

**International Working Group on Global Organic Textile Standard
- Technical Committee -**

Manual for the implementation of the Global Organic Textile Standard

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Table of contents

Principles	3
Official interpretations for specific criteria of the GOTS, Version 2.0	4
1.2: Scope and structure	4
1.4. Label grading	4
2.1. Requirements for organic fibre production.....	4
2.2.1 <i>Products sold, labelled or represented as "organic" or "organic – in conversion"</i>	5
2.2.2 <i>Products sold, labelled or represented as "made with x % organic materials" or "made with x % organic – in conversion materials"</i>	5
2.3 General Requirements for Chemicals	5
2.3.1 <i>Prohibited substances and restricted inputs in all production stages</i>	5
2.3.2 <i>Risk phrases and toxicity requirements in all processing stages</i>	6
2.3.2 <i>Risk phrases and toxicity requirements in all processing stages</i>	7
2.4.11. <i>Waste Water Treatment</i>	9
2.4.13. <i>Record keeping & internal quality assurance</i>	9
2.4.15 <i>Orientation values for residues in organic textiles</i>	10
2.4.16 <i>Orientation values for residues in additional materials and accessories</i>	10
4.2 <i>Residue Testing</i>	11
Annex	11
A) Definitions	11

Principles

This document provides interpretations and clarifications for specific criteria of the Global Organic Textile Standard (GOTS) and related publications (e.g. the Labelling Guide) approved by the Technical Committee (TC) of the International Working Group (IWG) where the current wording of the specific criteria could lead to (or already led to) inconsistent, inappropriate or even incorrect interpretation. It may further contain requirements for the application of the GOTS and the implementation of the related quality assurance system for certifiers.

This manual is to be seen as a flexible quality assurance tool of the TC to give advice and clarification to the GOTS approved certifiers and users of the GOTS where felt necessary as it can be up-dated short-term, however it does not deal with revision questions of the current standard version or even set any revised criteria.

The first issue of the manual focuses on interpretations with regard to specific criteria of the GOTS where clarification was requested by certifiers, labs, chemical suppliers and manufacturers.

The interpretations, corrections and further clarifications as provided with this document are binding for all approved GOTS certifiers and users of the GOTS. Any products already assessed and certified on basis of other interpretations which were also plausible with regard to the current wording of the GOTS remain their assessed / certified status. Any new assessments and certifications must be based on the official interpretations, corrections and clarifications as provided for in this document as soon as possible but no later than 6 months after their release unless no other / specific advice is given.

Preliminary remarks:

In the following the (relevant section of a) chapter of the GOTS is quoted where the interpretations, corrections and further clarifications refer to.

In case not the whole wording of one chapter is quoted, the symbol '...' is used.

Official interpretations for specific criteria of the GOTS, Version 2.0

1.2: Scope and structure

... "The final products may include, but are not limited to fibre products, yarns, fabrics and clothes." ...

Interpretation:

In principle any product that can be considered as a textile product is covered under the scope of this standard.

A product can only be certified and labelled ('organic' or 'made with organic') as a whole. It is not possible to certify and label only a part or component of a product.

Any non textile additional material / accessory used that is not listed in chapter 2.4.9 'Requirements for accessories' must be made of natural raw materials and must meet the orientation values for residues as of chapter 2.4.16.

1.4. Label grading

...

"Final products, that are produced and manufactured in compliance with these standards by an operation that has been certified by an approved certifying body may be sold, labelled or represented as:

a) "organic" or "organic - in conversion"

or

b) "made with x % organic materials" or " made with x % organic - in conversion materials" with regard to these standards."

...

Interpretation:

Any product that is sold, labelled or represented either by a manufacturer or trader in the supply chain (including intermediates such as yarns and fabrics) or by a retailer to the final consumer is considered as 'final product' in this context.

2.1. Requirements for organic fibre production

"Approved are natural fibres that are certified organic and fibres from conversion period certified according to recognised international or national standards and certified by any IFOAM accredited or internationally recognised (according to ISO 65) certifier."

...

Interpretation:

USDA NOP, EEC 2092/91 and national standards from countries recognised on the list of third countries according to regulation EC 345/2008 (only if compliance with all relating specifications as of EC 345/2008 is assured) are considered as 'recognised international or national standards' in this context.

