



GLOBAL ORGANIC TEXTILE STANDARD
ECOLOGY & SOCIAL RESPONSIBILITY

GLOBAL RESPONSIBLE TEXTILE STANDARD (GRTS)

Draft Version 1.0

For Public Consultation

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The **Global Responsible Textile Standard (GRTS)** Version 1.0 is officially released in xxx 2025 and is effective for all Certified Entities and approved chemical inputs immediately thereafter.

The **Manual for the Implementation of GRTS** constitutes an integral and binding part of GRTS.

English¹ is the official language of GRTS. GRTS may release translations of the Standard and Manual in other languages on the GRTS website. However, in any case of inconsistencies between translations of GRTS into other languages, the original English version shall always be referred to.

Disclaimer

GRTS is a voluntary standard and does not intend to replace any legal or regulatory requirements of any country.

Revision Procedure

GRTS is envisaged to be revised every three years. Upon the publication of a new version, the transition period to meet the entire set of criteria is defined to be one (1) year unless an exceptional deadline is given for a specific section. Respective changes are also published as Changelog documents.

The next scheduled revision of GRTS shall take place in 2029. More information about the GRTS revision shall be made available on the GRTS website in due course. GRTS revision procedure is designed to adhere to the ISEAL Code of Good Practice for Sustainability Systems.

Feedback and suggestions may be submitted to revision@global-standard.org

Document Revision History

No previous version has been released prior to this one.

How to Read This Document

The following verbs are used to indicate requirements, recommendations, permissions, or capabilities in this document:

- “**shall**” indicates a mandatory requirement
- “**should**” indicates a recommendation
- “**may**” indicates a permission
- “**can**” indicates a possibility or capability

Availability of Documents:

GRTS and the Manual for the Implementation of GRTS, reference documents and any further relevant public information as released by Global Standard gGmbH are available for public download on the GRTS website

ABOUT Global Standard

Global Standard gemeinnützige GmbH is a not-for-profit organisation incorporated in Germany in 2002 for the purpose of administrating the Global Organic Textile Standard and the Global Responsible Textile Standard.

Vision

Our vision is a world where all textiles are produced in accordance with the principles of health, ecology, fairness and care to enhance people's lives and the environment. Organic textiles are an integral part of this holistic approach.

Mission

Our mission is to ensure the highest level of social and environmental impact in textile value chains through voluntary sustainability standards and related activities. This includes the development, implementation, verification, protection and promotion of GRTS. This standard stipulates requirements throughout the supply chain for both ecological and labour conditions in textile and apparel manufacturing using organically produced raw materials. Organic production is based on a system of farming that maintains and replenishes soil fertility without the use of toxic, persistent pesticides or synthetic fertilisers. In addition, it includes welfare standards for animal husbandry and prohibits genetically modified organisms. Further information is available at: www.global-standard.org.

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¹ British English is the language utilised in GRTS official documents.

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1. INTRODUCTION

1.1 Aim of GRTS

- 1.1.1 The aim of the GRTS (Global Responsible Textile Standard) is to define requirements to ensure the sustainable processing of textiles made with specific responsible fibres, from the production of the raw materials, through environmentally and socially responsible manufacturing up to labelling in order to provide a credible assurance to the end consumer.
- 1.1.2 GRTS draws primary requirements from the Global Organic Textile Standard (GOTS) and this document has numerous references to GOTS and GOTS Section numbers. While the current document confines itself to GOTS version 8.0, it shall be understood that should there be changes in that version, the references in this document shall be taken in context by the users of GRTS.

1.2 Scope and Structure

- 1.2.1 GRTS covers the processing, manufacturing, packaging, labelling, trading, and distribution of all textiles made from responsible textile fibres. The final product categories may include, but are not limited to, fibres, yarns, fabrics, garments, textile accessories (carried or worn), textile toys, home textiles, mattresses, beddings as well as personal care textile products, and Food Contact Textiles.
- 1.2.2 GRTS defines criteria for textile producers, manufacturers, B2B operators as well as textile chemicals used in the processing of goods.
- 1.2.3 GRTS requires that all processing, manufacturing, packaging, labelling, trading of goods shall be carried out only by entities that hold a GRTS Scope Certificate and are certified to the Global Organic Textile Standard (GOTS).
- 1.2.4 All relevant criteria stated in Section 1.2 of GOTS shall apply to GRTS as well.
- 1.2.5 The Manual for the Implementation of GRTS provides further implementation-related details of GRTS criteria, therefore, it constitutes an integral part of GRTS.

1.3 Reference Documents

- 1.3.1 Certified Entities, Approved Certification Bodies and other GRTS users, when implementing GRTS, shall follow the reference documents listed in this section.
- 1.3.2 **Manual for the Implementation of GRTS**
Provides interpretations and clarifications for specific criteria of GRTS. Its purpose is to prevent any inconsistent, inappropriate or incorrect interpretation of GRTS. The Manual further contains requirements and detailed specifications for the application of the GRTS and the implementation of the related quality assurance system for Approved Certification Bodies (referred to as the Implementation Manual).

1.3.3 Conditions for the Use of Signs – GRTS (CUS-GRTS)

Specifies the labelling conditions for companies participating in the GRTS certification system and defines the corresponding fees. It further sets the requirements to ensure correct and consistent application of registered GRTS Signs on products as well as advertisements.

1.3.4 Labelling Release for GRTS Goods

Provides a release form for labelling of GRTS Goods.

1.3.5 Policy for the Issuance of GRTS Scope Certificates and Template

Provides detailed instructions concerning policies, layout, format and text for issuing Scope Certificates (SCs) for GRTS.

1.3.6 Policy for the Issuance of GRTS Transaction Certificates and Template

Provides detailed instructions concerning policies, layout, format and text for issuing Transaction Certificates for GRTS.

