboratory Animal Science



SAFE

COMPLETE CARE COMPETENCE

Diets
Custom Diets
Bedding
Enrichment
Services

DIETS

CUSTOM DIETS

ENRICHMENT

BEDDING

SERVICES



Complete Care Competence

SAFE® Complete Care Competence, your system partner for laboratory animal science, offers complete solutions for your research work. Experience the difference and benefit from the manufacturer's competence in diets, custom diets, bedding and enrichment, dedicated to laboratory animal science.

Quality. Reliability. SAFETY.

Competence Center Laboratory Animal Science of the JRS-Group

After a long-term strategic partnership, the family-owned enterprise JRS, J. Rettenmaier & Söhne GmbH + CO KG acquired in 2017 the well-established producer of diets and custom diets, SAFE Diets. With its comprehensive manufacturer's competence, JRS is the only company worldwide able to offer the complete range of consumables for laboratory animal science from own production. The well-known brands LIGNOCEL®, ARBOCEL® Hygienic Animal Bedding / Enrichment and SAFE Diets are now available under the strong brand SAFE® Complete Care Competence.







Premium Service Partner

First premise of SAFE® is to offer safe, standardized products of the highest quality for reproducible research results. As an all-encompassing system partner, SAFE® has a comprehensive performance spectrum: selected premium raw materials, customized process development by the R&D department, efficient high-quality manufacturing process and global availability due to worldwide presence and logistics.



One-Stop Shopping

- complete care solutions: diets, custom diets, bedding, enrichment and services
- global sales and logistics structure
- comprehensive service concept



Manufacturer's Competence

- own production of diets, custom diets, bedding and enrichment
- dedicated plants for consumables for laboratory animal science
- advanced production technologies and strict quality assurance system
- in-house research and individual product development



Innovation Partner

- permanent innovation force: SAFE® R&D and Technical Competence Center
- active network with animal care scientists and animal care takers, researchers and veterinarians from universities, national health institutes and pharmaceutical companies



Global SAFE®

- global availability, service and consulting
- own sales and logistics structure worldwide
- comprehensive technology and service network



 **SAFE**
COMPLETE CARE COMPETENCE

Diets
Custom Diets
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Services



Certified Quality and Safety

The quality standards at SAFE® are way higher than the sector averages. SAFE® products are certified by independent, external institutes. Furthermore only certified raw materials from sustainable farming are sourced.

The production takes place in a completely closed process, according to the strict criteria of the DIN EN ISO 9001 and HACCP standards and following the GMP and GLP guidelines.

The ISO-certified environmental and energy management systems are an active contribution of SAFE® to protect the environment.

- dedicated plant
- certified raw material
- certified production
- closed process chain
- controlled quality



Plant France



Plant France



Plant Germany
Plant France



Plant France



Plant Germany



Plant Germany

RESPONSIBILITY



Future-oriented and Resource Conserving – Just Like Your Studies !

- ISO certified Energy Management System
- Energy from sustainable resources
- Raw materials from sustainable cultivation
- ZERO-Waste production policy
- Reduction of transport effort
- Avoidance of packaging waste

ENERGY FROM SUSTAINABLE RESOURCES



Biomass Power Plant at SAFE® Bedding (Germany)

SAFE® is taking advantage of the many opportunities offered by alternative energies and thereby reducing its dependence on fossil fuels. A dedicated biomass power plant for electricity generation has been installed at the Rosenberg site in Germany, which saves 13,000 tons of CO₂ annually. The heat generated here is used for the drying process of the bedding production.

Our certified energy management system creates savings throughout the whole company and ensures that the energy transition continues. The photovoltaic system at the diets production site in France generates a significant amount of electricity, helping us to reduce our consumption of energy from conventional sources.

HIGH QUALITY RAW MATERIALS FROM SUSTAINABLE CULTIVATION

Sustainability begins with the purchase of raw materials, for which SAFE® follows its own strict standards in all areas: selected woods exclusively from responsible forestry. The ZERO-Waste policy ensures that 100 % of the raw material is used during the production process.



RESOURCE SAVING WAYS

By using regional raw material sources from SAFE®'s immediate surroundings, transport distances are shortened. In the manufacturing process, all processing steps – from raw material to storage of the final product – are carried out in one place.

SAFE®'s central location in Europe ensures the most economical and ecological routes to raw material and customers.



AVOIDANCE OF PACKAGING WASTE



SAFE® Diets reduces plastic packaging waste by using strong paper layers made from FSC certified paper.



In the near future, SAFE® Bedding will also be offered in paper packaging.

Have you already discovered more of SAFE®'s sustainable innovations?



SAFE® compact –
Preportioned Enrichment
Innovation: saves time,
reduces transport and
storage space.

SAFE® hydro –
DIY Water Gel:
avoids the transport of
water around the globe.





SAFE® Complete Care Competence



DIETS



CUSTOM DIETS



BEDDING



ENRICHMENT



SERVICES



Premium Scientific Diets



For the Security of your Research

For laboratory animal diets, the nutritional factor is crucial and has to be reliable and constant.

For many years, SAFE® dedicates themselves to provide safe and high-quality diet solutions for research without compromises.

- dedicated plant: exclusively scientific animal diets
- fully traceable components from constant reliable sources
- products made from cereals of baby food quality
- expertise in production of standard diets and custom diets
- controlled quality with food and health certifications
- innovation partner with own R&D and laboratories

Compliance with Highest Scientific Standards in Diets Production

SAFE® Production for scientific animal diets is regularly evaluated by the Food Industry Department France of the BUREAU VERITAS GROUP.

Inspected and approved:

- production plant exclusively dedicated to the production of premium diets for scientific animals
- no cross-contaminations with other diets (farm animals, zoo animals or pets)
- production following the GMP and GLP guidelines
- consistent and selected cereals of baby food quality from controlled origin
- diets free of undesired substances for biomedical research applications (drugs, coloring agents, preservatives, flavors)
- formulation and production of special and purified diets
- scientific and analytical support for international research centers
- box by box irradiation process





High Quality Ingredients

All ingredients are of highest quality to ensure consistent product characteristics.



- use of baby food cereals ensures highest food security standards and minimizes contaminants like mycotoxins, pesticides and heavy metals
- ingredients of highest quality secure superior digestibility and appetizing factors

Fixed Formula & Mastered Process

Constant diet formula and mastered processes guarantee long-time comparability of studies.



- once a diet recipe has been designed and approved, it remains fixed
- proven production environment in dedicated plant
- no cross-contamination during production process and logistics
- mastered production processes and strict metrology

No Additives

The SAFE® scientific diet production equipment is used exclusively for scientific animal diets. Undesirable substances are banned from the production site.



- no drugs, no artificial color, no preserving agents, no antioxidants, etc.
- extensive analysis and traceability sheets for all components and ingredients

Dedicated Plant

The SAFE® plant (Augy, France) is specially designed for the production of scientific diets. Risks of cross-contaminations during the process are systematically excluded.



