Preamble:

This document describes the SHEQ management system which is used at SCHÜTZ and is a binding Quality Management Standard for deliveries of packaging products from SCHÜTZ to its CUSTOMERS.

The document remains valid indefinitely, unless updates or additions to the Quality Management Standard are made. In these cases, SCHÜTZ will advise CUSTOMERS of the revised and currently valid version and will provide access to this version on the SCHÜTZ website or in an E-Mail. The previous version will automatically lose its validity.
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Glossary

ADR .......... Accord européen relatif au transport international des marchandises Dangereuses par Route
BAM ............................................ Bundesanstalt für Materialforschung und -prüfung
CFR ................................................................. Code of Federal Regulations
CoC .................................................................. Certificates of Compliance/Conformity
EC ..................................................................... European Community
EN .................................................................... European Standard
EU ..................................................................... European Union
FDA ................................................................. Food and Drug Administration
FSSC .............................................................. Food Safety System Certification
GFSI .............................................................. Global Food Safety Initiative
GGR .................................................................. Gefahrgutregeln
HACCP ............................................................ Hazard Analysis Critical Control Points
HDPE .................................................................. High Density Polyethylene
IATA ............................................................... International Air Transport Association
IBC .................................................................. Intermediate Bulk Container
IEC ..................................................................... International Electrotechnical Commission
IMDG ............................................................... International Maritime Code for Dangerous Goods
ISO .................................................................. International Organization for Standardization
MSDS .............................................................. Material Safety Data Sheets
PWIS ............................................................... Paint-wetting impairment substances
RID ............................................................... International transport of dangerous goods by road or rail
SHEQ ............................................................. Safety, Health, Environment, Quality
TS ..................................................................... Technical Specification
TSE/BSE ...... Bovine Spongiforme Enzephalopathie/Transmissible Spongiforme Enzephalopathien
UN ..................................................................... United Nations
VCI ..................................................................... Verband der Chemischen Industrie
VDMA ............................................................. Verband Deutscher Maschinen- und Anlagenbau
VPA ................................................................. Verpackungsprü- und Ausführungsrichtlinien
1 - Quality Management Standard

Our CUSTOMERS’ satisfaction with our products and our service is based on the fact that our products fulfil their application purpose as intended and expected. Our products and production processes are therefore designed to ensure that once material compatibility has been assured the quality of the filling products is optimally protected during transport and storage by the packaging and that contamination risks are largely excluded. It is our goal to continuously improve our products and processes and thus to constantly increase the benefits for our CUSTOMERS.

1.1 - SHEQ Management System

All SCHÜTZ production sites are globally certified according to the ISO 9001:2015 quality management system standard, which forms the basis for our integrated SHEQ management system. A constantly rising number of sites are certified to ISO 14001, ISO 45001 and ISO 50001 standards. The basis for FOODCERT and CLEANCERT products is the certification of the locations according to FSSC 22000.

Quality relevant information, documents, data and records (e.g. operating and work instructions, test results, measurement data, production control plans, risk analyses) are managed according to the specifications of our management system and are structured uniformly at all locations.

SCHÜTZ FOODCERT products are produced in accordance with the rules of the FSSC 22000 management system standard, which is recognised by the Global Food Safety Initiative (GFSI), in conjunction with TS 22002-4 (food packaging). This means that our FOODCERT products meet the highest cleanliness and safety standards for the materials used, the end product and the entire production process. Comprehensive HACCP analyses and the resulting risk prevention measures have largely minimised the risk of contamination along the entire production process.

SCHÜTZ CLEANCERT products are based on the specifications of the FSSC 22000 and are manufactured under the preventive programs of FOODCERT products. They offer a new standard of technical cleanliness and safety for the protection of sensitive products that are not used in the food industry. Therefore, SCHÜTZ focuses on the requirements of very demanding industries such as the automotive, coatings, semiconductor and peroxide industries.
It is in SCHÜTZ's interest and responsibility that the upstream suppliers we use are adequately qualified and monitored using suitable methods (e.g. by means of certificates, audits, etc.).

