

CUSTOMIZED
SOLUTIONS

Schill+Seilacher
struktol®



FIBRE

SPIN FINISHES AND FOOD CONTACT

INTRODUCTION - LEGAL BASIS

Substances, which get in contact with foodstuffs, must fulfill certain legal requirements as defined by consumer protection. Here, both international and national jurisprudence come into play.

THE MOST COMMON REGULATIONS ARE:

- **CODE OF FEDERAL REGULATION (CFR), TITLE 21 OF THE U.S. FOOD AND DRUG ADMINISTRATION (FDA)**
- **COMMISSION REGULATION (EU) NO. 10/2011 BY THE EUROPEAN COMMISSION DATED JANUARY, 2011 ON PLASTIC MATERIALS AND ARTICLES INTENDED TO COME INTO CONTACT WITH FOOD**

Both regulations list the chemical substances that are allowed under certain conditions for contact with food.

FDA

Especially in the classification according to FDA, it must be distinguished whether it is a food additive or a substance for application with indirect food contact. Food additives are components of food. Substances for use with indirect food contact can become a food additive by migration or change the organoleptic properties of the food.

- **FOR DIRECT FOOD CONTACT, PARTS 170-173 AND 180, 181, 182, 184**
- **FOR INDIRECT FOOD CONTACT, PARTS 174-178 AND 186**

SAFETY TESTING RECOMMENDATIONS FOR FOOD CONTACT SUBSTANCES (FCSs) AND THEIR CONSTITUENTS

CEDI (CUMULATIVE ESTIMATED DAILY INTAKE)

≤ 0.5 ppb

0.5 – 50 ppb

50 ppb – 1 ppm

> 1 ppm

MINIMUM TESTING RECOMMENDATIONS

No safety studies

In vitro genotoxicity tests (in bacteria and mammalian cells)

In vitro genotoxicity tests (in bacteria and mammalian cells)

In vitro test for chromosomal damage (rodent hematopoietic cells)

Sub-chronic oral toxicity tests (rodent and non-rodent species)

Submission of a food additive petition

EDIBLE DAILY INTAKE

When a substance is not specifically listed in CFR 21 for food contact, authorization must be sought in pendency of the dietary concentrations (see table above). If concentrations are below the limit of 0.5 ppb, part 170.39 (Threshold of regulation for substances in food contact articles) an admittance can be achieved by inquiring the FDA.



The Food and Drug Administration (FDA or USFDA) is an agency of the United States Department of Health and Human Services, one of the United States federal executive departments. The FDA is responsible for protecting and promoting public health through the regulation and supervision of food safety, tobacco products, dietary supplements, prescription and over-the-counter pharmaceutical drugs (medications), vaccines, biopharmaceuticals, blood transfusions, medical devices, electromagnetic radiation emitting devices (ERED), veterinary products and cosmetics.



EU REGULATION NO. 10/2011

The EU Regulation (10/2011) is based on considerations in which migration limits are allowed for a substance. It applies to both, a limit on overall migration as well as a specific migration limit.

Even substances that are not authorized in the Union list (Annex I) may be used, – as long as a barrier layer (interlayer) is part of the multiple layermaterial.

However, a maximum level of 0.01 mg/kg migration in foods should not be exceeded. In this case usually migration tests at suitable authorized institutions are obligate.

When a product comes into contact with food, it is ideally clarified beforehand whether all of its components are within the statutory requirements, and all substances (e.g. the components of the Spin Finish) are listed in Annex I (auxiliaries) of the European Regulation (EU) No. 10/2011.

Otherwise, costly and time-consuming investigations can become necessary.

