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 recognised in all markets around the globe and the numbers are growing; in 2022 more than 13.549 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.

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: Chemical Input Approval Prior to Use
Stage 2: Processed Main Textile Materials
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 must 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 (carcinogenic, mutagenic and reprotoxic) 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. Therefore, toxicity must be determined through alternate means or the use of alternate test methods, instead.
- Inputs from natural origins also undergo the same scrutiny and approval process as manufactured chemicals.
- Chemical formulators are required to implement product stewardship practices. Besides, they are obliged apply systems for product testing and quality assurance.
- Chemcial formulators of GOTS Approved Inputs must undergo an onsite audit to verify environmental criteria, wastewater treatment and occupational health & safety (OHS).

For more details, please refer to Section 4.2 Chemical Input Criteria in GOTS Version 7.0 and the Implementation Manual 7.0.

→ 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 must be used to process GOTS Goods.

- GOTS certified textile processing units have access to 'GOTS Positive List', a list of more than 39.990 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 5.2.7 of GOTS Version 7.0.

→ Stage 3: Accessories and Additional Fibres

To protect consumers, Certified Entities and GOTS Approved Certifiers have to ensure that the accessories and additional fibres used in GOTS Goods must be free from hazardous substances. RSL for additional fibre materials and accessories is given in Section 5.2.8 of GOTS Version 7.0. 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 are required to have a functional Effluent Treatment Plant (ETP).
- Treated wastewater is tested for COD, BOD, pH, AOX, heavy metals, etc. prior to discharge.
- The ETP has to be functional throughout the year irrespective of the fibre composition of the orders at hand.
- Data must be collected and reported for GOTS annual inspections.
- Criteria for textile processing facilities include Occupational Health and Safety (OHS) for workers.
- Workers must 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 obliged to define Greenhouse Gas (GHG) Emission Management that encompasses the identification of sources of GHG emissions. They must also monitor, quantify, and set measures to reduce GHG emissions.

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	Short-chain chlorfinated paraffins (SCCP)
	Nanoparticles
	Nickel release
Arylamines with carcinogenic properties	O-Phenyl phenol (OPP)
Chlorinated benzenes & toluenes	Organotin compounds
Chlorophenols (including their salts and esters)	Per- and polyfluoroalkyl Sustances (PFAS)
Complexing agents and surfactants	Pesticides
Endocrine disruptors	Phthalates
Flame retardants	Plasticizers
Formaldehyde & short-chain aldehydes	Polycyclic Aromatic Hydrocarbons (PAH)
Genetically modified organisms (GMO)	
Glycol Derivatives	Quaternary ammonium compounds
Glyoxal	
Halogen containing compounds	

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
- 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 processing of textiles but also serve as a risk management tool for the product and the business alike.