1.3.7 The following GOTS documents shall also be applicable to GRTS

1.3.7.1 Materials, Processes & Products Classification

1.3.7.2 GOTS Geographic Classification

1.3.7.3 Approval Procedure and Requirements for Certification Bodies

1.3.7.4 Policy for Change or Migration of Certifier

1.3.7.5 GOTS Due Diligence Handbook for Certified Entities

1.3.7.6 Procedure for the Certification of Small-Scale Operators in Low-Risk Countries

2. GRTS SUPPLY CHAIN, TRACEABILITY AND QUALITY ASSURANCE

2.1 Responsible Textile Fibres

2.1.1 THE KEY REQUIREMENT OF RESPONSIBLE FIBRES ALLOWED IN GRTS SHALL BE THAT THEY ARE CERTIFIED TO STANDARDS THAT ADHERE TO THE FOLLOWING PRINCIPLES AND CRITERIA:

2.1.1.1 Chain of custody with identity preservation

2.1.1.2 Third-party certification scheme

2.1.1.3 No Genetically Modified Organisms (non-GMO)

2.1.1.4 No Highly Hazardous Pesticides used in production (HHPs)

2.1.1.5 Respect for animal welfare

2.1.1.6 No live lamb cutting (mulesing)

2.1.1.7 Non-toxic, closed-loop manufacturing for regenerated cellulosic and synthetic fibres

2.1.1.8 Cellulose feedstock to be non-GMO & from responsible forestry

2.1.1.9 Biopolymers shall be biodegradable and responsibly sourced

2.1.1.10 Inclusion of social norms in manufactured fibre production

2.1.2 RESPONSIBLE FIBRES SHALL ALSO BE PRODUCED WITH DUE CONSIDERATION FOR:

2.1.2.1 Reduction of GHG emissions

2.1.2.2 Reduced water use and contamination

2.1.2.3 Protection of soil health and biodiversity

2.1.3 THE FOLLOWING FIBRE TYPES ARE PERMITTED WITHIN GRTS:

2.1.3.1 Certified² organic or organic-in-conversion fibres <70% of the total fibre content

2.1.3.2 Natural fibres (plant and animal)

2.1.3.3 Regenerated cellulosic fibres

2.1.3.4 Recycled natural and synthetic fibres

2.1.3.5 Biopolymers

2.1.4 A very limited content of Virgin synthetic (polymer) fibres: only polyamide, polypropylene, elastomultiester (elasterell-p) and polyurethane (elastane), so long as these are essential for the functionality of the final consumer product.

2.1.5 Section 3 of this document gives more detail of the allowed and prohibited fibres in GRTS.

2.1.6 The Implementation Manual of GRTS includes detailed information about fibre selection criteria, a list of allowed fibre standards and how this list shall be reviewed and updated.

2.1.7 No fibres shall be used which originate from production projects with regard to which there is evidence of a persistent pattern of gross violations of the ILO core labour norms (as far as these are relevant for the production system) and/or irrefutable evidence of a persistent pattern of land grabbing methods.

2.1.8 The use of fibres, which originate from production projects located in high human rights risks areas, may require additional mitigation measures (for example, on-site social audits) to ensure that these production projects comply with GRTS Human Rights and Social Criteria.

2.1.9 Fibres entering into GRTS supply chains shall not be associated with projects that do not adhere to ecological protection, including animal welfare principles (e.g., no mulesing), biodiversity habitat, and non-deforestation.

² Certification requirements only as permitted within the Global Organic Textile Standard.

- 2.1.10 Fibres entering into GRTS supply chains (received by first processors) shall be sourced from producers that are registered in the Global Fibre Registry³ to help with traceability and compliance with non-deforestation regulations.

2.2 Certification and Auditing

- 2.2.1 Processors, manufacturers, and traders of GRTS Goods (intermediate and finished) shall be certified to GOTS requirements.
- 2.2.2 Certification shall be conducted by an Approved Certification Body based on annual on-site inspection cycle, including possible additional unannounced inspections based on a risk assessment of the operations.
- 2.2.3 Certified Entities shall hold a valid GRTS Scope Certificate that lists the certifiable product categories, product details, and processing categories (e.g., manufacturing, trading) that Certified Entities are qualified to perform under certification.
- 2.2.4 Certified Entities shall list any assigned Subcontractor involved in the processing of GRTS Goods on their Scope Certificate, relevant details, such as processing and product categories assigned to the Subcontractor.
- 2.2.5 Since GRTS Scope Certificates are based on GOTS certification, all exemptions applicable for GOTS shall apply for GRTS as well.
- 2.2.5.1 The Controlled Supply Chain Certification Scheme (CSCS) is designed to support small-scale operations⁴ in low-risk countries, by customising the certification process and reducing associated burdens shall also be applicable to GRTS. *The Procedure for the Certification of Small-Scale Operators in Low-Risk Countries Controlled Supply-Chain Certification Scheme (CSCS)* shall be followed in these cases.
- 2.2.5.2 Exemptions related to the certification of Traders, the annual on-site inspection cycle, and small-scale Subcontractors with low-risk potential are defined in the Manual for the Implementation of GOTS.
- 2.2.5.3 Certification exceptions and conditions for retailers are defined in the Manual for the Implementation of GOTS.
- 2.2.6 The entity under whose name or brand the labelled GRTS Goods are sold to the end consumer is responsible for exercising due diligence in ensuring compliance of the products with GRTS. See relevant section in the Conditions for the Use of Signs – GRTS (being developed at this time).
- 2.2.7 The basis for authorisation by the Global Standard gGmbH is an accreditation of the Approved Certification Body, in accordance with 'Approval Procedure and Requirements for Certification Bodies', by the main cooperation partner of the Global

³ The Global Fibre Registry is being setup and operated by Global Standard gGmbH.