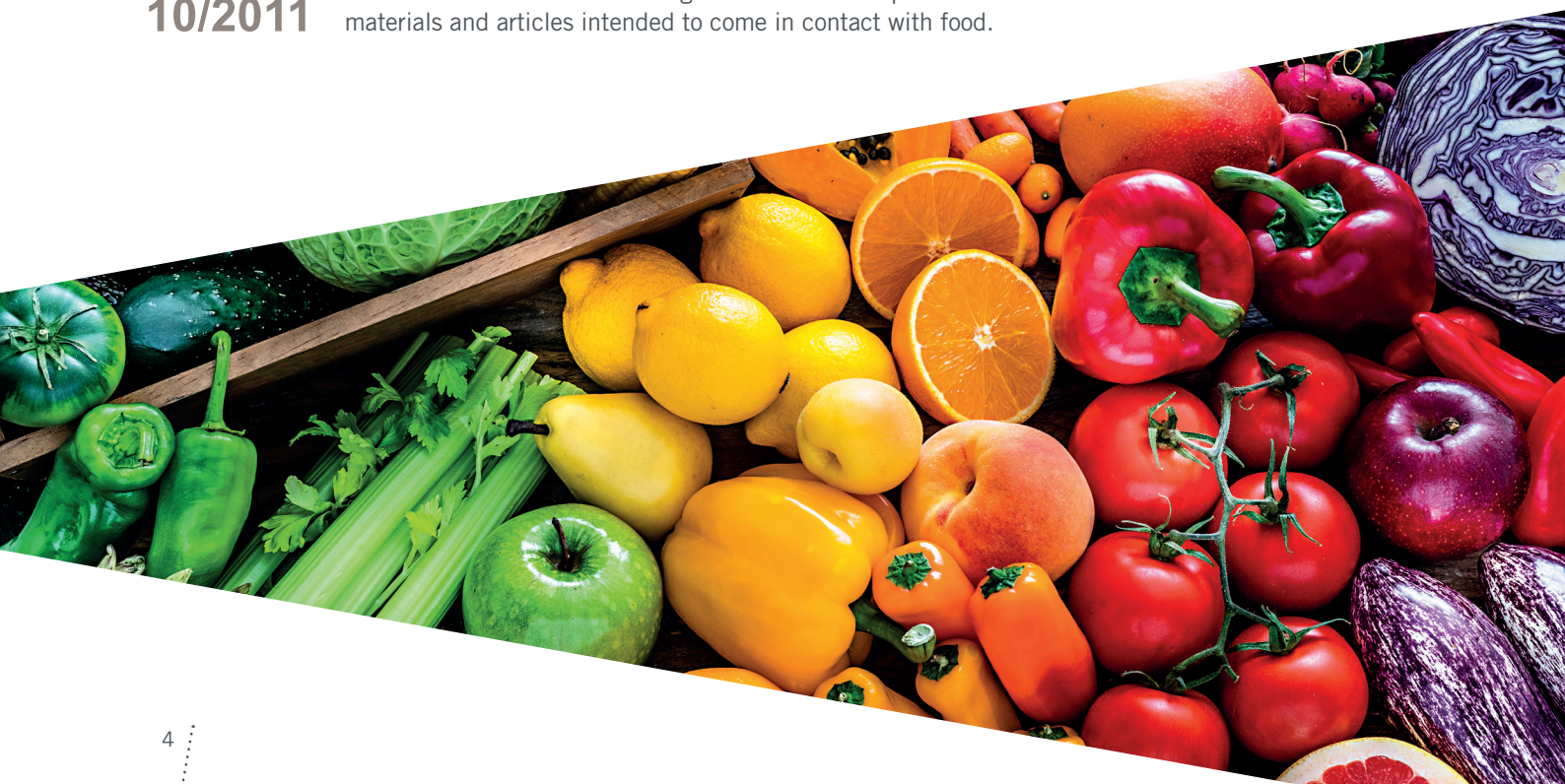
APPLICATION EXAMPLES

In most cases direct food contact is considered. Within that the Nonwovens meet various tasks. On the one hand, the food is protected from contamination or mechanical abrasion. On the other hand, a hydrophilic Spin Finish can control the fluid management of such an article.