Tests of the process and the finished product are carried out in accordance with legal and internal specifications. The test equipment and testing facilities we use are calibrated in accordance with nationally and internationally valid standards. The measurement results are documented and archived.

1.2 - Audits
The uniform management system in all plants ensures that the product properties are the same. This eliminates the need for the CUSTOMER to approve each individual plant as a reliable supply source.

Irrespective of this, CUSTOMERS can request an audit of each plant and to inspect relevant documents and processes on site.

1.3 - Cleanliness of the surfaces that come into contact with the filling product / cleanliness of the container exteriors
By implementing and continually improving extensive preventive programmes, SCHÜTZ strives towards minimising the potential contamination risk for filling products in line with the current state of the art technology and in accordance with recognised and applicable quality and system standards.

Our production sites offer the option of storing the finished products under roof or in a closed room. In the event of capacity bottlenecks, these storage locations are reserved for our FOODCERT and CLEANCERT products, which are stored exclusively under roof or optionally in closed rooms.

These risk minimisation programmes ensure that at the end of the production process the containers are largely free of internal and external contamination visible to the naked eye.

In industrial manufacturing, however, the presence of particles cannot be fundamentally and entirely eliminated. Specifically for plastic and steel packaging, it is impossible to avoid friction occurring during opening and closing or static charging of the packaging, all of which can create particles and/or the possibility of particles being attracted.

The use of wooden pallets may result in traces of sawdust or wood shavings on the surface of both IBCs and drums which may commonly detach during transport and collect on top of the packaging located below.
With standard products, surface contamination due to seasonal weather conditions (e.g. pollen, snow, water stains) cannot be excluded, as the containers may be stored outside. For FOODCERT and CLEANCERT products the risk of such contamination is largely minimised by the storage under roof or optionally in closed rooms.

Particles and/or particles present in the atmosphere can therefore still unintentionally penetrate inside the packaging.

In order to minimise the risk of particle formation and the particles entering the packaging, users are advised – particularly during further processing – to keep packaging closed wherever possible and to keep the number of opening and closing procedures as low as possible.

In the case of sensitive filling products or filling product applications (e.g. for food/pharmaceutical products, coatings or electro-chemicals), it is also mandatory that the filling product is filtered during discharge or prior to further processing to largely minimise the risk of potential contamination.

1.4 – Silicones / PWIS in/on the surfaces that come into contact with products
Risk management for standard products and products produced in compliance with FSSC22000 requirements differ as described in terms of the presence of silicone and paint wetting impairment substances (PWIS) and appropriate preventive measures.

1.4.1 – Silicones / PWIS in standard IBCs (standard ECOBULK / RECOBULK / RECONTAINER), standard PE drums and steel drums
Regarding silicones in standard IBCs (standard ECOBULK / RECOBULK / RECONTAINER), standard PE drums and steel drums SCHÜTZ certifies that the raw materials, materials and auxiliary substances used to manufacture our products have been certified as silicon-free by our suppliers. Silicones are neither intentionally used nor added to the product during the production of components that come into contact with the filling material. However, it cannot be excluded that silicones or specifically PWIS (paint wetting impairment substances) may be detected as trace impurities as ubiquitous traces during the manufacturing process.