⁴ A supply chain consisting of a minimum of 8 and a maximum of 30 small-scale facilities with 20 or fewer workers each.

Standard gGmbH for this process, IOAS Inc., or another recognised Accreditation Body.

2.3 Scope Certificate

- 2.3.1 Processors, manufacturers, traders, and retailers that have demonstrated their ability to comply with the relevant criteria in the corresponding certification procedure to an Approved Certification Body receive a GRTS Scope Certificate (SC) issued in accordance with the Policy for the Issuance of GRTS Scope Certificates.
- 2.3.2 Scope Certificates list the product categories and related details that the Certified Entities can offer in compliance with GRTS, as well as the processing, manufacturing, and trading activities that are qualified under the scope of certification.
- 2.3.3 Subcontractors and their relevant processing and manufacturing steps become listed on the Scope Certificate of the Certified Entity assigning the certification.

2.4 Transaction Certificate

- 2.4.1 Transaction Certificates (TCs) are the key enablers of traceability and transparency of the GRTS supply chain. TCs are issued by Approved Certification Bodies in accordance with the Policy for the Issuance of GRTS Transaction Certificates after due verification when GRTS certified goods move along the certified GRTS supply chain.
- 2.4.2 Volume Reconciliation shall be a complementary mechanism to verify claims of GRTS Goods.

2.5 Record Keeping, Internal Quality Assurance⁵

- 2.5.1 All requirements of the complementary GOTS Section 2.5 shall apply for GRTS fibres.
- 2.5.2 Certified Entities purchasing GRTS Goods (intermediate and finished) shall receive and maintain GRTS Scope and Transaction Certificates, issued by an Approved Certification Body for the whole quantity of GRTS Goods purchased, in accordance with the Policy for the Issuance of GRTS Scope Certificates and the Policy for the Issuance of GRTS Transaction Certificates.
- 2.5.3 Certified Entities shall collect, collate, and share non-commercial information related to impact measurement if and as required by Global Standard.
- 2.5.4 Supply Chain Operators shall mandatorily work with the Global Trace-Base system developed by Global Standard to ensure records are correct, updated and verified.

⁵These conditions equally apply to registered Traders, if and as relevant

2.6 Segregation, Storage, Packaging and Transport of GRTS Goods

2.6.1 B2B TRADE OF GRTS GOODS (PRE-RETAIL)

- 2.6.1.1 All GRTS Goods shall be stored and transported in such a manner so as to prevent them from being contaminated by contact with prohibited Substances and commingling with conventional products or substitution of the contents.
- 2.6.1.2 Certified Entities shall establish a system of segregation to prevent responsible fibres and GRTS Goods from being commingled or substituted with other fibres.
- 2.6.1.3 All GRTS Goods shall be clearly labelled and identified as such along the entire stages of the supply chain.
- 2.6.1.4 Transportation means and shipping documents shall be documented.
- 2.6.1.5 The use of plastic packaging materials should be minimised. Synthetic packaging material shall not contain chlorinated plastics (e.g. PVC).

2.6.2 B2C TRADE OF GRTS GOODS (RETAIL)

- 2.6.2.1 Finished GRTS Goods with complete GRTS labelling can be stored and transported together with conventional products of similar type ensuring no risk of product substitution and of chemical contamination.
- 2.6.2.2 All other requirements of the complementary GOTS Section 2.6.2 shall apply for GRTS.

2.7 GRTS Signs and Labelling Conditions

- 2.7.1 Only those products – finished, intermediate or combined⁶ - produced by a Certified Entity and certified by an Approved Certification Body can be labelled, represented, advertised, or sold as GRTS Goods.
- 2.7.2 GRTS labelling can only be applied to the product and/or its packaging by a Certified Entity, and such labelling shall be approved in advance by the Certified Entity's Certifier.
- 2.7.3 “Conditions for the Use of Signs - GRTS” shall be followed for the labelling and advertising of GRTS Goods.
- 2.7.4 The GRTS Signs comprise two registered trademark elements: the GRTS logo and the wordmark “GRTS” as detailed in the following:

⁶ Refer to Section 1.2.1, in the Manual for the Implementation of GRTS 8.0

- 2.7.5 The “GRTS logo” (currently being developed) refers to the registered pictorial mark, which includes the graphical icon, the circle element, and the surrounding letters “Global Responsible Textile Standard -GRTS”.



- 2.7.5.1 The “wordmark” refers to the registered text-based mark that is “GRTS”.

- 2.7.6 Labelling of GRTS Goods shall always include the following mandatory elements:

- 2.7.6.1 The GRTS logo.

- 2.7.6.2 The Accompanying Labelling Information, which shall include the reference to the Approved Certification Body and the SCO-ID of the Certified Entity.

- 2.7.7 Labelling and advertising of GRTS Goods, use of the GRTS signs shall always be in compliance with the document Conditions for the Use of Signs – GRTS.

3. MATERIAL INPUT REQUIREMENTS

3.1 Responsible Fibre Content

- 3.1.1 Only those fibres as defined in Section 2.1 shall be used in GRTS Goods.

3.2 Additional Fibre Materials

- 3.2.1 GRTS Goods can only be blended with explicitly listed and allowed fibres below.

- 3.2.2 **TABLE – ALLOWED AND PROHIBITED ADDITIONAL FIBRES ⁷**

REQUIREMENTS FOR ADDITIONAL FIBRE TYPES	CRITERIA
Allowed fibres	
1. Virgin synthetic (polymer) fibres and only: polyamide, polypropylene, elastomultiester (elasterell-p), polyurethane, elastane (spandex) and elastolefin.	✓ ALLOWED <i>Individually or in combination as a sum total up to 10% (≤10%)</i>
2. Stainless steel fibres and mineral fibres	

⁷The percentage figures refer to the fibre composition of the products under standard testing conditions.