Further clarifications:

Organic fibre certification according to JAS is not possible. (-> per definition of JAS)

Certification of 'in conversion' (resp. 'in transition') status is not possible according to USDA NOP. (-> per definition of NOP)

For products labelled 'organic' or 'made with organic' according to GOTS in the USA it needs to be assured that the organic fibre production and certification is based on USDA NOP. (-> per definition of NOP)

2.2.1 Products sold, labelled or represented as "organic" or "organic – in conversion"

"95% or more of the fibre content of the products - excluding non-textile accessories - must be of certified organic origin or from 'in conversion' period (identified and labelled as specified in chapters 1.4 and 2.1 of these standards)." ...

and

2.2.2 Products sold, labelled or represented as "made with x % organic materials" or "made with x % organic – in conversion materials"

"No less than 70% of the fibre content of the product - excluding accessories - must be of certified organic origin or from 'in conversion' period (identified and labelled as specified in the chapters 1.4 and 2.1 of these standards)." ...

Interpretation:

All percentage figures of the fibre content of the products mentioned in both chapters refer to the weight of the products in conditioned status.

2.3 General Requirements for Chemicals**2.3.1 Prohibited substances and restricted inputs in all production stages**

Substance group	Criteria
Permanent AOX in primary effluent	Restricted: AOX may not constitute more than 1% per weight of any input

...

and

Annex A) Definition: "AOX is permanent, if the molecular structure of the input contributes halogenated organic compounds to wastewater generated during fibre processing." ...

Interpretation:

The applicable test method for contribution of halogenated organic compounds to wastewater in this context is the norm DIN EN ISO 9562.

2.3.1 Prohibited substances and restricted inputs in all production stages

Substance group	Criteria
...	...
Aromatic solvents	Prohibited
(Chloro-) Phenols (as TCP, PCP)	Prohibited
Complexing agents and active detergents	Prohibited are: - APEO; - EDTA, DTPA and similar persistent complexing agents; - LAS, α -MES
Formaldehyde and other short-chain aldehydes	Prohibited
Genetically modified organisms (GMO's) and their derivates (including enzymes derived from genetically modified micro-organisms)	Prohibited
Fungicides and Biocides	Prohibited
Halogenated solvents	Prohibited
...	
Fluorocarbons	Prohibited
Quaternary ammonium compounds	Prohibited, except for auxiliaries used for fixing purposes in the dyeing process, provided they meet all other GOTS criteria. This exception will be reviewed in two years from date of adoption.
Other explicit prohibited substances	Any substances, that are prohibited with a recognised internationally or a nationally valid legal character.

and

2.3.2 Risk phrases and toxicity requirements in all processing stages

Parameter	Criteria
...	
Bio-accumulative	Substances, known to be bio-accumulative and not biodegradable (70% 28d OECD 302A) are prohibited (=> TEGEWA classification III = high waste water impact).

Interpretation:

The substances listed above are prohibited regardless if applied as pure substance or as part of a preparation.

In particular preparations are prohibited if one or more of the substances of this section are present above the concentration limit, above which the substance(s) need(s) to be declared in the MSDS prepared according to one of the equivalent norms / directives as listed in the subsequent chapter. In a given case of doubt about the applicable concentration limit, the respective GHS (Global Harmonised System) criterion is to be taken as decisive requirement.

Preparations containing substances of this section, for which the applicable norms / directives do not provide for a duty of declaration are prohibited if they contain these substances above a concentration limit of 0,1%. These substances include especially those quaternary ammonium compounds that are not classified as dangerous substances and intended to be used for other purpose than for fixing in the dyeing process as well as GMO's, their derivates and enzymes derived from GMO's.

2.3.2 Risk phrases and toxicity requirements in all processing stages

All substances or preparations will be assessed on the basis of the MSDS.

...

Interpretation:

The material safety data sheet (MSDS) of a chemical input (substance or preparation) has to be prepared according to one of the following norms / directives to be taken as accepted basic tool for evaluation:

- ANSI Z400.1-2004
- ISO 11014-1
- 1907/2006EEC (Reach)
- 2001/58/EEC
- GHS (Global Harmonised System)

