Internationaler Verband der Naturtextilwirtschaft e.V.

NATURLEDER IVN certified (IVN Leather Standard) Version 4.0



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 International Association of Natural Textile Industry e. V. (IVN)

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 advice:
 This analogous translation of NATURLEDER IVN certified standard is to serve as a support for non-german speaking users.

The binding version is the German original version.

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Foreword

For sustainable apparel and furnishings industries, leather and fur articles are an important part of the product portfolio. Leather is a robust, natural, breathable and skin-friedly material, but produced in conventional industrial manufacturing it still can damage both, health and environment. To define responsible, safe and sustainable products, IVN developed the standard for the natural leather.

This standard was written to make a contribution to a sustainable, enduring and social economy.

As a central concern IVN consistently and comprehensively provides applicable criteria and guidelines for leather and fur products ranking under an ecological status.

The entire product life cycle - from skin production to use and disposal of leather goods - is recorded in detail and verified regarding ecological and social compliance to the IVN NATURLEDER standard.

The IVN standard committee constantly refines NATURLEDER. The group of independent experts in the range of chemical analyses, research, trade and production take over this this task in order to permanently ensure the highest possible sustainability standards for leather and fur products.

1. Principles

1.1. Aim of the standard

The aim of this standard is to define (achieve) requirements that ensure a high ecological, socially acceptable, and technical status of health-compatible leather. The standard formulates requirements along the process chain from the raw material to the sale and use of the finished leather.

The relevant objectives are:

- reasonable minimization of resources
- use of harmless chemicals and treatment of waste water in all phases of production
- safe working conditions
- consumer's health protection in the context of use
- practicability of the criteria into products with good use- and care characteristics

1.2. Scope and structure

The scope of this standard includes the manufacturing of sustainable leathers and skins, their packaging and labeling as well as trade and distribution. Requirements for additional manufacturing stages and finished leather products (e.g. footwear) can be found in the respective specifications connected to this standard (see annex).

Auxiliaries and process chemicals as well as the entire process are evaluated and documented for each processing step. All substances used should be assessed from extraction to disposal. Especially recommendable processes or chemicals are developed or are already marked as such.

Partially certified combination products (definition see appendix) can also be certified.

1.2.1. Commentary on use

In principle, the standard is to be viewed as a binding directive. Recommendations that are part of the standard are marked as such and should be interpreted as "desirable" but nonbinding.

The expression "criteria" defines obligatory minimum requirements for leather or leather production.

The phrase "further recommendation" expresses the ambition towards a more comprehensive process ecology. The requirements listed in this context potentially cannot be verified with the final product and often demand a certification of individual process steps.

1.2.2. Further development

The following focal areas for further substantiated research and development of the standard NATURLEDER IVN certified are seen at present:

- raw materials: use of certified organic hides
- pre-tanning: optimization of existing procedures
- tanning: Improvement of color fixation and color fastness, further reduction of aniline and pphenylalanine in dyes
- dressing: Optimization of utility and ecological properties
- use: longevity and biodegradability

1.3. Certificate of Compliance (scope certificate)

Processors, manufacturers, traders and retailers that have demonstrated their ability to comply with the relevant NA-TURLEDER criteria in the corresponding certification procedure to an Approved Certifier receive a NATURLEDER Certificate of Compliance issued in accordance with the GOTS 'Policy and Template for issuing Certificates of Compliance (Scope Certificates, SCs').

Accordingly they are considered Certified Entities.

Certificates of Compliance list the products/product categories that the Certified Entities can offer in compliance with the standard as well as the processing, manufacturing and trading activities that are qualified under the scope of certification.

Subcontractors and their relevant processing and manufacturing steps will be listed on the Scope Certificate of the Certified Entity assigning the certification.

1.4. Quality seals and labelling

Only leather products (leather or finished products) produced by a Certified Entity in compliance with the NATURLEDER standard and certified by an Aproved Certifier (= NATURLEDER Goods) may be labeled, advertised and distributed as follows:

"NATURLEDER IVN certified"

Labelling must be completed by a reference to the Approved Certifier who has certified the NATURLEDER Goods (e.g. certifier's name and/or logo) and the licence number of the Certified Entity (as provided by the Approved Certifier).

In all cases the NATURLEDER labelling can only be applied to the product/packaging by a Certified Entity and must have been approved by the Certified Entity's Approved Certifier in advance of its application. Where the NATURLEDER logo is used, its application must be in compliance with the 'Licensing and Labelling Guide'.

1.5. Reference documents

Beside this standard the IVN has released the following official reference documents that provide binding provisions and requirements for Approved Certifiers and users of the NATURLEDER standard:

• Manual for the Implementation of the NATURLEDER Standard: Provides interpretation and clarifications for specific criteria of INATURLEDER. Its purpose is to prevent any inconsistent, inappropriate or incorrect interpretation of the standard. It further contains requirements and detailed specifications for the application of IVN BEST and the implementation of the related quality assurance system for certifiers. This document is valid as of its publication.