- exclusive production of scientific diets: no feed for farms, zoos or pet food
- latest engineering technology for highest quality standard on the market
- use of technical systems to avoid risks: pneumatic transport, thermic treatment, stainless steel equipment, centralized vacuum cleaning system, etc.
- extensive cleaning processes prevent the products from contaminations

Monitoring and Controls

In order to ensure stable nutritional values and the lowest possible bioburden, SAFE® maintains an all-encompassing process control:



- extensive analysis (more than 35,000 per year) and traceability for all ingredients
- monitoring and protection against contaminants, such as a wide range of Xenobiotics

Premium Scientific Diets

 **Vegetal Diet**
(free from animal proteins)

 **Animal Protein Diet**

 **Autoclavable Diet**

RODENTS – BREEDING



SAFE® A03

Rats, Mice, Hamsters
breeding diet



SAFE® D03

Rats, Mice, Hamsters
breeding diet
autoclavable



SAFE® A30

Rats, Mice, Hamsters
breeding vegetal diet



SAFE® D30

Rats, Mice, Hamsters
breeding vegetal diet
autoclavable



RODENTS – MAINTENANCE



SAFE® A04

Rats, Mice, Hamsters
maintenance diet



SAFE® D04

Rats, Mice, Hamsters
maintenance diet
autoclavable



SAFE® A40

Rats, Mice, Hamsters
maintenance vegetal diet



SAFE® D40

Rats, Mice, Hamsters
maintenance vegetal diet
autoclavable



RODENTS – UNIVERSAL: Maintenance + Breeding



SAFE® 105

Rats, Mice, Hamsters
universal diet



SAFE® D113

Rats, Mice, Hamsters
universal diet
autoclavable



SAFE® 150

Rats, Mice, Hamsters
universal vegetal diet
low phytoestrogen



SAFE® D131

Rats, Mice, Hamsters
universal vegetal diet
autoclavable
low phytoestrogen



RODENTS – LONG TERM



SAFE® 132

Rats, Mice, Hamsters
universal diet



SAFE® D132

Rats, Mice, Hamsters
universal diet
autoclavable



SAFE® A05

Rats, Mice, Hamsters
long term diet
low phytoestrogen



SAFE® D05

Rats, Mice, Hamsters
long term diet
autoclavable
low phytoestrogen



RODENTS – TRANSGENIC ANIMALS



SAFE® R03T-25

Rats, Mice, Hamsters
breeding diet
small pellet (4.5mm)



POULTRY



SAFE® 115

Poultry
grower diet



GUINEA PIGS



SAFE® 114

Guinea pigs
breeding diet



SAFE® 106

Guinea pigs
maintenance diet



RABBITS



SAFE® 104

Rabbits
breeding diet



SAFE® 110

Rabbits breeding and
maintenance diet



SAFE® 111

Rabbits
universal diet



SAFE® 112

Rabbits
maintenance diet



DOGS



SAFE® 125

Dogs
maintenance diet



SAFE® 326

Dogs
maintenance extruded diet



SAFE® 127

Mini pigs
maintenance diet



MINI PIGS

PRIMATES



SAFE® 107

Primates
diet

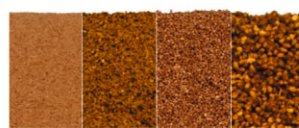


SAFE® 307

Primates
extruded diet



ZEBRAFISH



SAFE® Caviar

Zebrafish
research diet
several granulometries

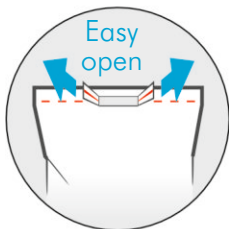


For all Diets Available

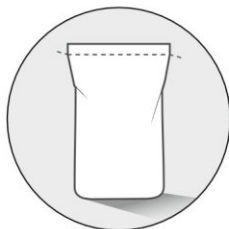
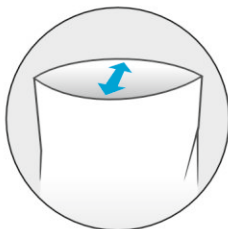
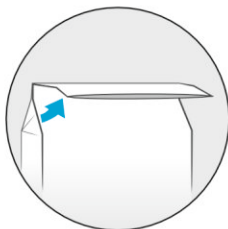
- irradiation box by box
- different pellet sizes
- powdered form
- wide range of packaging options

SAFE® rodent standard diets do not contain alfalfa.

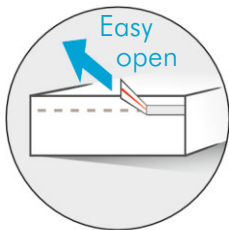
PAPER BAG FOR DIETS



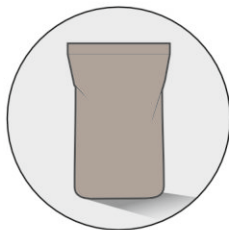
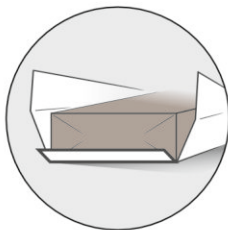
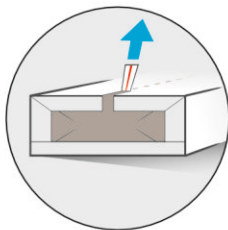
Standard paper bag



Optional:
Sewn paper bags
for autoclavable diets



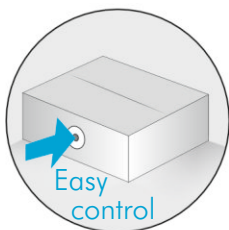
Double paper bag



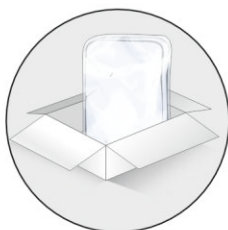
Paper bag in hermetic plastic pouch



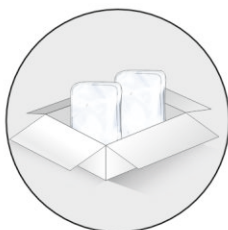
VACCUM PACKAGING FOR DIETS



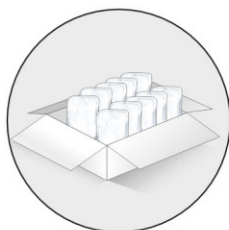
Cardboard box



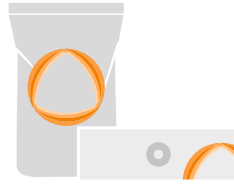
Box of 1 x 10 kg



Box of 2 x 5 kg



Box of 10 x 1 kg



Packaging

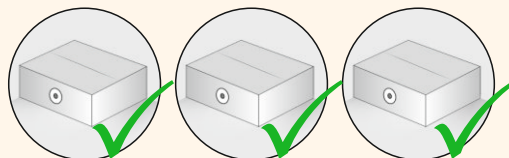
Various packaging options satisfy all needs and sanitary concerns.

A wide choice of packaging like single and double paper bag, paper bag in a plastic pouch or vacuummed-packed in box is available.

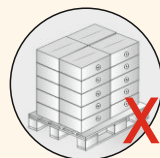
All packaging variations have an “easy open” system and are marked with the traceability and product information.