Substance group	Criteria
Other toxic substances	<p>No use is allowed for chemical substances and preparations that are assigned or may be assigned at the time of application any of the following risk phrases or combinations thereof:</p> <p>R26: Very toxic by inhalation. R27: Very toxic in contact with skin. R28: Very toxic if swallowed. R39: Danger of very serious irreversible effects. R40: Limited evidence of a carcinogenic effect. R45: May cause cancer. R46: May cause heritable genetic damage. R48: Danger of serious damage to health by prolonged exposure. R49: May cause cancer by inhalation. R60: May impair fertility. R61: May cause harm to the unborn child. R62: Possible risk of impaired fertility. R63: Possible risk of harm to the unborn child. R68: Possible risk of irreversible effects.</p> <p>No use is allowed for chemical substances and preparations that are assigned or may be assigned at the time of application any of the following risk phrases or combinations thereof, in accordance with the criteria of classification given in EC Directive CE 67/548, 18th Adaptation:</p> <p>R50: Very toxic to aquatic organisms. R51: Toxic to aquatic organisms. R52: Harmful to aquatic organisms. R53: May cause long-term adverse effects in the aquatic environment. R58: May cause long-term adverse effects in the environment. R59: Dangerous for the ozone layer.</p>

Substance group	Criteria
	The introduction of R51, R52 and R53 may have the consequence of a remarkable reduction in dyeing chemicals and auxiliaries. Considering the expected loss in dyeing quality and diversity the mentioned R-sentences will be optional until next revision of this standard. In certification process these parameters have to be controlled, documented and reported.

Interpretation:

A substance is prohibited if any of the risk phrases or combinations thereof as listed in this section (except R51-R53) is assigned or may be assigned at the time of application to it.

A preparation is prohibited if any of the risk phrases or combinations thereof as listed in this section (except R51-R53) is assigned or may be assigned at the time of application to it or to at least one of the contained substances in case it is present above the concentration limit, above which the substance(s) need(s) to be declared in the MSDS (prepared according to one of the equivalent norms / directives as listed in this chapter). In a given case of doubt about the applicable concentration limit, the 2001/58/EEC criterion is to be taken as decisive requirement - alternatively if no EU MSDS is available the equivalent GHS classifications will be considered.

In contrast to that a substance or preparation is currently not prohibited if the risk phrases R51, R52, R53 or combinations thereof are assigned or may be assigned at the time of application to it, provided that the substance or preparation meets all other criteria of the standard. This might especially be applicable to preparations that meet the relation criterion of biodegradability / eliminability to aquatic toxicity because of its sufficient eliminability (accompanied by insufficient biodegradability), as eliminability is not considered in assigning risk phrases 51-53. However certifiers need to mark all permitted substances and preparations carrying risk phrases 51-53 in their respective approved lists for chemical inputs.

Parameter	Criteria
Oral Toxicity (minimum requirement)	LD ₅₀ > 2000 mg/kg
Aquatic Toxicity (minimum requirement)	LC ₅₀ , EC ₅₀ , IC ₅₀ > 1 mg/l
Relation of biodegradability / eliminability ²⁾ to aquatic toxicity	Only allowed, if: < 70% and > 100 mg/l > 70% and 10–100 mg/l > 95% and 1–10 mg/l
...	

...

Footnote 2) Testing methods: OECD 301 A-E, ISO 7827, OECD 302 A, ISO 9887, OECD 302 B, ISO 9888 or OECD 303A; testing duration in each case: 28 days

...

Interpretation:

The preparation as a whole is to be assessed against the parameters and criteria mentioned above.

Correction:

The correct meaning of the relation criteria is as following:

Relation of biodegradability / eliminability ²⁾ to aquatic toxicity	Only allowed, if: < 70% and > 100 mg/l ≥ 70% and > 10 mg/l ≥ 95% and > 1 mg/l
--	--

With regard to the biodegradability / eliminability (to aquatic toxicity) criterion ≥ 70% (and > 10 mg/l) precisely the following test methods are rated as equivalent:

OECD 301 A, OECD 301 E, ISO 7827, OECD 302 A, ISO 9887, OECD 302 B and ISO 9888, whereas a preparation tested with one of the methods OECD 303A or ISO 11733 has to show a percentage degradation of at least 80% in order to meet this criterion.

In addition a preparation meets the biodegradability / eliminability (to aquatic toxicity) criterion ≥ 70% (and > 10 mg/l) if the test with one of the methods OECD 301 B, ISO 9439, OECD 301 C, OECD 302 C, OECD 301 D, ISO 10707, OECD 301 F, ISO 9408, ISO 10708 and ISO 14593 shows a percentage degradation of at least 60%.

Test duration for all methods mentioned is 28 days.

A preparation meets the biodegradability / eliminability (to aquatic toxicity) criterion ≥ 95% (and > 1 mg/l) if the test with one of the methods mentioned above shows a percentage degradation of at least 95% within 28 days.