REQUIREMENTS FOR ADDITIONAL FIBRE TYPES	CRITERIA
Prohibited fibre types (miscellaneous):	
1. Conventional cotton (virgin, recycled, non-GMO)	X PROHIBITED
2. Conventional angora hair fibre	
3. Mulesed wool	
4. Virgin polyester	
5. Acrylic	
6. Asbestos, carbon and silver fibres	
7. Any other not explicitly permitted fibres	

Table 1: Allowed and Prohibited Additional Fibres

3.3 Accessories

3.3.1 All requirements of GOTS Section 3.3 shall apply to GRTS, with the following exceptions :

ACCESSORIES	CRITERIA
Linings, interlinings	
1. All materials listed in Section 2.1	✓ ALLOWED
Filling, stuffing	
- For textile fibre use (textile fibres used as fillings are not considered as Accessories)	
1. All materials listed in Section 2.1	✓ ALLOWED

Table 2: Allowed and Prohibited Accessories

4. ENVIRONMENTAL, SOCIAL AND GOVERNANCE CRITERIA

4.1 Due Diligence Management Process

4.1.1 All requirements contained within GOTS Section 4.1 shall apply for GRTS.

4.2 Chemical Management

4.2.1 All provisions contained within Section 4.2.1 of GOTS shall apply to GRTS.

4.2.2 Only GOTS approved chemical inputs shall be used for the processing of GRTS Goods and therefore shall not require a separate Letter of Approval.

4.2.3 All provisions within GOTS Sections 4.2.2 (Prohibited and Restricted Inputs), 4.2.3 (Requirements related to Hazard and Toxicity of Inputs), 4.2.4 (Product Stewardship of Chemical Inputs), and 4.2.5 Environment Management, Occupational Health and

Safety for. Chemical Suppliers/Formulators) shall apply to the chemicals used for the processing of GRTS goods with the following additional provisions / modifications:

4.2.4 **TEXTILE PROCESSING CRITERIA**

- 4.2.4.1 All provisions within GOTS Section 4.2.6 shall apply to GRTS with the following additional provisions / modifications. Processing shall be carried out only using GOTS approved chemical inputs

4.3 Environmental Criteria

- 4.3.1 All provisions contained within GOTS Section 4.3 shall be applicable for GRTS, with appropriate consideration for GRTS responsible fibres.

4.4 Human Rights and Social Criteria

- 4.4.1 All provisions contained within GOTS Section 4.4 shall be applicable for GRTS.

4.5 Governance Criteria

- 4.5.1 All provisions within GOTS Section 4.5 shall be applicable for GRTS.

5. PRODUCT COMPLIANCE CRITERIA

GRTS not only sets requirements for the processing stages but also mandates product-level environmental compliance as the Standard certifies final textile goods as a whole that includes accessories and packaging details:

5.1 Quality Management of GRTS Goods

- 5.1.1 All provisions contained in GOTS Section 5.1 shall be applicable for GRTS.

5.2 Quality Testing Parameters

- 5.2.1 All provisions contained in GOTS Section 5.2 shall be applicable for GRTS.

5.2.2 **QUALITY PERFORMANCE PARAMETERS**

- 5.2.2.1 All provisions contained in GOTS Section 5.2.2 shall be applicable for GRTS.

5.2.3 LIMIT VALUES FOR RESIDUES IN GRTS GOODS

5.2.3.1 Even if produced in compliance with this Standard, textiles may carry traces of residues (e.g. due to unavoidable contamination).

5.2.3.2 The following table lists the corresponding limit values for GRTS Goods:

PARAMETER	CRITERIA (limit values)	TEST METHOD
Alkylphenol (ethoxylates)		
NP, OP, HpP, PeP, NPEO, OPEO sum parameter	< 20 mg/kg	For AP: ISO 21084:2019 For NP, OP: Extraction, derivatisation, GC/MS or HPLC/MS
NP, OP, HpP, PeP sum parameter	< 5 mg/kg	For NPEO, OPEO: Extraction in methanol, derivatisation, HPLC/MS: EN ISO 18254-1 or NPLC: EN ISO 18254-2 (test range for NPEO and OPEO: 3-15 moles)
AOX	< 5 mg/kg	Extraction with boiling water, adsorption on charcoal; AOX analyser based on ISO 9562 Alternatively: HJ/T 83-2001
Arylamines		
With carcinogenic properties (amine-releasing azo dyes MAK III, category 1,2,3)	< 20 mg/kg	EN 14362-1 and -3; (HPLC/GCMS)
Aniline, free (MAK III category 4)	< 20 mg/kg	EN 14362-1; (HPLC/GCMS) without reductive cleavage
Bisphenols		
Bisphenol A	< 10 mg/kg	ISO/CD 23377
Bisphenol B, AF, F, S (each)	<1000 mg/kg	
Disperse dyes (classified as allergenic⁸ or carcinogenic)	< 20 mg/kg	DIN 54231; (LC/MS)
Formaldehyde	< 16 mg/kg	Japanese Law 112; or based on ISO 14184-1
Flame retardants	Sum < 50 mg/kg Each < 5 mg/kg	No intentional use of prohibited flame retardants. EN ISO 17881-1/2
Glyoxal and other short-chain aldehydes (mono- and di-aldehydes up to C6)	< 20 mg/kg	Extraction (acc. to ISO 14184-1), ISO 17226-1 (HPLC)
pH value	4.0 – 7.5	ISO 3071
Chlorophenols		
		LFGB 82-02-08/ EN ISO 17070 (GC/MS)
PCP	< 0.01 mg/kg	
TeCP	< 0.01 mg/kg	
TrCP	< 0.2 mg/kg	
DCP	< 0.5 mg/kg	