Irradiation Box by Box – for Product Safety

Typical radiation doses are 10, 25 or 40 kGy, which are guaranteed as a minimum dose in all parts of the product. Through irradiation of full pallets the deviation of the radiation level between the core of the packaging and the surface is way too high to guarantee a consistent quality of the diet. Thus all irradiated SAFE® diets are processed individually box by box to achieve a consistent radiation dose throughout the packaging.



box by box













































not full pallet wise

Premium Scientific Diets

 **Vegetal Diet**
(free from animal proteins)

 **Animal Protein Diet**



 **Autoclavable Diet**

DIET	USE	SPECIAL FEATURE	IRRADIATION DOSE (kGy)	PACKAGING
RATS, MICE, HAMSTERS (Conventional, SPF animals)				
SAFE® A03	breeding		–	10 kg paper bag
SAFE® D03	breeding	 	–	10 kg paper bag
SAFE® A30	breeding		–	10 kg paper bag
SAFE® D30	breeding	 	–	10 kg paper bag
SAFE® A03-10	breeding		>10	10 kg strippable double paper bag
SAFE® A30 SP-25	breeding		>25	10 kg paper bag in hermetic plastic pouch
SAFE® R03-10*	breeding		>10	10 kg paper bag vacuum packed in box
SAFE® R03-25*	breeding		>25	10 kg paper bag vacuum packed in box
SAFE® R30-25*	breeding		>25	10 kg paper bag vacuum packed in box
SAFE® A04	maintenance		–	10 kg paper bag
SAFE® A04C	maintenance	 certified	–	10 kg strippable double paper bag
SAFE® D04	maintenance	 	–	10 kg paper bag
SAFE® A40	maintenance		–	10 kg paper bag
SAFE® D40	maintenance	 	–	10 kg paper bag
SAFE® A04 -10	maintenance		>10	10 kg strippable double paper bag
SAFE® A04C -10	maintenance	 certified	>10	10 kg strippable double paper bag
SAFE® A40 SP-25	maintenance		>25	10 kg paper bag in hermetic plastic pouch
SAFE® R04-10	maintenance		>10	10 kg paper bag vacuum packed in box
SAFE® R04-25*	maintenance		>25	10 kg paper bag vacuum packed in box
SAFE® R40-25*	maintenance		>25	10 kg vacuum packed
SAFE® 105	universal		–	10 kg paper bag
SAFE® 150	universal	 low phytoestrogen	–	10 kg paper bag
SAFE® 150 SP-25	universal	 low phytoestrogen	>25	10 kg paper bag in hermetic plastic pouch
SAFE® D113	universal	 	–	10 kg paper bag
SAFE® D131	universal	  low phytoestrogen	–	10 kg paper bag
SAFE® 132	universal		–	10 kg paper bag
SAFE® 132 SP-25	universal		>25	10 kg paper bag in hermetic plastic pouch
SAFE® D132	universal	 	–	10 kg paper bag
SAFE® D184	universal	  low phytoestrogen	–	10 kg paper bag
SAFE® 199	universal	 high fat level	–	10 kg paper bag
SAFE® R199-25	universal	 high fat level	>25	2 x 5 kg double vacuum packed per box
SAFE® A05	long term	 low phytoestrogen	–	10 kg paper bag
SAFE® D05	long term	  low phytoestrogen	–	10 kg paper bag

RATS, MICE, HAMSTERS (Axenic Gnotoxenic animals)

SAFE® R03-40	breeding		>40	10 x 1 kg double vacuum packed per box
SAFE® R04-40	maintenance		>40	10 x 1 kg double vacuum packed per box

RATS, MICE, HAMSTERS (Transgenic animals)

SAFE® R01T-25	breeding	 increased nutritional levels	>25	10 kg paper bag vacuum packed in box
SAFE® R03T-25	breeding	 small pellet - 4.5 mm	>25	10 kg paper bag vacuum packed in box

*Available in 2 x 5 kg, lead time and prices on request.

 Download [Product Data Sheets](#)

DIET	USE	SPECIAL FEATURE	IRRADIATION DOSE (kGy)	PACKAGING
RABBITS (Conventional, SPF animals)				
SAFE® 104	maintenance	✓	–	10 kg paper bag
SAFE® 111	maintenance	✓	–	10 kg paper bag
SAFE® 112	maintenance	✓	–	10 kg paper bag
SAFE® 112-10	maintenance	✓	>10	10 kg paper bag
SAFE® 112C	maintenance	✓ certified	–	10 kg strippable double paper bag
SAFE® 110	maintenance	✓	–	10 kg paper bag
SAFE® 110-10	maintenance	✓	>10	10 kg paper bag
SAFE® 110C	maintenance	✓ certified	–	10 kg strippable double paper bag
GUINEA PIGS (Conventional, SPF animals)				
SAFE® 114	breeding	✓	–	10 kg paper bag
SAFE® 114-10	breeding	✓	>10	10 kg strippable double paper bag
SAFE® R14C-10	maintenance	✓ certified	>10	10 kg paper bag vacuum packed in box
SAFE® 106	maintenance	✓	–	10 kg paper bag
MINI PIGS (Conventional animals)				
SAFE® 127	maintenance	Ⓐ	–	10 kg paper bag
POULTRY (Conventional animals)				
SAFE® 115	starter	✓ 2 mm pellets	–	10 kg paper bag
SAFE® 115	grower	✓ 3 mm pellets	–	10 kg paper bag
SAFE® 115C	grower	✓ 3 mm pellets, certified	–	10 kg strippable double paper bag
DOGS (Conventional animals)				
SAFE® 125	maintenance	Ⓐ pellets	–	10 kg paper bag
SAFE® 125C3	maintenance	Ⓐ pellets, certified	–	10 kg strippable double paper bag
326	maintenance	Ⓐ extruded	–	15 kg paper bag
326C	maintenance	Ⓐ extruded, certified	–	15 kg paper bag
PRIMATES (Conventional animals)				
SAFE® 107		Ⓐ pellets	–	10 kg paper bag
SAFE® 107C		Ⓐ pellets, certified	–	10 kg strippable double paper bag
307		Ⓐ extruded	–	15 kg paper bag
ZEBRAFISH (Conventional animals)				
Caviar		Ⓐ several granulometries		

Gel Diets – All gel diets have a shelf life of 12 months

DIET	SPECIAL FEATURE	IRRADIATION DOSE (kGy)	PACKAGING
SAFE® gel diet transport	diet + 60 % water	>10	100 g pot (6 kg box)
SAFE® gel diet energy	high energy diet + 60 % water	>10	100 g pot (6 kg box)
SAFE® gel diet breeding	SAFE® diet + 70 % water	>10	100 g pot (6 kg box)
SAFE® gel diet water	99 % water, thermoreversible	>10	100 g pot (6 kg box)
SAFE® gel diet high fat	high fat + 56 % water	>10	100 g pot (6 kg box)
SAFE® gel diet 125C3	SAFE® diet 125C3 dog + 70 % water	>10	1 kg bucket (13 kg box)
SAFE® hydro	instant powder for DIY production	–	500 g plastic container



Gel Diets

SAFE® gel diet – Ready to Use Water Gels



SAFE® gel diet water
99 % water, thermoreversible



SAFE® gel diet breeding
SAFE® diet + 70 % water



SAFE® gel diet energy
SAFE® high energy diet
+ 60 % water



SAFE® gel diet transport
SAFE® diet + 60 % water

SAFE® hydro – Instant Fiber Compound for the Production of Water Gel



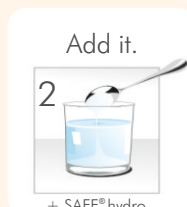
The innovative solution for a multitude of application possibilities for supplying water, food and drugs to animals. Produce your own water gel anywhere in a do-it-yourself and just-in-time fashion to suit your individual requirements!