Especially in the production process for RECOBULKs and RECONTAINERs, the presence of silicones and/or PWIS cannot be excluded for the following reasons:

- Used IBCs are returned to us from all branches of industry
- The collection, storage and recycling of returned IBCs takes place within the same production area
• The IBC steel grids are cleaned with washing water from a water cycle to remove coarse, visible dirt from the grids; the risk of silicone residues and residues of PWIS in this water cycle cannot be excluded at all
• The IBC inner bottles are manufactured in the same production hall, so that airborne contamination cannot be ruled out
• The risk of indirect transfer/cross-contamination into the inner bottles by silicones and PWIS on the steel grid, e.g. through contaminated gloves, is increased for reconditioned IBCs along the entire supply chain each time the filling opening of the IBC is opened

1.4.2 – Silicones / PWIS in IBCs and PE drums from the FOODCERT & CLEANCERT product lines
For IBC- and PE-drum products from the FOODCERT & CLEANCERT product lines SCHÜTZ certifies that parts that are in contact with the filling product are free of silicones and fluorinated compounds that are capable of migration, and surfactants. This applies in the same manner for liquid, pasty, and solid materials that may release silicones, fluorinated compounds, or surfactants. These include, for example, oils, fats, protective agents, lubricants, textile auxiliaries, plastics-processing auxiliaries, hairsprays, hammer-finish paint, anti-corrosive agents, sealants, permanently lubricated sintered components, each containing silicone. It is particularly important to avoid materials based on fluorinated oils, fats or waxes, and low-molecular constituents of fluorinated polymers that are capable of migration.

In order to minimize the risk of ubiquitous traces of the substances mentioned above during the production process of FOODCERT and CLEANCERT products, up to the point when the products are loaded for dispatch special SCHÜTZ preventive programmes apply to the product lines FOODCERT and CLEANCERT to avoid the active introduction of PWIS (paint wetting impairment substances) into the production sites. These include the following measures:

• Supplier guidelines including an exclusion note for silicones and PWIS in the supplied products and services
• Contractor guideline for the exclusion of silicones and PWIS when working at a SCHÜTZ site
• Supplier questionnaire for the exclusion of silicones and PWIS in supplier processes for the production of SCHÜTZ components
• If appropriate, supplier audits to verify that no silicones and PWIS are used in relevant supplier processes
• HACCP risk management programme at SCHÜTZ including silicones and PWIS
• “Personal hygiene” preventive programme
• BASF sample shake test on the majority of products and working materials (e.g. gloves) to confirm the absence of silicones
• Sample paint tests according to VDMA 24364 on critical products and working materials to confirm the absence of PWIS

Please note that as the name implies, all of the above mentioned actions are “risk minimization activities”. As such, these activities reduce the risk of silicones and PWIS contamination to a minimum, but do not guarantee a 100% exclusion. A detailed description of all additional preventive measures for our product lines FOODCERT and CLEAN CERT can be found in the respective specifications.

1.5 - Traceability system
Our containers are marked with plant, production date and/or production order number.

For products manufactured according to the rules of the food safety management system FSSC 22000 (FOODCERT + CLEAN CERT), the traceability system provides the following additional information:

• Identification of product lots
• Identification of their connection to raw material batches
• Traceability records are kept for six (6) years

1.6 - Declarations of conformity for food applications
A “Declaration of Compliance” in accordance with Regulations (EC) No. 1935/2004, (EU) No. 10/ 2011 or "Code of Federal Regulation Title 21 § 177.1520 / §177.2600 / § 178.3297 for the packaging products purchased by the CUSTOMER will be prepared by SCHÜTZ only if requested by the CUSTOMER and only for packaging from the product series FOODCERT or FDA (food commodity).

SCHÜTZ will not issue a “Declaration of Compliance” based on legal requirements for individual materials, spare parts and components, as declarations for food packaging must by law always refer to the complete packaging item.

1.7 - Labelling of food packaging materials
According to FSSC 22000, SCHÜTZ wishes to point out that the products are labelled as packaging for food contact in accordance with the internationally valid regulations of Regulations

In case local legal regulations require any additional labelling or labelling that differs, it is the responsibility of the CUSTOMER to ensure compliance.

1.8 - Declaration of compliance by mail / shipping documents
As described in Chapter 1.1, quality-relevant tests in the process and on the product are controlled in accordance with the definition in our management system and are uniformly structured at all locations. This allows us to ensure globally reproducible production processes for our products.

