

Material Compliance Requirements

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1. Introduction

The purpose of this material compliance standard is to ensure that materials and articles are handled in accordance with materials in development, production, trade and use.

This Material Compliance Standard describes the requirements of Techem GmbH and its affiliated companies with regard to all known legally prohibited, regulated and declarable substances in their current form.

If any changes in the law are not yet reflected in this standard, this does not release the supplier from the obligation to take these changes in the law into account and to comply with the current legal requirements that apply from time to time.

The supplier is obliged to procure the current guidelines, laws and standards itself.

The material compliance requirements apply in the same way as other product requirements.

The Material Compliance Standard requires that all products and their packaging comply with the requirements of this Material Compliance Standard in order to ensure that the products are placed on the market in accordance with the rules.

Products and raw materials of unknown origin and/or composition, or raw materials for which sufficient material data are not available, may not be used.

In individual cases, Techem GmbH must be provided with the technical data sheets of all raw materials and auxiliary materials used for initial sampling upon request. Techem GmbH reserves the right to carry out tests and laboratory tests on materials in individual cases.

The supplier of Techem GmbH is obliged to provide the material information required to check compliance with the legal requirements and the present standard free of charge.

Techem GmbH makes the Material Compliance Standard available on its website.

The supplier is obliged to check at least every 6 months whether the Material Compliance Standard is available in an updated form. With the amendment of the Material Compliance Standard, it replaces the previous version and is effective immediately.

Techem GmbH's suppliers will not be notified of any changes or versioning of this standard.

This Material Compliance Standard has been prepared by tec4U - Solutions GmbH, Saar-Lor-Lux-Straße 13, 66115 Saarbrücken, Germany. The use and/or reproduction of the standard is permitted to Techem GmbH and the participants in the supply chain. For the use of the standard, in whole or in part, outside the supply chain, approval from tec4U - Solutions GmbH must be obtained.

2. Terms and Abbreviations

Sunset date:

After that date, the placing on the market and use of a substance listed in Annex XIV to Regulation (EC) No 1907/2006 shall be prohibited unless an authorization has been granted.

Intentionally added:

Commonly known as the deliberate use of a substance contained in a product to create a certain property, appearance, function, or quality.

Latest application date:

According to Regulation (EC) No. 1907/2006, an application for authorization must be submitted by this date (date is at least 18 months before the expiry date) in order for the substance to continue to be used (deadline).

Information on the application for admission and the formal procedure of an application for admission can be found at:

<https://echa.europa.eu/de/applying-for-authorisation>

Application:

Means that the limit value of the substance refers to the material or part in which the substance is contained to achieve a desired functionality.

Battery:

A device which supplies electrical energy produced by the direct conversion of chemical energy, has an internal or external memory, and consists of one or more non-rechargeable or rechargeable battery cells, modules or sets, and comprises a battery that has been prepared for reuse or conversion or repurposed or remanufactured. (cf. EU Regulation 2023/1542 Art. 3 para. 1 no. 1)

Restricted substances:

Restricted substances may not be contained above the applicable limit values as substances, mixtures and articles.

CAS Number:

The CAS Registry Number (also known as the CAS Registration Number and CAS Registry Number, CAS = Chemical Abstracts Service) is an international designation standard for chemical substances. There is a unique CAS number for each chemical substance registered in the CAS database (including biosequences, alloys, polymers).

Declarable substances:

The substances classified as subject to declaration are not desirable in some applications and must be declared above the specified limit values. The substances listed must be indicated for each article, component, material, preparation, auxiliary or operating material. Below these limits, the obligation to declare does not apply.

Endocrine disruptors:

Endocrine disruptors (ED) are chemicals or mixtures of chemicals that disrupt the natural biochemical mode of action of hormones and thus cause harmful effects (e.g. disruption of growth and development, negative influence on reproduction or increased susceptibility to specific diseases).