- water gel – safe method for hydration
- moistened food – individual mix of diets and water in a gel
- application of drugs – individual dosing of drugs in gel

Three Steps to Prepare your Water Gel with SAFE® hydro



Heat it:
Boil up water and let it cool to approx. 70 - 80 °C.
Check the temperature using a thermometer.
(Important: without properly heating the mixture, a solid gel-structure will not form)



Add it:
Gradually add 1.5 % - 3.0 % (dependent on the desired gel firmness) of SAFE® hydro to the water.
Example:
For a 1.5 % suspension please use 15 g SAFE® hydro per liter of water.



Mix it:
Stir briskly in order to avoid clumping.
Fill the homogenous suspension in dedicated containers.
Cool down at room temperature.

Ready!





Premium Scientific Custom Diets



Specific Diets for all of your Research Programs

SAFE® is your competent and reliable partner for custom diets. With more than 60 years of expertise and recognized leadership, SAFE® formulates and produces special research diets for the international scientific community. Upon request, diets are formulated based on SAFE® standard diets or especially customized formulas.

- expertise and consultancy in diet design
- production on highest quality standards
- flexible and customer-oriented solutions
- short development and delivery times

Dedicated SAFE® Custom Diet Department and Production Facility

- the Custom Diet department of SAFE® has received all Food and Health accreditations.
- competent advice by the experienced SAFE® nutritionists during the whole development and production process.
- a team of specialized pharmacists, scientists and engineers supervise this division.
- best technical facilities: the production unit is equipped with scales and mixers with computer-assisted management systems.





Customized Diet Solutions

Diets based on standard diets or individual formulas offer a wide range of customized solutions to meet your specific requirements:



- controlled levels of certain elements (Potassium, Sodium, Fats, etc.)
- enriched with target nutrients (Iron, Sodium, Potassium, Cholesterol, etc.)
- purified diets: reformulation of diets on the basis of purified raw materials to obtain high-levels or reduction of elements
- enrichment of highly reduced diets by addition of targeted materials and by using different sources of nutrients
- incorporation of natural raw materials in purified diets
- dosage forms: granular, paste, liquid, gel or powdered

Certified Quality, Control and Traceability

The SAFE® Custom Diet department is certified and holds different specific authorizations:



- EN ISO 9001, EN ISO 14001, EN FSSC 22000
- certificate of approval from the veterinary services for the production of medicated diets and diets containing molecules for research
- authorized for the use of non-viable genetically modified vegetal organisms
- certified and controlled raw materials
- full traceability: each batch is controlled and recorded on a computer data base

Customized Dosage Forms



Custom Diets – Selected Solutions of the SAFE® Portfolio

REFERENCE DIETS AND LOW FLUORESCENCE DIETS



SAFE® 210

Control diet, 10 % of the energy from fat

HIGH FAT DIETS, ENRICHED WITH SUGARS



SAFE® 260 HF

60 % of the energy from fat (butter)

HYPERCHOLESTEROLIZING DIETS



SAFE® Western 1635

0.2 % Cholesterol, 21 % Butter

DIETS HIGH IN CELLULOSE



SAFE® High fiber Rabbit

MACRONUTRIENT DIETS: PROTEINS, FATS



SAFE® MCD

0.1 % Methionine, 60 % energy from fat (NASH model)

ALTERED MINERAL OR MICRONUTRIENT DIETS



SAFE® Iron deficient

ALTERED VITAMIN DIETS



SAFE® A03

Vitamin D deficient (Osteoporosis, rickets)

DIETS INDUCING A PHENOTYPE



SAFE® A03

1 g/kg Doxycycline Hyclate

DIETS WITH YOUR OWN INGREDIENTS



SAFE® Diet

Compound: oil, plant extracts

Product Dosage Form

- pastes
- pellets
- liquids and gels
- powdered form

Packaging

- buckets (0.5, 1, 2 liters), pots (100 g), bags (5, 10 kg)
- suited to the health status of your animal facility

Deliveries

- minimum order 10 kg per diet
- average lead time 15 working days
- additional 5 working days for irradiated batches
- for any non-standard presentation, lead time on request

Optional Services

- supply of ingredients or raw materials (for ingredients supplied by the client, a safety data sheet is required)
- complete analytical control of non-standard diet (antibiotic test included)

IRRADIATION (recommended)

- possible irradiation dose: 10, 25 or 40 kGy
- homogeneous irradiation technique: bag by bag
- irradiated products are vacuum-sealed

DIET	SPECIAL FEATURE
REFERENCE DIETS AND LOW FLUORESCENCE DIETS	
U8978A01R 00054	AIN76A
U8978A01R 00240	AIN93G
U8978A01R 00055	AIN93M
U8959A01R 00001	210 control
U8978A01R 00177	AIN93G AMF Butter

HIGH FAT DIETS, ENRICHED WITH SUGARS	
U8957A01R 00001	230HF (M) 60 % energy from fat (lard)
U8956A01R 00001	231HF (M) 70 % energy from fat (lard)
U8955A01R 00002	235HF 45 % energy from fat (lard)
U8954A01R 00001	236HF (M) 72 % energy from fat (lard & Maize Oil)
U8954A01R 00027	HFHS 30 % Saindoux 37 % sucrose (M)
U8960A01R 00005	Hyperglucidic 30 % sucrose
U8954A01R 00204	251HF 45 % energy from fat (lard)
U8954A01R 00205	292HF 60 % energy from fat (lard)
U8955A01R 00019	246HF 45 % energy from fat (butter)
U8978A01R 00019	260HF 60 % energy from fat (butter)

HYPERCHOLESTEROLIZING DIETS	
E8480A01R 00062	110 Rabbit +0.3 % Cholesterol
E8220A01R 00151	A04 +16 % Cocoa Butter +1.25 % Cholesterol
U8958A01R 00035	Western 1635 0.2 % Cholesterol 21 % dairy butter
U8958A01R 00052	Western 1635 0.15 % Cholesterol 20 % dairy butter
U8958A01R 00136	Western 1635 control without Cholesterol
R8620A01R 00003	Pig Western 1 % Cholesterol (M)
R8620A01R 00011	Pig Western 4 % salt 4 % Cholesterol 0.5 % cholic acid (M)