• Licensing and Labelling Guide: Specifies the licensing conditions for companies participating in the NATURLEDER certification system and defines the corresponding license fees. It further sets the requirements for the use of the registered trademark 'NATURLEDER IVN Certified' (NATURLEDER logo) in order to ensure correct and consistent application on products as well as in advertisements, catalogues or other publications.

• Policy and template for issuing NATURLEDER Certificates of Compliance (Scope Certificates, SCs): Provides detailed instructions with regard to policies, layout, format and text for issuing Certificates of Compliance.

• Policy and template format for the issuing of conformity documents for chemical preparations (Letters of Approval): Provides detailed instructions with regard to policies, layout, format and text for issuing Letters of Approval for preparations (colour and leather auxiliaries), which are approved as inputs for application in the processing of NATURLEDER certified products.

2. Criteria

2.1. Basic requirements to the raw skins:

Criteria

Allowed are skins fulfilling the following criteria:

The place (country) of slaughter must be documented (invoice).

- The animals are primarily kept and slaughtered for meat or milk production. The use of animals kept or slaughtered solely for leather or fur production is not permitted.
- Species protection must be respected. The use of raw hides of wild animal species listed in the IUCN Red List (iucn.org) as endangered is prohibited.

Further recommendations

- The animal's place of origin is documented.
- The transport of the animals to the slaughterhouse does not exceed the distance of 400 km.
- The transport of skins from slaughterhouse to tannery does not exceed a distance of 500 km.
- The use of skins from certified organic husbandry (according to EC Bio-VO Nr. 2092/91) is aspired.
- Any destruction of natural habitats (for example, tropical deforestation or wetland drainage for creation of rangeland) should be rejected. The procurement of raw hides from regions where this risk does not exist is to be preferred.

2.2. Process related criteria

2.2.1. General requirements for chemical inputs in all processing stages

The following table lists chemical inputs that may (potentially) be used in conventional processing of fur and leather products but that are explicitly banned or restricted for environmental and/or toxicological reasons in all processing stages of IVN NATURLEDER hides or fur. It is not to be seen as a comprehensive and inclusive list of all chemical inputs that are prohibited or restricted under IVN NATURLEDER. Prohibition or restriction of substance groups or individual substances that are not explicitly listed in this chapter may further result from chapter 2.2.2 'Requirements related to hazards and toxicity' or from other criteria of this standard.

Substance group	Prohibited substance / restraint
aromatic and/or halogenated solvents	prohibited
aromatic amines according to REACH-V (EG 1907/2006), annex	prohibited
chlorphenoles (including their salts and ester groups)	prohibited (such as TCP, TeCP, PCP)
chromium salts	prohibited
dimethyl fumarate	prohibited
endocrine disruptors	prohibited; (e.g. phthalates, organotin compounds)
formaldehyde	prohibited as auxiliary agent. Processing chemicals with free - or cleavable formaldehyde are allowed, provided that all IVN limits are met.
glyoxal	prohibited

Substance group	Prohibited substance / restraint		
other halogenated organic compounds	 1. Allowed are colorants and pigments, that contribute < 1% permanent AOX to primary effluent. 2. Other substances are not allowed (except preservative agents provided the requirements for the final product are met). 		
preservative agents	The use of preservative agents is undesirable. It should be avoided whenever possible (see chapter 2.3.2; these requirement apply for all processing stages).		
complexing agents and surfactants	 prohibited are: all APs and APEOs (i.e. NP, OP, NPEO, OPEO, APEOs terminated with functional groups, APEO-polymers) EDTA, DTPA, NTA LAS, α-MES 		
per- and polyfluorinated compounds (PFC)	prohibited (such as PFCA (incl. PFOA), PFSA (incl. PFOS) and FTOH)		
PCB, biocides	prohibited		
plasticizers	prohibited are: PHA, phthalates, Bisphenol A and all other plasicizers with endocrine disrupting potential		
PVC	prohibited		
heavy metals	prohibited. Inputs must be heavy metal free (according to ETAD). Preparations may not exceed the defined limits. Exception for dyes and pigments: copper and iron are permitted.		
Organotin compounds (e.g. DBT, MBT, TBT, DOT, TPhT)	prohibited		
Inputs containing functional nano- particles (= particles with a size < 100 nm)	prohibited		
Substances and preparations that <u>are prohibited</u> for application in leather and fur products with a recognised internationally or a nationally valid legal character	prohibited		
Substances and preparations <u>having</u> <u>restrictions</u> in usage for application in leather and fur products with a recognised internationally or nationally legal character	The same restrictions apply, provide the substances and preparations are not already prohibited or have stricter restriction criteria according to this standard. Substances listed in regulation EC 552/2009 (amending regulation EC 1907/2006 (REACH), annex XVII), and the 'candidate list of substances of very high concern for authorisation' of the European Chemicals Agency (ECHA) are prohibited.		
Plasticizers	prohibited are: PHA, phthalates, Bisphenol A and all other plasicizers with endocrine disrupting potential		