- **FOOD PACKAGING**
- **TEABAGS, COFFEE PADS**
- **ABSORBENT MATERIALS (E.G. FOR FRUIT OR MEAT)**
- **FILTRATION**

**EU
10/2011**

The directive (EU) No. 10/2011 is a regulation on plastic materials and articles intended to come into contact with food. It is a regulation of the European Parliament and of the Council on materials and articles intended to come in contact with food.



PRODUCT RECOMMENDATIONS COMPLYING ONLY WITH FDA AND (EU) NO. 10/2011*

| FDA AND (EU) NO. 10/2011* | POLYMER | APPLICATION | FUNCTION |
|---------------------------|-------------------|------------------------|-----------------------|
| DESPUMOL EC | All | All | Defoamer |
| LIMANOL BF 29 EU | PP, PBT, PET, PLA | Filament, Flat+BCF | Spin Finish |
| SILASTOL 163 | PP, Bico | Spunlaid Nonwoven | Spin Finish |
| SILASTOL 360 | PP, Bico | Staple Fibre | Hydrophilic Lubricant |
| SILASTOL CUT 60 | PP, Bico | Short Cut Fibre | Spin Finish |
| SILASTOL GF 2011 | PP, Bico | Staple Fibre | Spin Finish |
| SILASTOL PHP 32 | PP, Bico | Spunlaid Nonwoven | Spin Finish |
| SILASTOL R 641 | PP, Bico, PET | Spunlaid Nonwoven | Hydrophilic Lubricant |
| SILASTOL PHP 207 F | PP, Bico | Spunlaid Nonwoven | Spin Finish |
| SILASTOL R 522 | PET | Staple Fibre | Hydrophilic Lubricant |
| SILASTOL SL 85 | PET, PP | Staple Fibre, Spunlace | Lubricant |
| SILASTOL SL 300 | PET | Staple Fibre | Hydrophilic Lubricant |

* All components are listed in the Code of Federal Regulations, Title 21 (FDA) for indirect food contact and in Annex I (auxiliaries) European Regulation (EU) No. 10/2011. Each component may be listed in different FDA paragraphs. Depending on the application specific restrictions should be considered.

PRODUCT RECOMMENDATIONS COMPLYING ONLY WITH (EU) NO. 10/2011**

| (EU) NO. 10/2011** | POLYMER | APPLICATION | FUNCTION |
|--------------------|---------|--------------|------------------|
| SILASTOL M 12 | PP, PBT | Staple Fibre | Antistatic Agent |
| SILASTOL SL 20 | PET, PP | Staple Fibre | Antistatic Agent |

** All components are listed in Annex I (auxiliaries) European Regulation (EU) No. 10/2011. Depending on the application specific restrictions should be considered.

PRODUCT RECOMMENDATIONS COMPLYING ONLY WITH FDA*

| FDA* | POLYMER | APPLICATION | FUNCTION |
|------------------|-------------------|------------------------|-----------------------|
| AFROTIN MBT | All | All | Biocide |
| AFROTIN TBN | All | All | Biocide |
| DESPUMOL FDA | All | All | Defoamer |
| DRYFI MG 2-F | PET | Filament, Texturized | Spin Finish |
| LIMANOL BF 29 | PP, PBT, PET, PLA | Filament, Flat+BCF | Spin Finish |
| SILASTOL A-LM | PET | Staple Fibre | Hydrophilic Lubricant |
| SILASTOL 80 G 92 | PP, PET | Staple Fibre | Hydrophilic Lubricant |
| SILASTOL A 77 M | PET | Staple Fibre | Spin Finish |
| SILASTOL BIO 7 | Bico, PLA | Spunlaid Nonwoven | Spin Finish |
| SILASTOL CUT 8 | PP, PET | Short Cut Fibre | Hydrophilic Lubricant |
| SILASTOL CUT 11 | PP, PET, Bico | Short Cut Fibre | Antistatic Agent |
| SILASTOL DL 5 | PET, Bico | Staple Fibre | Spin Finish |
| SILASTOL GF 16 | PP, Bico | Spunlaid Nonwoven | Spin Finish |
| SILASTOL GF 18 | PP, Bico | Staple Fibre | Spin Finish |
| SILASTOL GF 23 T | PP, Bico | Staple Fibre | Spin Finish |
| SILASTOL GF 30 | PP, Bico | Staple Fibre | Spin Finish |
| SILASTOL K 18 | PP, Bico | Staple Fibre | Spin Finish |
| SILASTOL LMF 8 | PP, Bico, PET | Staple Fibre | Spin Finish |
| SILASTOL MAK | PP, PET | Staple Fibre | Spin Finish |
| SILASTOL PMM-2 | PA 6.12 | Filament | Spin Finish |
| SILASTOL PE | PP, Bico, PET | Staple Fibre | Antistatic Lubricant |
| SILASTOL SL 15 | PP, PET | Staple Fibre, Spunlace | Antistatic Agent |
| UKANOL AA 500 | All | All | Defoamer |