MACRONUTRIENT DIETS: PROTEINS, FATS	
U8959A01R 00184	AIN93 55 % Protein
U8959A01R 00194	AIN93 30 % Protein
U8959A01R 00156	AIN93 5 % Protein
R8220A01R 00264	A04 Low Protein 10 %
U8958A01R 00174	MCD SAFE Sucrose (Methionine & Choline Deficient)
U8958A01R 00224	Tryptophane Deficient Sucrose

DIETS HIGH IN CELLULOSE	
E8200A01R 00039	A03 +20 % Cellulose
E8220A01R 00087	A04 +20 % Cellulose

ALTERED MINERAL OR MICRONUTRIENT DIETS	
R8220A01R 00367	A04 0.01 % Sodium
R8224A01R 00066	A04 +1.2 % Phosphorus +1.04 % Calcium
R8220A01R 00147	A04 +0.75 % Adenine +1.1 % Calcium +0.9 % Phosphorus
U8958A01R 00176	Iron deficient
U8978A01R 00092	Phosphorus deficient 0.1 %
E8200A01R 00082	A03 +8 % Salt +0.76 % Potassium Chloride
U8959A01R 00088	Low Selenium & Vit. E (Cardiovascular disorders, inflammatory, ...)
R8958A01R 00185	Iodine deficient

ALTERED VITAMIN DIETS	
R8200A01R 00094	A03 Vitamin D deficient (Osteoporosis, Rickets)
R8220A01R 00231	A04 Vitamin K deficient (Osteoporosis, Leukemia, ...)
U8958A01R 00157	210 Vitamin A deficient (Xerophthalmia)
U8958A01R 00194	Low folic acid (Gastrectomy, Celiac Disease, ...)

DIET	SPECIAL FEATURE
DIETS INDUCING A PHENOTYPE	
E8200A01R 00092	A03 0.2 g/kg Doxycycline Hyclate
E8200A01R 00115	A03 0.625 g/kg Doxycycline Hyclate
E8200A01R 00001	A03 1 g/kg Doxycycline Hyclate
U8978A01R 00058	AIN93G 0.2 g/kg Doxycycline Hyclate
U8978A01R 00059	AIN93G 0.625 g/kg Doxycycline Hyclate
U8978A01R 00060	AIN93G 1 g/kg Doxycycline Hyclate
E8200A01R 00016	A03 +2 g/kg Fenofibrate
E8220A01R 00352	A04 0.25 g/kg Tamoxifene +5 % Sucrose
E8220A01R 00366	A04 0.5 g/kg Tamoxifene +5 % Sucrose
E8404A01R 00008	150 +0.25 g/kg Tamoxifene +5 % Sucrose
E8220A01R 00119	A04 +2 g/kg Cuprizone

DIETS WITH YOUR OWN INGREDIENTS	
SAFE® Standard Diet	+ Quercetin, PLX3397, PLX5622, BAPN, DDC, Adenine,...
SAFE® Standard Diet	+ Inulin, Clay, Maltodextrin, Prebiotics, Omega 3-6-9, Fatty Acids, Silica, Lieber-DeCarli...

MEDICATED DIETS, ADDITIVES, ACTIVE INGREDIENT	
Wide-spectrum antiparasitic drug*	

NON STANDARD PRESENTATIONS	
For any non-standard presentation, consider a four weeks lead time, prices on request.	
For a diet containing molecule, it is mandatory to provide the facility registration and the licence of the experimenting on animals.	
For ingredients supplied by the client, a safety data sheet is required.	

OPTIONAL SERVICES	
Providing of ingredients or raw materials	
Irradiation fee, for every 200 kg (lead time 1 week)	
Supplement for 2 kg packaging	
Supplement for 1 kg packaging	

POWDERED DIETS	
During the powdering process, loss of weight occurs due to the manufacturing process after grinding pellets (less moisture).	
POWDER for pelleting P 3.5	
POWDER 95 % < 1 mm P 2.5	
POWDER 95 % < 0.5 mm P 1	
Complete analytical control of Non Standard Diet: antibiotic test included	

GEL DIETS		
Gel Diets are ready and easy to use, irradiated at >25 kGy shelf life 12 months - 6 kg/box		
G8975P01R	SAFE® gel diet transport** Diet +60 % water	Pot of 100 g
G8973P01R	SAFE® gel diet energy** High energy +60 % water	Pot of 100 g
G8991P01R	SAFE® gel diet breeding SAFE® diet +70 % water	Pot of 100 g
G8971P01R	SAFE® gel diet water** 99 % water, thermoreversible	Pot of 100 g
G8976P01R	SAFE® gel diet high fat** 9 % energy from fat	Pot of 100 g

We are able to produce any custom variation alongside the listed diets.

* In order to comply with European Community regulation a veterinary prescription is compulsory before any production starts.

** Available for dogs and primates



Premium Scientific Bedding



Clean & Natural

Modern animal care offers the animal a safe, comfortable and natural environment.

For the security and reproducibility of your research, the SAFE® premium scientific bedding portfolio offers certified products, perfectly tailored to meet the requirements of research:

- standardized products of highest quality
- consistent physical and chemical properties
- excellent absorption, outstanding ammonia binding
- virtually dust free
- selected premium raw material
- production according to HACCP and DIN EN ISO 9001

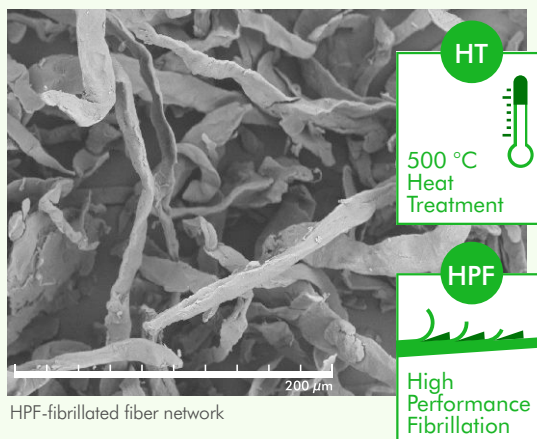
Excellent Absorption and Ammonia Binding

SAFE® Unique Fiber Technology

The innovative and further optimized production step of High Performance Fibrillation (HPF) opens the fiber capillaries and provides excellent absorption and ammonia binding. A special heat treatment (HT) at 500 °C reduces germs and bacteria.

How does High Performance Fibrillation work?

HPF is a purely mechanical production step. SAFE® owns unique technologies to process plant fibers specifically for the production of animal care products: In a multi-stage process step, the fiber structure is broken down into its finest fibrous structure.



HPF-fibrillated fiber network

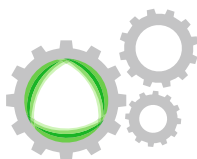




Natural Bedding Solutions

SAFE® offers the complete range of proven bedding materials from own production. All products are made of natural raw materials.

- selected natural raw material: spruce, poplar, aspen, corn cob, cellulose
- 100 % sustainable solutions: fully biodegradable
- customer-oriented consulting, based on long-term experience



Advanced Processing Technology

The special advanced plant fiber processing technology and the dedicated mechanical engineering systems of SAFE® guarantee excellent bedding properties and a unique premium quality.