⁸See a list of allergenic disperse dyes in Section 4.2.6.6, in the Manual for the Implementation of GRTS V7.0

PARAMETER	CRITERIA (limit values)	TEST METHOD
MCP	< 0.5 mg/kg	
O-Phenyl Phenol (OPP)	< 1.0 mg/kg	
Pesticides, sum parameter		
All natural fibres (except shorn wool)	< 0.1 mg/kg	§ 64 LFGB L 00.00-34 (GC/MS); § 64 LFGB L 00.00-114 (LC/MS/MS); L 00.00-115
Shorn wool ⁹	< 0.5 mg/kg	
Extractable heavy metals	In eluate. Figures in mg/kg refer to textile	
Antimony (Sb) For polyester	< 0.2 mg/kg < 30 mg/kg	EN 16711-2, ISO 17294-2 (ICP/MS)
Arsenic (As)	< 0.2 mg/kg	
Cadmium (Cd)	< 0.1 mg/kg	
Chromium (Cr)	< 1.0 mg/kg	
Cobalt (Co)	< 1.0 mg/kg	
Copper (Cu)	< 25.0 mg/kg	
Lead (Pb)	< 0.2 mg/kg	
Nickel (Ni)	< 1.0 mg/kg	
Mercury (Hg)	< 0.02 mg/kg	
Selenium (Se)	< 0.2 mg/kg	
Tin (Sn)	< 2.0 mg/kg	
Manganese (Mn)	< 90 mg/kg	
Zinc (Zn)	< 750 mg/kg	
Barium (Ba)	< 1000 mg/kg	
Chromium VI (Cr-VI)	< 0.5 mg/kg	
Total heavy metals (in digested sample)		
Cadmium (Cd)	< 40 mg/kg	EPA 3050 B, ICP/MS, EPA 3051 or EN 16711-1
Lead (Pb)	< 50 mg/kg	EPA 3050 B, ICP/MS, EPA 3051 or EN 16711-1
Organotin compounds		
TBT	< 0.05 mg/kg	Extraction in solvent, ISO 17353 (GC/MS) or ISO/TS 16179 or ISO 22744-1:2020, Part 1 and Part 2
TphT	< 0.05 mg/kg	
DBT	< 0.05 mg/kg	
DOT	< 0.05 mg/kg	

⁹ Shorn wool refers to virgin wool sheared from living animals, which is new or in other words non-recycled, ready for the spinning process, and has typically undergone scouring or washing process.

PARAMETER	CRITERIA (limit values)	TEST METHOD
MBT	< 0.1 mg/kg	
DMT, DPT, MoT, MMT, MPhT, TeBT, TCyHT, TMT, TOT, TPT, DphT, TeET	< 0.1 mg/kg	
Per- and polyfluoroalkyl Substances (PFAS) PFOA and related Substances such as		
Me-PFOA, Et-PFOA	< 0.025 mg/kg	
PFOS and PFAS C9-C14	< 0.025 mg/kg	DIN EN 17681-1 DIN EN 17681-2
C9-C14 related PFAS	< 0.1 mg/kg	
FTOH	< 0.01 mg/kg	
Phthalates		
Such as BBP, DBP, DCHP, DEHP, DEP, DHNUP, DHP, DHxP, DIBP, DIDP, DIHP, DIHxP, DINP, DMEP, DMP, DNOP, DNP, DPP, DPrP	Sum < 100 mg/kg; Each < 50 mg/kg	DIN EN 15777:2009-12 (GC/MS) or ISO 14389
Polycyclic Aromatic Hydrocarbons (PAH)		
Sum	< 5.0 mg/kg	
Chrysene	< 0.5 mg/kg	
Benzo[a]anthracene	< 0.5 mg/kg	
Benzo[b]fluoranthene	< 0.5 mg/kg	
Benzo(j)fluoranthene	< 0.5 mg/kg	
Benzo[k]fluoranthene	< 0.5 mg/kg	
Benzo[a]pyrene	< 0.5 mg/kg	
Benzo(e)pyrene	< 0.5 mg/kg	
Dibenzo[a,h]anthracene	< 0.5 mg/kg	AfPS GS 2019:01 PAK
Naphthalene	< 1.0 mg/kg	
Acenaphthylene	< 1.0 mg/kg	
Acenaphthene	< 1.0 mg/kg	
Fluorene	< 1.0 mg/kg	
Phenanthrene	< 1.0 mg/kg	
Anthracene	< 1.0 mg/kg	
Fluoranthene	< 1.0 mg/kg	
Pyrene	< 1.0 mg/kg	
Indeno[1,2,3-cd]pyrene	< 1.0 mg/kg	

PARAMETER	CRITERIA (limit values)	TEST METHOD
Benzo[g,h,i]perylene	< 1.0 mg/kg	
Cyclopenta (c,d)pyrene	< 1.0 mg/kg	
Dibenzo [a,e] pyrene	< 1.0 mg/kg	
Dibenzo [a,h] pyrene	< 1.0 mg/kg	
Dibenzo [a,i] pyrene	< 1.0 mg/kg	
Dibenzo [a,l] pyrene	< 1.0 mg/kg	
1-Methylpyrene	< 1.0 mg/kg	
Chlorinated paraffins, sum parameter		
Short Chain Chlorinated Paraffins (C10-13) & Medium Chain Chlorinated Paraffins (C14-17)	Sum < 50 mg/kg Each < 5 mg/kg	ISO 22818
Cyclic siloxanes		
D4, D5, D6	Each < 1000 mg/kg	DIN EN 17137
Chlorinated benzenes & toluenes	Sum < 1.0 mg/kg Each < 1.0 mg/kg	
Styrene	< 10 mg/kg	
Xylene	< 1 mg/kg	
Solvent residues		
NMP, DMAc, DMF	0.05% by weight	Extraction with methanol, GC-MS or dynamic headspace
Formamide	0.02% by weight	
Quinoline	< 20 mg/Kg	DIN 54231:2005 with methanol extraction followed by LC/MS
Other chemical residues		
Azodicarboxamide/ Azodicarbonamide/ Diazene-1,2-dicarboxamide (ADCA)	< 1000 mg/kg	
Nonylphenol ethoxylates	100 mg/kg	
Natural latex foam		
Butadiene	< 1.0 mg/kg	GC - FID LFGB 82-02-08 (GC/MS) Chamber test, DIN ISO 16000-6 Chamber test; ZH 1/120-23 or BGI 505-23 for air sampling and analysis
Chlorophenols (incl. salts and esters)	< 1.0 mg/kg	
Carbon disulphide	< 0.02 mg/m³	
Nitrosamines	< 0.001 mg/m³	

