



GLOBAL ORGANIC TEXTILE STANDARD
ECOLOGY & SOCIAL RESPONSIBILITY

WHY GOTS?

CONTROL OF CHEMICALS IN GOTS GOODS

The Global Organic Textile Standard (GOTS) is recognised as the world's leading processing standard for textiles (clothing, home textiles, personal care products and food contact textiles) made from certified organically produced raw materials. It includes strict environmental and social criteria for operations along the entire textile supply chain. GOTS is recognized in all markets around the globe and the numbers are growing; in 2019 more than 7.700 facilities were certified to GOTS.



As the world's leading standard for processing of organic fibres, GOTS covers not only the use of certified organic fibres, but also requires conformance with stringent environmental and social criteria throughout the textile processing chain. The industry uses various amounts of chemicals during textile processing. The wastewater produced in this process contains large amounts of dyes and chemicals.

This fact sheet summarises the Control of Chemicals in GOTS Goods.

The standard criteria exercises control on hazardous chemicals at three different stages:

Stage 1: Approval Prior to Use

Stage 2: Processed Main Textile Material

Stage 3: Accessories and Additional Fibres

→ Stage 1: Approval Prior to Use

All GOTS approved chemical inputs have been screened in detail before they are used for wet processing of GOTS certified textile articles.

- Chemical inputs used for processing of GOTS Goods shall be approved prior to use.
- Inputs which need to be approved include dyes, pigments, inks, chemicals, auxiliaries, non-GMO enzymes, sizing agents, waxes, oils, etc.
- Safety Data Sheet (SDS) gives primary information about the chemical input, which is used for assessment.
- Detailed requirements about the Manufacturing Restricted Substance List (MRSL) are covered in the technical criteria.
- Chemical Inputs may be tested for certain parameters based on the Certification Body's risk assessment to rule out unavoidable contamination during its formulation.
- Besides, toxicological and environmental parameters, such as CMR substances, biodegradability, etc. is studied.
- Toxicity to human health as well as environment is included in the GOTS Approval process for chemical inputs.
- Fresh testing on animals is prohibited by GOTS. Toxicity shall be determined through alternate means or the use of alternate test methods.
- Inputs from natural origins also undergo the same scrutiny and approval process as manufactured chemicals.
- Chemical formulators shall implement product stewardship practices. Besides, they shall apply systems for product testing and quality assurance.
- All sites of formulators of GOTS Approved Inputs shall undergo an onsite audit to verify environmental criteria, wastewater treatment and occupational health & safety (OHS) by 1st July 2022.

For more details and the MRSL, please refer to Section 2.3 of GOTS Version 6.0 and the Implementation Manual 6.0.



→ Stage 2: Processed Main Textile Material

Main textile material comprises at least 70% certified organic fibres and up to 30% additional fibres, which are also subject to strict criteria. Only GOTS Approved inputs shall be used to process GOTS Goods. For example, if disperse dyes are used to dye the recycled polyester fibre component of GOTS Goods in a GOTS certified facility, they shall be GOTS approved, too.

- GOTS certified textile processing units have access to 'GOTS Approved Additives', a list of more than 23,000 trade names of GOTS approved inputs and their respective suppliers.
- As a further quality assurance step, GOTS Goods are subject to testing for hazardous substances.
- Certified Entities and GOTS Approved Certifiers undertake testing of end products as per Risk Assessment.
- Restricted Substance List (RSL) is given in Section 2.4.15 of GOTS Version 6.0.

→ Stage 3: Accessories and Additional Fibres

To protect consumers, Certified Entities and GOTS Approved Certifiers shall ensure that the accessories and additional fibres used in GOTS Goods shall be free from hazardous substances. RSL for additional fibre materials and accessories is given in Section 2.4.16 of GOTS Version 6.0. To avoid inconvenience to Certified Entities, accessories and additional fibres certified to Standard 100 by Oeko-Tex are currently acceptable.

Besides the use of GOTS approved inputs, there are numerous norms for GOTS certified textile processing facilities. These include:

Environment and Workers' Safety at Textile Processing Facilities

- The wet processing facilities shall have a functional Effluent Treatment Plant (ETP).
- Treated wastewater is tested for COD, BOD, pH, AOX, heavy metals, etc. prior to discharge.
- The ETP shall be functional throughout the year irrespective of the fibre composition of the orders at hand.
- Data shall be collected and reported for GOTS annual inspections.
- Criteria for textile processing facilities include Occupational Health and Safety (OHS) for workers.
- Workers shall be trained for safe handling and storage of chemicals.
- Safe working conditions include building & fire safety as well as fire safety drills.
- Certified Entities are required to collect information on sources of greenhouse gas emissions (GHG) within their own operations and identify means for reduction for each source.

This section lists the major chemical groups covered in GOTS criteria. The list is not exhaustive. For all categories and individual chemical names and / or CAS numbers, please refer to the latest versions of the Standard and Implementation Manual.

Chemical Groups Covered

Alkylphenols and Alkylphenol ethoxylates	Halogenated Solvents
Allergenic or Carcinogenic Disperse Dyes	Heavy metals
AOX	Medium-chain chlorinated paraffins (MCCP)
Aromatic Solvents	Nanoparticles
Arylamine compounds (MAK III, category 1,2,3,4)	Nickel release
Arylamines with carcinogenic properties	O-Phenyl phenol (OPP)
Chlorinated benzenes & toluenes	Organotin compounds
Chlorophenols (including their salts and esters)	Per-fluorinated compounds
Complexing agents and surfactants	Pesticides
Endocrine disruptors	Phthalates
Flame retardants	Plasticizers
Formaldehyde & short-chain aldehydes	Polycyclic Aromatic Hydrocarbons (PAH)
Genetically modified organisms (GMO)	Poly-fluorinated compounds
Glycol Derivatives	Quaternary ammonium compounds
Glyoxal	Short-chain aldehydes
Halogen containing compounds	Short-chain chlorinated paraffins (SCCP)

GOTS covers the requirements for chemical safety put forward by major public / private initiatives.

This includes but is not limited to

- CPSIA, USA
- Prop 65, California, USA
- EN 71-3, EU
- REACH, EU
- ZDHC Level 1
- Hazardous Chemical Groups highlighted by Greenpeace International

GOTS applies a strong system to tackle the issue of controlling and limiting the use of hazardous chemicals. The criteria in place provide not only robust solutions for chemical safety in the wet processing of textiles but also serve as a risk management tool for the product and the business alike.