- high performance fibrillation (HPF-Technology) for excellent absorption and ammonia binding
- special heat treatment (HT) at 500 °C for reduction of germs and bacteria
- dust reduction technology minimizes dust levels significantly



Certified Quality

High quality bedding and enrichment provide a constant, safe environment and support the well-being of the animal. SAFE® actively controls all possible hazard points from selection of raw material, during the production process to the final quality control.

- consistent high industrial quality
- traceable raw material sources: PEFC-certified
- certified production and quality management: HACCP and DIN EN ISO
- sustainable production processes: ISO-certified energy management



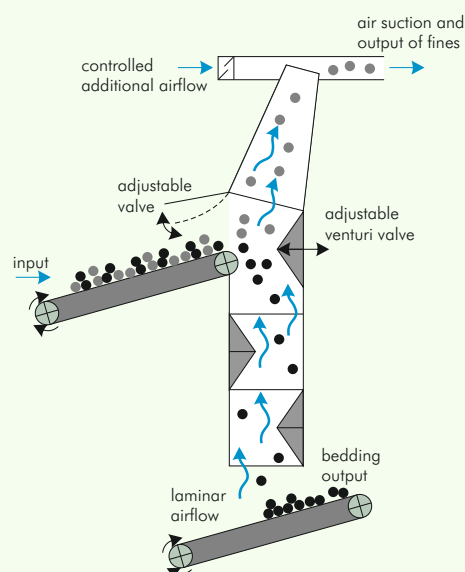
Lowest Dust Levels - for a Healthy Environment

SAFE® Dust Reduction Technology

The innovative and further optimized production step of dedusting, reduces dust levels significantly. Thus SAFE® Premium Scientific Bedding is virtually dust free – for the well-being of animals and employees.

How does Dust Reduction work?

A technical process, the so-called counter flow air-classification (see chart), removes dust and finest particles of the bedding. This step is repeated several times during the production process and guarantees lowest possible dust levels.



Premium Scientific Bedding

SPRUCE



SAFE® flake
Shavings



SAFE® 3-4 S
Fibrillated fibers



SAFE® FS 14
Cubic granulates



SAFE® BK 8-15
Cubic granulates



SAFE® prime S
Cubic granulates

POPLAR



SAFE® select
Cubic granulates



SAFE® select fine
Cubic granulates



SAFE® select XS
Cubic granulates

ASPEN



SAFE® aspen
Cubic granulates



SAFE® aspen fine
Cubic granulates



SAFE® aspen XS
Cubic granulates

CORN COB



SAFE® MK 3500
Round particles



SAFE® MK 2000
Round particles

CELLULOSE



SAFE® comfort white
Flakes



SAFE® comfort soft
Shavings



SAFE® comfort natural
Flakes



SAFE® pure
Flakes



SAFE® performance
Pellets



SAFE® performance plus
Pellets / Flakes

SAFE® performance – The Latest Generation of Bedding

- extra soft and virtually dust-free
- made from virgin paper pulp, no ink, no fillers
- excellent odor control and liquid absorption
- easy-flowable in automatic dispensing systems
- reduced product consumption as 30 % lower in density than wood and 60 % lower than corncob

The extraordinary liquid and ammonia binding keeps surfaces of the bedding layer dry and clean.

The uniformity of the pellets and the difference in specific weight and size of pellets and feces lead to the unique effect: feces are being moved towards the floor of the cages.

The results are **extended bedding change intervals, longer filter lifetime and massive cost savings.**

Clean Surface Effect



The 2in1 Activity Bedding

SAFE® performance ^{plus} is the unique combination of bedding and enrichment material – cellulose pellets paired with cellulose flakes.

Long Term Enrichment



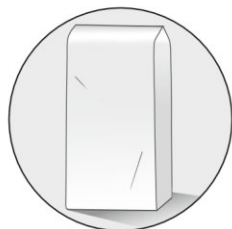
There is no need for additional enrichment material. SAFE® performance ^{plus} promotes long-term activity and excellent hygienic properties in one product. Moreover the multifunctional bedding stays easy-flowable in automatic dispensing systems.

The 2in1 product offers massive cost saving potential in handling, labor, consumption and disposal.

INNOVATION

POLYPROPYLENE BAG

tearproof and autoclavable
optional: irradiated



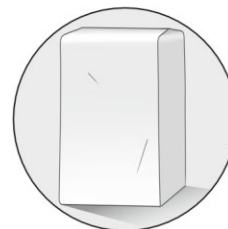
standard



small packages
vacuumed

POLYPROPYLENE BALE

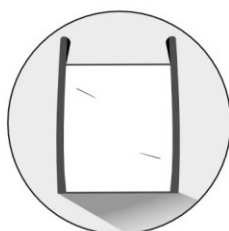
tearproof and autoclavable
optional: irradiated



BIG BAG

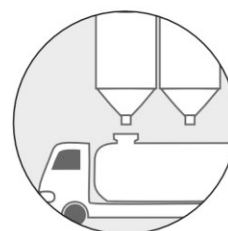


standard



dimensionally stable

BULK



silo truck

PRODUCT	BAGS (Pallet 120x80 cm)			BIG BAG standard (Pallet 120x115 cm)			BIG BAG dimensionally stable (Pallet 120x90 cm)			BULK
	Individual net weight	Pallet net weight	Pallet height	Individual net weight	Pallet net weight	Pallet height	Individual net weight	Pallet net weight	Pallet height	
SAFE® flake	18.0	324.0	200	-	-	-	-	-	-	no
SAFE® 3-4 S	12.5	337.5	210	-	-	-	-	-	-	no
SAFE® FS 14	10.0	360.0	170	-	-	-	-	-	-	yes
SAFE® BK 8-15	10.0	360.0	175	275	550	230	200	400	220	yes
SAFE® prime S	10.0	360.0	170	180	360	170	-	-	-	no
SAFE® select	10.0	360.0	170	275	550	230	200	400	220	yes
SAFE® select fine	10.0	360.0	170	-	-	-	200	400	220	no
SAFE® select XS	10.0	360.0	170	-	-	-	-	-	-	no
SAFE® aspen	10.0	360.0	170	-	-	-	200	400	220	no
SAFE® aspen fine	10.0	360.0	170	-	-	-	-	-	-	no
SAFE® aspen XS	10.0	360.0	100	-	-	-	-	-	-	no
SAFE® MK 3500	10.0	280.0	100	-	-	-	400	800	210	no
SAFE® MK 2000	12.5	350.0	100	-	-	-	400	800	210	no
SAFE® performance	5.7	182.4	140	-	-	-	-	-	-	no
SAFE® performance plus	5.4	172.4	140	-	-	-	-	-	-	no
SAFE® comfort white*	4.0	144.0	145	-	-	-	-	-	-	no
SAFE® comfort soft	4.0	144.0	145	-	-	-	-	-	-	no
SAFE® comfort natural*	4.0	144.0	145	-	-	-	-	-	-	no
SAFE® pure	7.0	336.0	185	-	-	-	-	-	-	no

Weight in kilogram (kg), dimension in centimeter (cm)

Pallet height including pallet. Pallet height may vary due to the natural variations in raw materials and effects of processing.