Product:

Object which, during manufacture, acquires a specific shape, surface or shape which, to a greater extent, determines its function than its chemical composition. (cf. Regulation (EC) No. 1907/2006 Art. 3 para. 1 no. 3).

Mixture:

Mixtures, mixtures or solutions consisting of two or more substances (cf. Regulation (EC) No. 1907/2006 Art. 3 para. 1 no. 2)

Examples of mixtures:

- Mixed: Together
- Mixture: Alloy
- Solution: Octane in gasoline

Device Battery:

A battery that is encapsulated, weighs 5 kg or less, is not specifically designed for industrial use, and is not an electric vehicle battery, LV battery, or starter battery. (cf. EU Regulation 2023/1542 Art. 3 para. 1 no. 9)

Homogeneous material:

A material with a uniform composition throughout or a material consisting of different materials that cannot be broken down or separated into individual materials by mechanical processes such as unscrewing, cutting, crushing, grinding or grinding (cf. EU Directive 2011/65/EU Art. 3 para. 1 no. 20).

Examples of homogeneous materials:

- Plastic
- Ceramics
- Glass
- Alloy
- Coating

Industrial Battery:

A battery specially designed for industrial use, intended for industrial use after preparation for reuse or preparation for reuse, or any other battery that weighs more than 5 kg and is neither an LV battery, an electric vehicle battery nor a starter battery. (cf. EU Regulation 2023/1542 Art. 3 para. 1 no. 13)

Persistence (chemistry):

In biology and environmental chemistry, persistence is the resistance of mostly organic chemical compounds to chemical-physical and biological degradation.

Fabric:

A chemical element and its compounds in natural form or obtained by a manufacturing process, including the additives necessary to maintain its stability and the impurities caused by the process used, but with the exception of solvents which can be separated from the substance without affecting its stability and without changing its composition (cf. Regulation (EC) No 1907/2006 Art. 3 para. 1 no. 1).

Examples of fabrics:

- organic: ethanol, aldehyde
- metallic: iron, copper, tin
- mineral: clay, loam

Partial declaration:

The partial declaration specifically asks about the presence of restricted chemical compounds and elements above the relevant limit value that must be declared. The partial declaration does not allow any statement to be made about the actual composition of the object.

Packaging:

Products made of any material for the reception, protection, handling, delivery and presentation of goods, which may range from raw materials to processed products, which are passed on from the manufacturer to the user or consumer. All "disposable items" used for the same purpose are also to be regarded as packaging (cf. EU Directive 94/62/EC Art. 3 para. 1 no. 1).

Packaging components:

Parts of the packaging that can be separated by hand or by simple mechanical operations. Additional elements that hang or are attached directly to a product and perform a packaging function are considered packaging, unless they are an integral part of the product.

Contamination:

The addition or presence of chemicals to or in another substance to such an extent that it becomes unfit for its intended purpose.

Full declaration:

The full declaration states that all chemical compounds and elements present above a declaration threshold must be declared. The sum of all specified compounds and elements must be 100%.

3. References/Assistance

Platform for European Regulations, Directives and Decisions, in all existing versions and official European languages – the year of publication and the publication number must be entered in the search mask.

<http://eur-lex.europa.eu/>

Support area of the European Chemicals Agency (ECHA):

<https://echa.europa.eu/support/guidance>

REACH-CLP Biocide Helpdesk – National Enquiry Point of the Federal Government:

<http://www.reach-clp-biozid-helpdesk.de/de/Startseite.html>

REACH Helpdesk – German Environment Agency:

<http://www.reach-info.de>

REACH@Baden-Württemberg

<https://www.reach.baden-wuerttemberg.de/>

Platform for German laws:

<https://www.gesetze-im-internet.de/>

4. Techem GmbH - List of Legally Restricted Substances

4.1 Substance restrictions – relevant for all products

The substance law requirements described under this point apply to all substances, mixtures and articles.