Table 3 : Limit Values for Chemical Residues in GRTS Goods

5.3 Circularity Principles of GRTS Goods

5.3.1 All provisions contained in GOTS Section 5.3 shall apply to GRTS.

6. SUPPORT FOR GOTS

- 6.1 One of the purposes of GRTS is to support, promote and allow certified entities to produce GOTS certified organic goods.
- 6.2 All GOTS Approved Certification Bodies shall be permitted to issue Scope Certificates for GRTS without any additional accreditation for the specific scopes that they currently hold with GOTS.
- 6.3 Existing GOTS Certified Entities shall directly receive authorisation to process GRTS Goods, after receiving a GRTS Scope Certificate, following a specific request to their Certification Body, a verification by the Certification Body of the capabilities of the Certified Entity and shall require payment of the requisite fees to Global Standard.

7. DEFINITIONS

For the purpose of this Standard, the following terms are defined: A majority of these terms are common to the Global Organic Textile Standard (GOTS).

TERM	DEFINITION FOR THE PURPOSE OF THIS STANDARD
Accessories	<i>Items that are added to supplement GRTS Goods for required functional or for fashionable reasons. Most commonly used Accessories are listed in Section 3.3. The processing of those Accessories is not under the direct scope of the GRTS on-site certification system. GRTS criteria that applies to Accessories are listed in Sections 3.3 and Error! Reference source not found.</i>
Approved Certification Body/ Approved Certifier	<i>An Approved Certification Body or Approved Certifier is a certification body that has been duly accredited by an Accreditation Body. By signing a contract with Global Standard gGmbH, they are permitted to implement the Global Responsible Textile Standard within a designated geographical area and for specific scopes of the Standard. An updated list of Approved Certification Bodies and their scopes is available on the GOTS Website.</i>
Certified Entity	<i>Processor, manufacturer, trader or retailer of GRTS Goods certified by an Approved Certification Body.</i>
Chemical Formulator /Supplier	<i>A Chemical Formulator places chemical products on the market under own trade name. Generally the recipe, formulation and processing know-how belong to the Chemical Supplier. These chemical products can be manufactured by either the Chemical Supplier itself, or another Chemical Formulator or a toll-manufacturer.</i>
Chemical Subcontractor (toll manufacturing)	<i>Producing of chemical products on behalf of another Chemical Supplier. The recipe, process technology and know-how belong to the Chemical Supplier, not the manufacturer.</i>
Chemical Trader (rebranding)	<i>Purchasing of finished chemical products from a Chemical Supplier and distribution of these products under own brand/trade name and responsibility. Some chemical companies are using the term “sourcing” as synonym for this activity.</i>
Coating	<i>One- or two-sided application of coating compounds or foam films to fabric by means of coating machines, rotary screen printing or by means of spray, hot melt and transfer coating methods.</i>
Endocrine Disruptor	<i>An substance or mixture that alters one or more functions of the endocrine system and consequently causes adverse effects in an intact organism, its progeny, populations or subpopulations. “Adverse effect” means a change in morphology, physiology, growth, development, reproduction or lifespan of an organism, system, population or subpopulation that results in an impairment of functional capacity, an impairment of the capacity to compensate for additional stress or an increase in susceptibility to other influences. Source: Commission Regulation (EU) 2023/707.</i>
Facility	<i>An individual establishment or site where processing, manufacturing, trading or retailing of GRTS Goods is done. It is operated by a Certified Entity and inspected by an Approved Certification Body.</i>
Food Contact Textiles	<i>Any textile articles that are intended to come into prolonged contact with, or are already in contact with, or can reasonably be expected to be brought into contact with or to transfer their constituents to food or water intended for human consumption under normal or foreseeable conditions of use.</i>
Formulation	<i>A Formulation is the finished chemical product sold or distributed ready for use.</i>
Formulator	<i>An organisation involved in manufacturing, producing or creating a mixture of chemical Substances blended together (Formulation) to be used for textile processing.</i>
GRTS Goods	<i>Textile goods (finished or intermediate) produced in compliance with GRTS (and properly labelled, as applicable) by a Certified Entity and certified by an Approved Certification Body.</i>