* Only available in non-autoclavable film

Premium Scientific Bedding

Chemical and Physical Characteristics

PRODUCT	RAW MATERIAL	APPEARANCE	PARTICLE SIZE MAIN SHARE [mm]	WATER ABSORBENCY [%]	ABSORPTION SPEED [s]
SAFE® flake	Spruce	Shavings	5.0 - 20.0	368	6
SAFE® 3-4 S	Spruce	Fibrillated fibers	2.0 - 4.0	370	5
SAFE® FS 14	Spruce	Cubic granulates	3.5 - 4.5	253	49
SAFE® BK 8-15	Spruce	Cubic granulates	2.5 - 3.5	304	34
SAFE® prime S	Spruce	Cubic granulates	1.6 - 2.5	345	31
SAFE® select	Poplar	Cubic granulates	3.5 - 4.5	251	42
SAFE® select fine	Poplar	Cubic granulates	2.5 - 3.5	300	30
SAFE® select XS	Poplar	Cubic granulates	1.0 - 1.5	338	26
SAFE® aspen	Aspen	Cubic granulates	3.5 - 4.5	249	44
SAFE® aspen fine	Aspen	Cubic granulates	2.5 - 3.5	301	32
SAFE® aspen XS	Aspen	Cubic granulates	1.0 - 1.5	342	29
SAFE® MK 3500	Corn Cob	Round particles	2.3 - 3.5	252	2
SAFE® MK 2000	Corn Cob	Round particles	1.7 - 2.2	311	1
SAFE® performance	Cellulose	Pellets	6.0 - 15.0	425	28
SAFE® performance ^{plus}	Cellulose	Pellets / Flakes	6.0 - 20.0	441	24
SAFE® comfort white	Cellulose	Flakes	10.0 - 25.0	499	2
SAFE® comfort soft	Cellulose	Shavings	10.0 - 25.0	499	2
SAFE® comfort natural	Cellulose	Flakes	10.0 - 25.0	479	3
SAFE® pure	Cellulose	Flakes	10.0 - 20.0	481	3

 Download [Product Data Sheets](#)

Profit from Highest Standards in Packaging and Logistics

- tearproof, autoclavable polypropylene bags
- new, heat-treated hygienic Euro pallets made from spruce with antibacterial properties
- maximum utilization of the storage space
- quick, cost-effective handling and transport
- optimal pallet stability
- stretch film protected pallets – bags remain clean during transport and storage
- high rack warehouse with pest control



Clean and dry loading area





Premium Scientific Enrichment



Natural & Safe

Environmental enrichment stimulates the animal's interaction with its environment for a better welfare and an optimized behavior. Besides natural and clean bedding, the wide range of natural enrichment material is the perfect supplement. SAFE® Enrichment guarantees highest quality and product safety.

- enrichment products made of 100 % natural raw material
- promotes activity and natural exercise
- stimulates the natural instincts of nesting, gnawing, chewing, exploring and playing
- reduces abnormal, aggressive or apathetic behavior
- supports thermoregulation and keeps warm

The Ideal Enrichment Combination

RECOMMENDATION

For better stimulation, SAFE® recommends a combination and continuous variation of different enrichment materials. Several well-proven combinations can be used. The SAFE® customer service would be pleased to advice you.

Example of recommended combination:

NESTING



PLAYING & GNAWING



SAFE® compact nesting small



SAFE® block





Natural & Safe

The European regulations for animal welfare in research (European Directive 2010/63) asks for active promotion of natural activity of animals in the research environment. The wide range of SAFE® premium scientific enrichment provides a variety of solely natural and safe solutions.

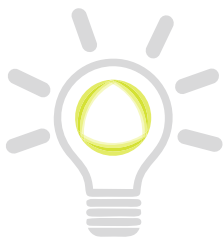
- from selected natural raw materials: wood, cellulose, paper
- highest safety level for the animal
- biodegradable



Highest Quality Products

For the security of research and the well-being of the animals all SAFE® enrichment materials are from highest, controlled quality.

- consistent high quality
- traceable source of raw material: PEFC certified
- certified production and quality management: HACCP and DIN EN ISO
- sustainable production processes: ISO-certified energy management

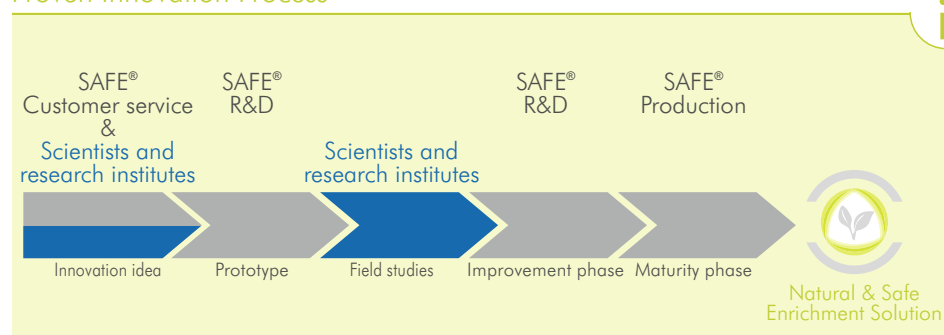


Innovation Force

R&D and customer service at SAFE® are continually working on improvements and innovations of natural enrichment products for best functionalities and hygienic properties.

- SAFE® has comprehensive knowledge in processing and use of all kind of natural raw materials
- SAFE® R&D centers and on-site production for realization of innovations
- long-term customer relationship with open exchange of needs and ideas
- close and confidential cooperation with scientists and research institutes for application studies in real research environment