4.1.1 Regulation (EC) No 1907/2006 REACH – Annex XIV – List of substances subject to authorization

The inclusion of a substance from the list of substances of very high concern in Annex XIV of the REACH Regulation leads to an authorization requirement for this substance at the end of the procedure. After a transitional period, the substance may only be used with an authorization or its use is restricted.

The explanations of the terms application deadline and expiry date can be found under point 2 Definitions, abbreviations and sources.

You can access the current Annex XIV of the REACH Regulation under the following link:

<https://echa.europa.eu/de/authorisation-list>

4.1.2 Regulation (EC) No 1907/2006 REACH – Annex XVII – List of Restricted Substances

Annex XVII of the REACH Regulation lists substances that are restricted by the legislator in defined applications.

You can access the current Annex XVII of the REACH Regulation under the following link:

<https://echa.europa.eu/de/substances-restricted-under-reach>

4.1.3 Directive 2011/65/EU - RoHS

Directive 2011/65/EU of the European Parliament and of the Council regulates the restriction of the use of certain hazardous substances in electrical and electronic equipment. This directive has been implemented in Germany by the Electrical and Electronic Equipment Substance Ordinance (ElektroStoffV).

The substance restrictions of the ElektroStoffV refer to the maximum concentrations in the homogeneous material. If it is necessary that exemption rules from Annexes III and IV of the RoHS Directive are required to achieve conformity, Techem GmbH requires the designation and assignment of these.

Table 1: Substance restrictions of Directive 2011/65/EU

Substance groups/substances	Maximum concentration in homogeneous material
Cadmium and cadmium compounds	0,01 %
hexavalent chromium (Cr6+) and Cr6+ compounds	0,10 %
Lead and lead compounds	
Mercury and mercury compounds	
Polybrominated diphenyl ethers (PBDE)	
Polybrominated biphenyls (PBB)	
Di(2-ethylhexyl) phthalat (DEHP)	
Butylbenzyl phthalate (BBP)	
Dibutyl phthalate (DBP)	
Diisobutyl phthalate (DIBP)	

The current exceptions and their status can be found at the following link:

https://ec.europa.eu/environment/topics/waste-and-recycling/rohs-directive/implementation-rohs-directive_en

4.1.4 Chemicals Prohibition Ordinance - ChemVerbotsV

The Ordinance on Prohibitions and Restrictions on the Placing on the Market of Hazardous Substances, Mixtures and Products under the Chemicals Act is a German law that prescribes special national requirements in addition to Regulation (EC) No. 1907/2006. In addition, the national requirements for the following substances and groups of substances are defined:

Table 2: Substance restrictions according to the Chemicals Prohibition Ordinance

Substances/mixtures
Formaldehyde
Dioxin und Furane
Pentachlorophenol
Biopersistent fibers

The current requirements and the exceptions listed can be found in the text of the law.

http://www.gesetze-im-internet.de/chemverbotsv_2017/index.html

4.1.5 Regulation (EC) No. 2019/1021 on persistent org. Pollutants (POPs)

This EU regulation implements the Stockholm Convention on Persistent Organic Pollutants. The Stockholm Convention is an agreement on internationally binding prohibition and restriction measures for certain persistent organic pollutants. Thus, the Convention prohibits or restricts the production, use and trade of dangerous substances, mixtures and articles.

Further information on the Stockholm Convention can be found on the official website under the following link:

<http://chm.pops.int/>

4.1.6 Product Safety Act (ProdSG)

The Product Safety Act (ProdSG) has been in force since 16 July 2021. It is the central legal provision for the safety of products.

These may only be made available on the market as part of a business activity if they do not endanger health and safety. According to § 3, this is permitted if the legal interests listed under § 8 (1) are not endangered by the intended or foreseeable use.