2.4.11. Waste Water Treatment

"Wastewater from all wet processing sites must be treated in an internal or external functional wastewater treatment plant before discharged to surface waters." ...

Interpretation:

The question whether a treatment plant is functional or not mainly depends on the inputs used in wet processing. For a unit only performing dyeing with natural dyes and auxiliaries, a simple biological treatment system may be appropriate whereas for an industrial unit working with chemical dyes and auxiliaries at least a 2-stage treatment plant is requested. Units using auxiliaries that are approved because of its adequate eliminability (e.g. acc. to OECD 302B) must in addition have a functioning treatment of the sludge.

2.4.13. Record keeping & internal quality assurance

... "A valid organic certificate (e.g. transaction certificate) from an accredited certification body must be maintained for all purchased organic fibres and yarns." ...

Interpretation:

Transaction Certificates (TCs) for 'organic' or 'organic in conversion' fibres and GOTS certified yarns (or any other (semi-)processed textile products) shall contain the following minimum information:

- Name and address of the Certification Body that issued the certification;
- Name(s) and address(es) of the producer(s) / processor(s) of the certified products;
- Name and address of the consignee of the certified products;
- Name and address of the exporter of the certified products, if applicable;
- Name and address of the importer of the certified products, if applicable

- f. The scope of the certification granted, including
- The products certified, which may be identified by name and type and further be specified by net (and gross) weight, no. of pieces, length and codes or numbers (s.a. lot no., container no., bill of lading), whatever applicable
 - The fibre material composition of the products certified, if applicable
 - The standard that is the basis for the certification (the concrete organic production standard(s) for fibre production (e.g. USDA NOP and/or EEC Organic Regulation 2092/91) as well as the GOTS for processing)
 - The certified status of the fibres ('organic' or 'organic-in conversion') resp. label grading of the (semi-)processed textile products ('organic' resp. 'organic-in conversion' or 'made with (x%) organic materials' resp. 'made with (x%) organic-in conversion materials'), and
 - The effective date of certification.

Transaction Certificates (TCs) for organic (or organic 'in conversion') fibres should reflect the interpretation and clarifications as provided for chapter 2.1 of GOTS in this document. TCs for yarns (or any other (semi-)processed textile products) should be issued by a GOTS approved certifier only. TCs for yarns (or other (semi-)processed textile products) issued according to an organic production standard or processing standards other than GOTS cannot be accepted in the GOTS supply chain.

2.4.15 Orientation values for residues in organic textiles

...

Parameter	Test method	Criteria
...
Glyoxal and other short-chain aldehydes	Extraction, HMBT, Photometry UV/VIS	< 20 mg/kg
...		

and

2.4.16 Orientation values for residues in additional materials and accessories

...

Parameter	Test method	Criteria
...
Glyoxal and other short-chain aldehydes	Extraction, HMBT, Photometry UV/VIS	< 20 mg/kg
...		

Interpretation:

Aldehydes up to carbon no. 6 and both mono- and dialdehydes are considered as 'short chain aldehydes' in this context.

Since the prescribed method (photometry UV/VIS) is not appropriate to experimentally determine a detected aldehyde, a specific method for the short chain aldehydes and glyoxal such as GC/MS and LC/MS should be used.

4.2 Residue Testing

...

Laboratories that are accredited according to regulation EN ISO and that have appropriate experience in textile residue testing are approved to perform residue testing under these standards.

Interpretation:

In particular, laboratories performing residue testing under these standards should be accredited according to EN ISO 17025.

Annex

A) Definitions

Term	Used in chapter	Binding definition for GOTS
...		
'Heavy metal free'	2.3.1	An input is considered as 'heavy metal free' if it complies with the limit values for traces of the following elements as set by ETAD: Antimony: 50ppm, Arsenic: 50ppm, Barium: 100ppm, Cadmium: 20ppm, Cobalt: 500ppm, Copper: 250ppm, Chrome: 100ppm, Iron: 2500ppm, Manganese: 100ppm, Nickel: 200ppm, Mercury: 4ppm, Selenium: 20ppm, Silver: 100ppm, Zinc: 1500ppm, Tin: 250ppm)
...		

Correction:

One metal in the list is missing and should be considered as well: Lead: 100ppm.

For one metal an incorrect ETAD limit is displayed. Correct is: Manganese: 1000ppm.