Thus, at the CUSTOMER’s request “Certificates of Compliance/Conformity“ (CoCs) can be issued in accordance with standard EN10204-2.1 (works certificates) - English: Declaration of Compliance (with the order) EN 10204:2004 (D), which certify that the packaging products that are supplied have been produced in compliance with the currently valid specification.

Additional test certificates according to standard EN 10204 are not applicable for our products and production processes.

1.9 - Processing complaints due to quality defects
The CUSTOMER must inspect the goods for any visible defects immediately after delivery by SCHÜTZ. The CUSTOMER is responsible for reporting any visible defect without delay to SCHÜTZ. If the CUSTOMER fails to make a complaint, the goods shall be deemed to have been accepted.

If a defect was not apparently visible, the CUSTOMER must report any other defect noticed at a later point to SCHÜTZ immediately after its discovery; failure to do this will mean that the goods will be deemed to have been accepted with regard to this defect.

In the event of a complaint, SCHÜTZ will confirm receipt of the complaint and, if possible, provide an initial assessment of the situation. SCHÜTZ will describe the inspection results in a complaint report within twenty (20) working days after receipt of all necessary information, documents and photos or, if necessary, after examining the original packaging which has been returned by the CUSTOMER.
These reports will be sent to the CUSTOMER and will contain details of the following:

- Problem description
- Analysis of the cause
- Immediate and long-term corrective action

1.10 - Recall
If SCHÜTZ is concerned about a possible serial defect in production, especially due to an on-going complaint, SCHÜTZ will discuss with the CUSTOMER to block (filled and unfilled packaging) and accept the return (unfilled new containers only) of any packaging that might be affected.

In the event of serious quality problems within the production process which are known to SCHÜTZ and which could result in a recall, SCHÜTZ will inform the CUSTOMER immediately of this circumstance, irrespective of whether a complaint has been lodged or not.
2 - Change Management

Should SCHÜTZ become aware of any possible delivery bottlenecks, loss of production and delivery capacities or any force majeure affecting the upstream suppliers that may result in a delay or delivery failure, SCHÜTZ will inform the CUSTOMER immediately.

Generally, as well as in the event of unforeseen events, SCHÜTZ reserves the right to switch between comparable materials, production and assembly processes as well as production sites with comparable quality management systems as described below in order to ensure the best possible delivery reliability for the CUSTOMER while complying with the required specifications.

2.1 - Specific materials
SCHÜTZ always strives to approve several raw material suppliers in order to react flexibly to market conditions and to be able to guarantee our CUSTOMERS a high degree of supply security for our products on a global scale.

SCHÜTZ will not advise CUSTOMERS when switching to different approved suppliers of a specific material. Depending on the country and availability, the suppliers of the materials may differ from each other.

It is SCHÜTZ’s responsibility to ensure that the materials we use are suitable for the intended use of our packaging and are therefore comparable in quality. We ensure this by only using HDPE materials which are considered to be equivalent according to BAM-GGR 003 (EN 15507). In addition, it must be ensured that materials for food applications are suitable for food contact in accordance with the applicable guidelines (CFR Title 21 § 177.1520 / §177.2600 / § 178.3297, EC 1935/2004, EU 10/2011, EC 2023/2006). In the event of a change of supplier, SCHÜTZ will check and verify compliance.

If the packaging material is also intended for medical applications, it is imperative to consult SCHÜTZ (Technical Customer Service) separately about the specific application before the first use in order to examine and coordinate the potential applications.
2.2 - Production process and assembly
As part of the continuous improvement of our processes and products, process parameters are exclusively adapted to an extent that has positive impact to ensure the consistent quality of SCHÜTZ products or further optimise it.

To ensure maximum flexibility and fast reaction times, several equivalent blow moulding machines or production lines are available. Order-related selection takes place within capacity planning. SCHÜTZ is unable to provide information about possible process changes during or in advance of delivery of the products.