Proven Innovation Process



Premium Scientific Enrichment

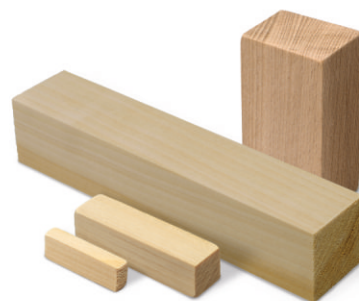
WOOD



SAFE® nesting small



SAFE® compact nesting small



SAFE® block small, large, XL, XXL



SAFE® nesting large



SAFE® compact nesting large



SAFE® block gnawing

CELLULOSE



SAFE® stick



SAFE® comfort white



SAFE® comfort soft



SAFE® comfort natural



SAFE® play

PAPER



SAFE® crinklets
natural



SAFE® compact
crinklets natural



SAFE® tube
large, small

COTTON



SAFE® hut



SAFE® roll

HAY



SAFE® compact
hay

MINI BAG



SAFE® smart

Premium Scientific Enrichment

Chemical and Physical Characteristics

PRODUCT	RAW MATERIAL	PRODUCT DIMENSIONS LENGTH (L) / WIDTH (W) / HEIGHT (H)	USE		
			NESTING	GNAWING	ACTIVITY
SAFE® nesting small	wood	– / 2 / 0.1 mm	x		
SAFE® compact nesting small	wood	Ø ca. 50 mm; ca. 10 mm (H)	x		x
SAFE® nesting large	wood	– / 15 / 0.1 mm	x		
SAFE® compact nesting large	wood	Ø ca. 50 mm; ca. 10 mm (H)	x		x
SAFE® block small	wood	50 / 16 / 10 mm		x	x
SAFE® block large	wood	70 / 20 / 20 mm		x	x
SAFE® block XL	wood	90 / 40 / 50 mm		x	x
SAFE® block beech XL	wood	96 / 40 / 40 mm		x	x
SAFE® block XXL	wood	195 / 40 / 40 mm		x	x
SAFE® block gnawing	wood	100 / 70 / 20 mm		x	x
SAFE® stick	wood	114 / 10 / 2 mm		x	x
SAFE® comfort natural	cellulose	Ø 10 - 25 mm	x		
SAFE® comfort soft	cellulose	Ø 10 - 25 mm	x		
SAFE® comfort white	cellulose	Ø 10 - 25 mm	x		
SAFE® play	cellulose	Ø ca. 50 mm; ca 30 mm (H)			x
SAFE® crinklets natural	paper	– / 3 / – mm	x		
SAFE® compact crinklets natural	paper	Ø ca. 50 mm; ca. 10 mm (H)	x		x
SAFE® tube small	paper	Ø 44 mm; 75 mm (H)			x
SAFE® tube large	paper	Ø 86 mm; 150 mm (H)			x
SAFE® hut	paper	140 / 90 / 60 mm	x		x
SAFE® compact hay	hay	Ø 100 mm; 40 mm (H)		x	
SAFE® roll	cotton	Ø 12 mm; 38 mm (H)	x		x
SAFE® smart	wood / cellulose		x		x

Packaging

PRODUCT	INDIVIDUAL PACKAGING			PALLET		
	PACKAGE TYPE	QUANTITY PER PACKAGE	PACKAGE WEIGHT	PACKAGES PER PALLET	PALLET NET WEIGHT	PALLET HEIGHT
SAFE® nesting small	carton	3 kg	3	20	60	220
SAFE® compact nesting small	carton	500	4	64	256	190
SAFE® nesting large	carton	3 kg	3	20	60	220
SAFE® compact nesting large	carton	500	4	64	256	190
SAFE® block small	carton	ca. 1280	5	81	405	190
SAFE® block large	carton	ca. 400	6	81	486	190
SAFE® block XL	carton	57	7	90	630	190
SAFE® block beech	carton	96	7	90	630	190
SAFE® block XXL	carton	48	8	81	648	190
SAFE® block gnawing	carton	111	8	81	648	190
SAFE® stick	carton	1000	13			
SAFE® comfort natural*	bag	4 kg	4	36	144	145
SAFE® comfort soft	bag	4 kg	4	36	144	145
SAFE® comfort white*	bag	4 kg	4	36	144	145
SAFE® play	carton	120	10	72	720	180
SAFE® hut	carton	480	5	20	120	100
SAFE® crinklets natural	carton	10 kg	10	16	120	175
SAFE® compact crinklets natural	carton	700	5.6	64	358.4	190
SAFE® tube small	carton	300	8.7	16	139.2	100
SAFE® tube large	carton	66	7.2	16	115.2	100
SAFE® compact hay	carton	40	10	60	600	180
SAFE® roll	carton	6000	4	48	192	190
SAFE® smart	carton	10/20/40	4	60	240	200

Weight in kilogram (kg), dimension in centimeter (cm) * Only available in non-autoclavable film

Pallet height including pallet. Pallet height may vary due to the natural variations in raw materials and effects of processing.

All pallets are standard new heat-treated hygienic Euro pallets (120 x 80 cm)

Enrichment Specialties

SAFE® compact – Portion Controlled Enrichment

Easier handling!

The innovative solution for an easy dispensing of enrichment materials for small and large rodents.

The next generation of enrichment: No more scattering bulk materials. All proven enrichment materials now available standardized and portion controlled.



Autoclaving Process

- ideal quantity for optimal nest-building
- easy to handle and time saving
- nest-building and activity promotion
- manufactured from proven enrichment materials
- autoclavable and automatically dosable

SAFE® compact Product Range

All proven enrichment materials available:

SAFE® compact



nesting
small



nesting
large



crinklets
natural



Services



Service Partner

As system partner for laboratory animal science, SAFE® supports innovation projects in all applications of diets, custom diets, bedding and enrichment. Through long-standing and close cooperation with established research institutes and universities, the innovation transfer to the research is guaranteed.

Moreover, SAFE® Class offers a special service and is the competent partner for professional training in latest topics of the animal research community.

Research & Development and Application Technology Centers

SAFE® owns seven R&D and application technology centers worldwide. A team with all-encompassing knowhow in laboratory animal science is at your disposal:

- continuously focusing on innovating and developing solutions
- enhancing reliability, quality and safety of the existing processes and products







R&D Service

SAFE® has well equipped research and development laboratories and a team of specialists in laboratory animal science, continually realizing new applications and product improvements alongside the regular inspections and tests. This guarantees decisive innovative and technical advantages.

By constant optimization and development of the plants and processing methods, SAFE® offers an optimal long-term cost/performance ratio.



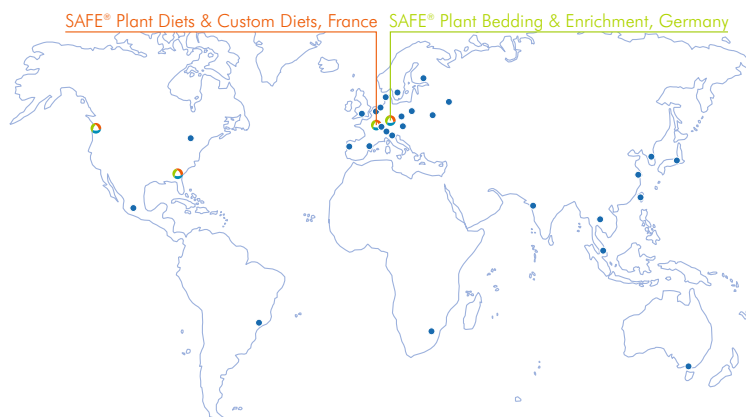
Application Service

SAFE® actively networks with animal care takers, researchers and veterinarians from universities, national health institutes and pharmaceutical companies. As a result of long-standing contacts and serious efforts in the research and development SAFE® is proud to offer top level services.

The wide range of SAFE® scientific and custom diets, natural bedding and enrichment products represents the variety of customized solutions for the diversified requirements of modern laboratory animal science in past and future.



Worldwide



PRODUCTION SITE DIETS

SAFE® COMPLETE CARE COMPETENCE
Route de Saint Bris, 89290 AUGY (France)
Phone +33 (0)3 86 53 76 90
info@safe-lab.com



WORLDWIDE HEADQUARTERS

J. RETTENMAIER & SÖHNE GMBH + CO KG
73494 Rosenberg (Germany)
Phone +49 7967 152-440
sales@safe-lab.com



Diets
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Bedding
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