Making available on the Union market is equivalent to any supply, whether in return for payment or free of charge, of a product for distribution, consumption or use in the course of a business activity.

https://www.gesetze-im-internet.de/prodsg_2021/

4.1.7 Regulation (EU) No 2023/988 - Product Safety Regulation

Regulation 2023/988/EU (Product Safety Regulation) came into force on 12.06.2023 and became valid on 13.12.2024.

Products may only be placed on the Union market if they present no or low agreed risks to the health and safety of consumers under normal or reasonable foreseeable use.

A making available on the market is any supply, whether in return for payment or free of charge, of a product for distribution, consumption or use on the Union market in the course of its business activities.

4.2 Substance restrictions - valid for products from different areas of validity

In contrast to the substance restrictions in Section 4.1, the regulations described in this chapter require the supplier to check whether its products fall within the scope of the respective requirement. If it is not possible for the Supplier to clarify this matter independently, it must inform Techem GmbH immediately.

4.2.1 Regulation EU (2023/1542) - Battery Regulation 2023

The Regulation on Batteries and Waste Batteries, repealing Directive 2006/66/EC and amending Regulation (EU) 2019/1020 entered into force on 17 August 2023. Annex I to the regulation restricts the use of mercury, cadmium and lead.

Table 3: Maximum concentration for batteries

Substances	Maximum concentration in the article	Restrictions on use
Mercury and mercury compounds	0,0005 %	Batteries (in appliances and means of transport)
Cadmium and cadmium compounds	0,002 %	Portable batteries (in appliances and means of transport)
Lead and lead compounds	0,01 %	Portable

4.2.3 Directive 94/62/EC - Packaging Directive

DIRECTIVE 94/62/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 December 1994 on packaging and packaging waste restricts the concentration of heavy metals in packaging. The Packaging Act is the German implementation of Directive 94/62/EC.

According to Section 5 of the German Packaging Act, lead, cadmium, mercury and chromium-VI compounds may not exceed a cumulative maximum concentration of 100 ppm by weight in packaging or packaging components.

4.2.4 Regulation (EU) 2025/40 - Packaging Regulation

The new EU Packaging and Packaging Waste Regulation (PPWR) came into force on 11.2.2025. (REGULATION (EU) 2025/40 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 December 2024 on packaging and packaging waste, amending Regulation (EU) 2019/1020 and Directive (EU) 2019/904 and repealing Directive 94/62/EC).

A central aspect of this regulation is the substance restrictions for packaging. In addition to the existing restrictions on heavy metals, limit values for per- and polyfluorinated alkyl substances (PFAS) in food contact packaging are now also being set.

These new limits will apply from 12 August 2026 and are set as follows:

- a) 25 ppb for PFAS measured as part of a targeted analysis of PFAS (excluding polymeric PFAS),
- b) 250 ppb for the sum of PFAS measured as the sum of the targeted analysis of PFAS (excluding polymeric PFAS),
- c) 50 ppm for PFAS (including polymeric PFAS); if the total fluorine content of 50mg/kg is exceeded.

The regulation replaces the previous Directive 94/62/EC and introduces stricter obligations geared towards the circular economy. It applies to all packaging, regardless of the material used, and to all packaging waste, regardless of whether it is generated in industry or by the end consumer, with regard to

- Packaging compliance
- Restriction of hazardous substances
- Recyclability
- Minimum recycled content in plastic packaging
- Minimization of packaging
- Information obligations, notification and reporting obligations
- Bans on certain packaging formats and deceptive packaging
- Extended Producer Responsibility
- Reduction of packaging waste

4.2.3 Drinking Water Ordinance – TrinkwV 2023

Directive 2020/2184 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2020 on the quality of water intended for human consumption imposes requirements on drinking water.

The directive has been implemented in Germany by the Drinking Water Ordinance.

In particular, the requirements of § 13, according to which materials must comply with the general requirements of § 14, as well as the assessment bases according to § 15.

The following general requirements for materials and materials must be observed.