* All components are listed in the Code of Federal Regulations, Title 21 (FDA) for indirect food contact. Each component may be listed in different FDA paragraphs. Depending on the application specific restrictions should be considered.

LOCATIONS.

BÖBLINGEN

GERMANY

DIN EN ISO 9001:2015
DIN EN ISO 14001:2015
DIN EN ISO 50001:2011
RSPO Certification Mass Balance

SPIN FINISHES FOR
MAN-MADE FIBRES
CHEMICALS FOR
TECHNICAL TEXTILES
LEATHER CHEMICALS
PAPER CHEMICALS
COSMETIC, HI&I,
SPECIAL CHEMICALS

HAMBURG

GERMANY

DIN EN ISO 9001:2015
DIN EN ISO 14001:2015
DIN EN ISO 50001:2011

RUBBER ADDITIVES
ANTIFOAMS
REACTIVE POLYMERS
& FLAME RETARDANTS
LATEX ADDITIVES
SILICONES
RELEASE AGENTS

PIRNA

GERMANY

SILICONES
PU INDUSTRY
PAPER
TEXTILES
COSMETICS
FIBRES
LEATHER

STOW

USA

DIN EN ISO 9001:2008

RUBBER ADDITIVES
PLASTIC ADDITIVES
PVC ADDITIVES
ENGINEERED
THERMOPLASTIC ADDITIVES
WOOD PLASTIC
COMPOSITE ADDITIVES
LEATHER CHEMICALS

VILLA RICA

RUBBER ADDITIVES

DISCLAIMER

This publication is not a specification and does not contain any instruction manual or operating guidelines. It is provided for information purposes only and without any responsibility. Schill + Seilacher makes no representations about the accuracy, reliability or completeness of the information in this publication. We reserve the right to revise our not specified products and the information at any time without notice. The information in this publication is based on the present state of our knowledge and experience and serves the general description of our products and their possible applications. Our technical advice and recommendations, whether verbal, in writing or by way of trials, do not absolve the recipient, on account of the many outside influences which may affect the product use and application, from their own testing and trials. A legally binding assurance based on the information contained herein regarding particular properties or the suitability for definite customer applications cannot be derived from our information.

In accordance with the provisions of our General Terms and Conditions of Sale and Delivery, which can be accessed under <https://schillseilacher.de> Schill + Seilacher excludes liability for slightly negligent breaches of obligations arising from the use of the information contained in this publication, provided that they do not relate to damage from injury to life, limb or health or guarantees or claims under the Product Liability Act are affected. Furthermore, the liability for the breach of obligations, the fulfilment of which is essential for the proper execution of the contract and on the observance of which the customer may regularly rely, remains unaffected. The same applies to breaches of duty by our agents.

CONTACT US.

Schill + Seilacher GmbH
Schönaicher Strasse 205
71032 Böblingen / Germany

Phone: + 49 7031 282-0
E-Mail: ctv@schillseilacher.de