TERM	DEFINITION FOR THE PURPOSE OF THIS STANDARD
Heavy Metal Free	<p>An Input is considered as 'Heavy Metal Free' if it does not contain heavy metals as a functional constituent and any impurity contained does not exceed the following limit values (as set by ETAD for dyes): Antimony: 50 mg/kg, Arsenic: 50 mg/kg, Barium: 100 mg/kg, Cadmium: 20 mg/kg, Cobalt: 500 mg/kg, Copper: 250 mg/kg, Chromium: 100 mg/kg, Iron: 2500 mg/kg, Lead: 100 mg/kg, Manganese: 1000 mg/kg, Nickel: 200 mg/kg, Mercury: 4 mg/kg, Selenium: 20 mg/kg, Silver: 100 mg/kg, Zinc: 1500 mg/kg, Tin: 250 mg/kg</p> <p>Special Limits for Pigments: Cadmium: 50 mg/kg; Mercury: 25 mg/kg.</p>
Homeworker	Individuals carrying out work for remuneration in their home or at other premises mutually agreed with the employer, other than the regular workplace of the employer.
Input	General term for all Substances and Preparations directly applied as textile auxiliary agents, inks, dyes or pigments.
Machine Oil	Oil intended essentially for lubrication of machines and machine parts used for processing of GRTS Goods, including but not limited to spinning, weaving, knitting etc. and which may come in contact with GRTS Goods.
Manufacturer	An entity in the manufacturing chain (sewing industry or so-called CMT (cut, make, trim) industry up to labelling and final packing) of GRTS Goods.
Microplastics	<p>Based on the working definition of ECHA: 'Microplastic' means a particle containing solid polymer, to which additives or other Substances may have been added, and where $\geq 1\%$ w/w of particles have all dimensions $1\text{ nm} \leq x \leq 5\text{ mm}$, or a length of $3\text{ nm} \leq x \leq 15\text{ mm}$ and length to diameter ratio of > 3. Natural polymers that have not been chemically modified are excluded, as are polymers that are (bio)degradable or have a water solubility $> 2\text{ g/L}$.</p> <p>https://echa.europa.eu/documents/10162/b56c6c7e-02fb-68a4-da69-0bcbd504212b</p>
Migrant Worker	Individual who migrates from one geographical region to another with a view of being employed. The term covers any person regularly admitted as a migrant for employment.
Mulesing	Removal of wool-bearing strips of skin from the breech area of sheep intended to avoid problems of flystrike. This includes any type of breech modification, including freeze branding/steining. Mulesing is often referred to as live lamb cutting.
Natural Materials	Natural material is any product or physical matter that comes from plants, animals, or the ground. Minerals and the metals that can be extracted from them are also considered to belong to this category. Natural Materials include biotic materials (materials that originate from living organisms such as (organic) natural fibre, wood, leather, horn, bone, shell, seed and plant oils etc.) and non-biotic materials (such as minerals, metals, stone).
Organic in-conversion	A product from an operation or portion thereof which has completed at least 12 months under organic management and is under the supervision of an Approved Certification Body.
Permanent AOX	AOX is permanent if it is permanently bound to the molecule (e.g. in the chromophore of a dyestuff or pigment) and cannot get hydrolysed or released during textile processing instead remains on textiles.
Positive List	GRTS Positive List contains GRTS-compliant chemical products which are evaluated and approved by GRTS approved chemical auditors. The List provides trade names of the chemicals and immediate access to all chemical Inputs which are allowed to use GRTS products.
Post-consumer Waste	Material generated by households or by commercial, industrial and institutional facilities in their role as end-users of the product that can no longer be used for its intended purpose. This includes returns of materials from the distribution chain.
Pre-consumer Waste	Material diverted from the waste stream during the manufacturing process. Excluded is the reutilisation of materials such as rework, regrind or scrap generated in a process and capable of being reclaimed within the same

TERM	DEFINITION FOR THE PURPOSE OF THIS STANDARD
	<i>process.</i>
Preparations	<i>Mixtures or solutions composed of two or more Substances.</i>
Processor	<i>An entity in the processing chain (post-harvest handling up to finishing) of GRTS Goods.</i>
Protein-based Regenerated Fibres	<i>Azlon is the generic name given to protein based regenerated fibres in which the fibre-forming Substance is composed of any regenerated, naturally occurring protein. The fibre-forming Substance can be derived from various naturally occurring proteins such as skimmed milk (casein), eggs (albumin), corn and soy (zein), hide waste (collagen) etc.</i>
Direct and Indirect GHG Emission Sources: Scope 1, 2 & 3	<p>Scope 1: Direct GHG emissions <i>Direct GHG emissions occur directly from sources that are owned or controlled by the company, for example, emissions associated with on-site combustion in owned or controlled boilers, furnaces, vehicles, etc.</i></p> <p>Scope 2: Indirect GHG emissions <i>Scope 2 accounts for GHG emissions from the generation of purchased electricity which is consumed by the company. Scope 2 emissions physically occur at a Facility where electricity is generated.</i></p> <p>Scope 3: Other indirect GHG emissions <i>Scope 3 emissions result from the activities of the company along the value chain from sources not owned or controlled by the company. Some examples of scope 3 activities are extraction and production of purchased materials; transportation of purchased fuels; and use of sold products and services.</i></p> <p><i>Reference:</i> https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf</p>
SCO-ID	<i>The unique identification number provided by the Global Trace-Base of Global Standard to every Supply Chain Operator in the Global Standard environment.</i>
Site	<i>An individual establishment where chemical Inputs are formulated (see Formulator) and produced. It is included in a Letter of Approval and audited by a Scope 4 Approved Certification Body.</i>
Subcontractor	<i>An entity in the supply chain of GRTS Goods performing job work (in the field of processing or manufacturing) for a Certified Entity without becoming the proprietor of the GRTS Goods. A Subcontractor may be independently certified to GRTS.</i>
Substances	<i>Chemical elements and their compounds as they occur in the natural state or as produced by industry.</i>
Textiles for Babies	<i>Textile products used for babies and small children up to the age of 36 months</i>
Topical Products	<i>Any device that does not penetrate inside the body, either through a body orifice or through the skin</i>
Trader	<p><i>Entity trading with (=buying and selling) GRTS Goods in the supply chain between the producer of the fibre and the retail merchant of the final product regardless of whether the goods are physically received or not (e.g. an import, export or wholesale trading entity).</i></p> <p><i>Agents that do not become proprietors of the goods and retailers only selling to the end consumer are not considered Traders.</i></p>
Volume Reconciliation	<i>Calculation process by which it is ascertained that output volumes of a product's certified materials are compatible with their corresponding Input volumes. Input volume and output volume of certified material for a product are compatible if their ratio falls within a percentage range, which reflects estimated production losses specific to the production process of the particular product and if the Input volume can be demonstrated to have been available on stock.</i>
Wage Gap	<i>The difference between average Living Wage and Average Wages Paid to Workers in a Certified Entity.</i>
Wholly Owned Subsidiary	<i>A subsidiary company is considered wholly owned when all of the common stock is owned by another company, the parent company. With a wholly-</i>