Materials used must not be

- directly or indirectly reduce human health,
- affect the colour, smell or taste of the water,
- promote the proliferation of microorganisms or
- Releasing substances into the water in larger quantities than is unavoidable in compliance with the generally accepted rules of technology.

In the event of deviations in content or supplementary requirements, both the relevant European directive and its national implementation in the form of the Drinking Water Ordinance (TrinkwV) must be complied with. If one of the two sets of rules – be it the directive or the regulation – standardizes stricter limit values, more extensive requirements or deviating parameters, in particular with regard to the date of entry into force, the stricter regulation must always be given priority and applied.

4.3 Declarable substances

4.3.1 SVHC Candidate List

The current version of the official SVHC Candidate List according to REACH (Regulation 1907/2006/EC) can be downloaded at any time at <https://echa.europa.eu/de/candidate-list-table>.

According to Article 33 of the REACH Regulation, every supplier is obliged to:

1. Each supplier of an article containing a substance meeting the criteria of Article 57 and identified in accordance with Article 59(1) in a concentration of more than 0.1 % by weight (w/w) shall provide the recipient of the article with the information available to him which is sufficient for the safe use of the product, but shall indicate at least the name of the substance concerned.

Ingredients of Very High Concern (SVHC Candidate List) in

- Components
- Spare parts
- Accessories
- Packaging

Insofar as the delivered products contain substances of very high concern in a proportion of more than 0.1 % by weight, which are published in the so-called candidate list pursuant to Art. 59 para. 1 of Regulation 1907/2006/EC, the contractor is obliged to provide all information pursuant to Art. 33 para. 1 of Regulation 1907/2006/EC with the delivery without being asked. This also applies if such a substance is only included in the candidate list during the ongoing supply relationship.

This information must be made available to private consumers free of charge within 45 days upon request.

According to the decision of the European Court of Justice, the concept of "once a product, always a product" applies. As soon as a product exceeds the concentration limit of 0.1 % by weight, the presence of this SVHC candidate substance must be communicated.

If you supply articles with SVHC candidate substances greater than 0.1 % by weight, we expect to receive your SCIP dossier number in addition to your Article 33 notification.

4.3.2 Conflict Minerals (CM) – Dodd-Frank Act

The U.S. Dodd Franc Act Sec. 1502, passed in 2010, requires companies listed on the U.S. stock exchange to review their own supply chain to see if conflict minerals are used to manufacture their products. If one of the conflict minerals is found, the origin must be disclosed in this report. Conflict minerals within the meaning of the law are tin (tin), tungsten (tungsten), tantalum (tantalum) and gold (gold) (synonym 3TG). The D.R. Congo and its neighboring states are defined as a high-risk conflict area.

Should Techem GmbH receive inquiries from its customers regarding the origin of conflict mitigations, it will forward these inquiries to its suppliers.

Notice of further information on the Dodd-Frank Act:

<https://www.sec.gov/News/Article/Detail/Article/1365171562058>

The Excel document of the <http://www.responsiblemineralsinitiative.org/> is preferred.

4.4 Production Aids and Supplies

4.4.1 Safety Data Sheets (SDS)

The safety data sheet is the central element of communication in the supply chain for hazardous substances and mixtures. It provides important information on the following features:

- Identity of the product
- Hazards that occur
- Safe handling
- Preventive measures
- Measures in case of danger.

The requirements for the content and format of the safety data sheet are regulated in Article 31 and Annex II of the REACH Regulation (EC) No. 1907/2006.

The supplier of a substance/mixture is responsible for ensuring that the safety data sheet is technically correct and complete.

The safety data sheet will be made available to Techem GmbH free of charge on paper, in electronic form or as a download option no later than the day of the 1st delivery.

Suppliers update the SDS without delay (Art. 31 (9)) if:

- new information is available that may have an impact on risk management measures;
- an authorization has been granted or refused,
- a restriction has been issued.

The corrected version must be made available to the customer if he has been supplied within the last 12 months.