2.3 - Production sites
All SCHÜTZ sites operate on the basis of the same management system (e.g. according to ISO 9001 and for the most part additionally according to FSSC 22000). This ensures that all plants operate according to the same processes. As a result, we can react quickly to changing circumstances and relocate production to another SCHÜTZ plant if necessary. This gives us a high degree of flexibility and guarantees our CUSTOMERS a high degree of supply security.

In this context, however, we regret that we cannot provide advance advice on the change of a production plant.

Occasionally, it may not be possible to produce all IBC product versions (specialties) or drums at all SCHÜTZ locations. For the packaging in question, the CUSTOMER must consult SCHÜTZ about the necessary delivery terms (e.g. safety stocks) before the first delivery if separate measures need to be taken.

2.4 - Selection and specification of the packaging:
SCHÜTZ's Technical CUSTOMER Service offers the CUSTOMER active and comprehensive technical support and advice in the selection of the best packaging and its application options. The advice is based on the knowledge and experience we have. According to transport law (ADR & IMDG Chapter 4.1.3.1), however, it does not release the CUSTOMER from the obligation that “[…] the user shall not select a packaging without checking that the substance is compatible with the packaging product selected […].” The final responsibility for the choice of the packaging being used therefore lies with the CUSTOMER.

Depending on the application, SCHÜTZ's consulting service is based on the standards and guidelines currently contained in international transport law (material compatibility lists, specifications for use, test specifications, etc.) of the United Nations Orange Book (Recommendations on the transport of dangerous goods), IMDG (International Maritime Dangerous Goods Code),
IATA (Dangerous Goods Regulations – Airfreight), ADR / RID (international transport of dangerous goods by road or rail) and CFR49 (US Hazmat Transportation Regulations).

Special local laws and regulations, especially for the use and labelling of food contact materials and articles (see 1.7), must be checked and complied with by the CUSTOMER on his own responsibility.

The following main criteria are covered by the Technical CUSTOMER Service on request:

- Checking the material safety data sheets (MSDS) to ensure the compatibility of the filling products with the packaging using the assimilation process in connection with the standard liquids contained in the UN approval for dangerous goods
- Provision of a digital copy of the packaging specification selected by the CUSTOMER and any relevant appendices
- Provision of a digital copy of the “Certificate of Approval” for the transport of hazardous goods associated with the packaging specification
- Provision of a digital “Declaration of Compliance” for any food packaging
- Provision of the SCHÜTZ Handling Guide with a wide range of product and operational information regarding the safe handling of our packaging
- Provision of digital verification for the use of specific EX-protected packaging for use in defined EX-protected zones 1 + 2 or for flammable liquids of explosion groups IIA and IIB (in line with IEC 600079-20-1) with a flash point <= 60°C
- Further certificates on the exclusion or limit values of specific ingredients in raw materials or finished products (e.g. bisphenol A, TSE/BSE, melamine etc.)

SCHÜTZ is unable to provide detailed documents, such as detailed technical drawings with dimensions or detailed expert surveys. All primarily relevant dimensions and performance specifications for handling and proof of the suitability of the packaging under transport law are provided in the specification and in the “Certificate of Approval” where applicable.

2.5 - Specification
As the manufacturer, we regard our own SCHÜTZ specifications as the main document for the general description and definition of the packaging design selected by the CUSTOMER and the associated performance required. We are happy to provide our CUSTOMERS with copies of our packaging specifications on request.
SCHÜTZ reserves the right to change the construction, technology, design and material of the product or individual components as long as no unreasonable changes for the customer are related to it. The dimensions and weights given here are approximate and can vary according to the configuration of the individual components. All intended or necessary changes to features listed in SCHÜTZ specifications that could have an effect on the specified performance, dimensions and handling of the packaging product are generally announced well in advance of any changeover.