TERM	DEFINITION FOR THE PURPOSE OF THIS STANDARD
	<i>owned subsidiary, the company's stock is not traded publicly. It remains an independent legal body, a corporation with its own organized framework and administration. Its day-to-day operations are likely directed entirely by the parent company, however.</i>
Worker	<i>Any individual engaged in work who is not a senior manager or owner.</i>
Young Worker	<i>A Worker who is older than the minimum age but less than 18 years old.</i>

Table 4: Definitions of Terms Used in the Standard

8. LIST OF ACRONYMS & ABBREVIATIONS

α-MES	α-methyl ester sulphonate (C16/18)	DSDMAC	Distearyldimethylammonium chloride
AOX	Adsorbable Organic Halogens	DTDMAC	Ditalowdimethylammonium chloride
APEDA	Agricultural & Processed Food Products Export Development Authority, India	DTPA	Diethylenetriamine penta-acetate
APEO	Alkylphenoethoxylates	EC	European Commission
APs	Alkylphenols	EC₅₀	Effect concentration (50%)
B2B	Business to Business	ECHA	European Chemicals Agency
B2C	Business to Consumer	EDTA	Ethylendiamine tetra-acetate
BBP	Benzylbutyl phthalate	ETAD	Ecological and Toxicological Association of Dyes and Organic Pigments Manufacturers
BOD	Biological Oxygen Demand	FCTs	Food Contact Textiles
COD	Chemical Oxygen Demand	FTOH	Fluorotelomer alcohols
DBP	Dibutyl phthalate	GHS	Globally Harmonized System of Classification and Labelling of Chemicals
DBT	Dibutyltin	GLP	Good Laboratory Practice
DCHP	Di cyclohexylphthalate	GMO	Genetically modified organisms
DEHP	Diethylhexyl phthalate	GMP	Good Manufacturing Practices
DEP	Diethyl phthalate	GRTS	Global Responsible Textile Standard
DHNUP	Di-C7-11 branched and linear alkylphthalates	HpP	Heptylphenol
DHP	Di-n-hexylphthalate	IC₅₀	Inhibition concentration (50% inhibition)
DHTDMAC	Dihydrogenated tallow dimethylammonium chloride	IFOAM	International Federation of Organic Agriculture Movements
DHxP	Di hexyl phthalates	ILO	International Labour Organisation
DIBP	Di-isobutyl phthalate	IOAS	International Organic Accreditation Service
DIDP	Diisodecyl phthalate	ISO	International Organization for Standardization
DIHP	Di-C6-8 branched alkylphthalates	IUCN	International Union for Conservation of Nature
DIHxP	Di-iso hexylphthalate	IVN	International Association Natural Textile Industry, Germany
DINP	Diisononyl phthalate	JOCA	Japan Organic Cotton Association
DMAc	Dimethylacetamide	LAS	Linear alkyl benzene sulphonate
DMEP	Bis(2-methoxyethyl) phthalate	LC50	Lethal concentration (50% mortality)
DMF	Dimethylformamide	MAK	Maximum Allowable Concentration (of a Substance at the working place). <i>The parameter refers to the</i>
DNOP	Di-n-octyl phthalate		
DNP	Di-n-nonylphthalate		
DPhT	Diphenyltin		
DPP	Dipentylphthalate		
DPrP	Di-n-propyl phthalate		
DPT	Dipropyltin		

	<i>findings and categorisation of a German research commission</i>
MBT	Monobutyltin
MMT	Monomethyltin
MOT	Monooctyltin
MPhT	Monophenyltin
NMP	N-Methyl-2-pyrrolidone
NP	Nonylphenol
NPEO	Nonylphenol ethoxylates
NTA	Nitrilotriacetic acid
OECD	The Organisation of Economic Cooperation and Development
OP	Octylphenol
OPEO	Octylphenol ethoxylates
OTA	Organic Trade Association, USA
PAH	Polycyclic aromatic hydrocarbons
PCB	Polychlorinated Biphenyls
PCP	Pentachlorophenol
PeP	Pentylphenol
PFAS	Per- and polyfluoroalkyl Substances
PFCA	Perfluorinated carboxylic acids
PFDA	Perfluoro-decanoic acid
PFHpA	Perfluoro-heptanoic acid
PFNA	Perfluoro-nonanoic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctane sulfonate
PFOSA	Perfluoro-octane-sulfon-amide
PFSA	Perfluorosulfonic acids
PPE	Personal Protective Equipment
PTFE	Polytetrafluoroethylene
PVC	Polyvinyl chloride
REACH	EC Regulation regarding Registration, Evaluation, Authorisation and Restriction of Chemicals
SA	Soil Association, UK
TBT	Tributyltin
TCyHT	Tricyclohexyltin
TeBT	Tetrabutyltin
TeCP	Tetrachlorophenol

TeET	Tetraethyltin
TMT	Trimethyltin
TOC	Total Organic Carbon
TOT	Trioctyltin
TPhT	Triphenyltin
TPT	Tripropyltin
USDA	United States Department of Agriculture

Table 5: Table of Abbreviations used in the Standard