When changes are made, a distinction is made between:
- significant
- minor

**Significant changes are alterations to:**
- Characteristics that are specified
- The HDPE materials that come into contact with the filling product if these are not already listed in our dangerous goods approvals or covered by them or considered as equivalent according to the specifications of BAM GGR003 (EN 15507)
- The inner coating specification for steel packaging
- The materials that come into contact with the filling product if, in the case of food packaging, they are no longer suitable for food contact
- The design of the product, if the defined performance of the product in the new design is demonstrably not at least equivalent to the defined performance of the original design or the handling is influenced by the design changes in an unreasonable way
- Or if a specified product is discontinued

**Minor changes are alterations to:**
- Characteristics that are not specified

**Changeover deadlines:**
CUSTOMERS will be notified of any significant changes as early as possible, but at least three (3) months in advance of the planned implementation in the form of a notification of change letter containing the following information:

- description of the change (including the effect on the SCHÜTZ product)
- reasons for the modification
- a list of the SCHÜTZ products concerned
- the date of planned conversion
- availability of samples, if required

No advance notification is required for minor changes.
Within the defined periods until the changeover, the CUSTOMER has the option of checking and approving the change using an optional sample or, if necessary, selecting an alternative product from the SCHÜTZ range. Should the CUSTOMER fail to perform the approval tests within the specified period, SCHÜTZ reserves the right to carry out the conversion regardless, if the standardised production processes would otherwise be negatively impacted.

Changes of supplier are only announced if the materials of the components that come into contact with the product differ fundamentally from the materials previously used or if the performance of the products can no longer be considered as at least being equivalent because of the change of supplier.

2.6 - CUSTOMER specification as a guiding document
If the CUSTOMER wishes to use his own specification as the guiding document, this can be accepted after consultation.

Based on the above provisions of the Quality Management Standard, SCHÜTZ will recognise the CUSTOMER’s specifications as guiding document under the following conditions:

1. The respective specification refers to the above-mentioned internationally valid regulations of the transport law for dangerous goods packaging, which regulate the conditions for the global transport of dangerous goods. SCHÜTZ does not assume any liability for compliance with local guidelines that are not binding under transport law (e.g. VPA - Packaging Testing and Execution Guidelines of the VCI), as these often refer to the CUSTOMER's product-specific applications whose details are unknown to SCHÜTZ and/or whose handling SCHÜTZ cannot influence.

2. The specification is signed by SCHÜTZ and the CUSTOMER before the first order in order to verify that both parties agree regarding the described specification. In principle, SCHÜTZ must first check any specification that goes beyond the SCHÜTZ specification to ensure that it can be implemented.

3. CUSTOMER will proactively communicate all changes to the specification to SCHÜTZ; this document will be signed by both SCHÜTZ and the CUSTOMER, and the date upon which it becomes valid will be set to before the first delivery that falls under the new specification.
4. The specification is managed separately from incoming purchase requisitions. Our staff in Order Management cannot perform a detailed check of a specification directly attached to the purchase requisition or any descriptions of the packaging product contained in the purchase requisition in text form. In principle, the last specification signed by both sides with its validity date is considered valid for the execution of the ordered packaging products.

5. Depending on the type and scope of the specification change, SCHÜTZ will again check the agreement to ensure that it remains valid.

3 – Severability Clause

Should any provision of this Quality Management Standard be or become invalid, void or unenforceable, the validity of the remaining provisions shall not be affected thereby.

The parties shall replace the invalid/void/unenforceable provision with a provision that comes as close as possible to the intended purpose of the invalid/void/unenforceable provision. This shall also apply to any unintentional gaps in the contract.
Appendix I
Confirmation of the binding Quality Management Standard

The following signatures confirm the validity of this document as a binding Quality Management Standard for deliveries of SCHÜTZ packaging to the CUSTOMER.

Selters, July 2020

i.V. Kai Reichensperger
Head of Technical Customer Service
PACKAGING SYSTEMS

i.V. Dr. Gernot Kretzschmar
Head of SHEQ Management

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