2.2.2. Requirements related to hazards and toxicity

Substance group	Prohibited substance / restraint
Inputs that are assigned to specific risk phrases (hazard statements) re-	Inputs that are assigned to specific risk phrases (hazard statements) related to health hazards
lated to health hazards	cancerogenic, mutagenic and teratogenic substances: H340 (cat. M 1B) May cause heritable genetic damage H341 (cat. M 2) May likely cause heritable genetic damage H350 (Cat. K 1A, K 1B) May cause cancer H350i (Cat. K 1A, K 1B) May cause cancer by inhalation
	• preparations which are classified with any of the following hazard statements /risk phrases
	• preparations which contain at least one substance which is classified with any of the following hazard statements (according to Global Harmoni-zation Standards (GHS), published by the United Nations, appendix 3):
	Cancerogenic, mutagenic and teratogenic substances:
	H340 (cat. M 1B) May cause heritable genetic damage
	H341 (cat. M 2) May likely cause heritable genetic damage
	H350 (Cat. K 1A, K 1B) May cause cancer
	H350i (Cat. K 1A, K 1B) May cause cancer by inhalation
	H351 (Cat. K 2) May likely cause cancer
	H360 (Kat. R IA, R IB), May impair fertility; may cause harm to the unborn child
	H360D (Kat. R 1A, R 1B) May cause harm to the unborn child
	H360FD (Kat. R 1A, R 1B) May impair fertility and may cause harm to the unborn
	child
	H360Fd (Kat. R 1A, R 1B) May impair fertility and likely cause harm the unborn child.
	H360Df (Kat. R 1A, R 1B) May cause harm the unborn
	child and likely impair fertility.
	H361 (Kat. R 2) May likely impair fertility; may cause harm to the unborn child.
	H361f (Kat. R 2) May likely impair fertility.
	H361d (Kat. R 2) May likely cause narm the unborn child.
	child
	H362 May cause harm to the unborn child via breast milk.
	Toxic substances:
	H300 Very toxic if swallowed
	H301 Toxic if swallowed
	H304 May be fatal if swallowed and enters airways
	H310 Very toxic in contact with skin H311Tovic in contact with skin/exception: Glutardialdehyde)
	H330 Very toxic by inhalation
	H331 Toxic by inhalation
	H370 Causes damage to organs
	H371 May cause damage to organs
	H372 Causes damage to organs through prolonged or repeated exposure
	H373 May cause damage to organs over a prolonged or long term repeated expo-
	sure
	except preservative agents provided the requirements for the final product are met.
	•preparations included in the "candidate list of substances of very high concern for authorisation" of the European Chemicals Agency (ECHA)

Substance group	Prohibited substance / restraint		
	• are classified as sensitizing according to DFG MAK IV and list BgVV Cat. A and B1). (see TRGS 907 und TRGS 540)		
	 The requirement applies to the final product. The use of dyes containing aniline or. p-phenylendiamine is temporarily permitted during a transitional period, as long as the requirements for the final product are met. For inputs assessed according to the Global Harmonized System (GHS) the equivalent hazard statements apply (annex 3 of GHS). 		
	For inputs assessed according to the 'risk phrase' classification (Directive 67/548EEC, amended and appealed by Regulation EC 1272/2008 annex VI table 3.2) the equivalent risk phrases apply.		
Inputs which are classified with spe-	Prohibited are:		
cific hazard statements / risk phrases	- substances which are classified with any of the following hazard statements / risk		
related to environmental bazards	phrases, if applied as direct input		
	- preparations which are classified with any of the following hazard statements /		
	risk phrases		
	a) in accordance with the codification system of the		
	Global Harmonized System (GHS) as published by the United Nations, an-		
	nex 3:		
	H400: Very toxic to aquatic life		
	H410: Very toxic to aquatic life with long lasting effects		
	H411: Toxic to aquatic life with long lasting effects		
	For inputs assessed on basis of GHS, where the implementation system		
	does not provide for the codified H-statements, the corresponding hazard		
	classes and categories of GHS, annex 3 apply. For inputs assessed accord-		
	ing to the 'risk phrase' classification (Directive 67/548EEC amended and		
	appealed by Regulation EC 1272/2008) the equivalent risk phrases apply.		
	b) in accordance with the codification system of the EU-GHS		
	(Regulation EC 1272/2008):		
	EUH059: Hazardous to the ozone layer		
Inputs which are bio-accumulative	Prohibited are substances, if applied as direct input, and preparations		
and not rapidly degradable	classified with		
	H413: 'May cause long-lasting effects to aquatic life' (respective R53) that		
	are both, 'bio-accumulative'1) and not rapidly degradable ²), ³)		
	1) A substance or preparation is considered as (potentially) bio-accumulative, if BCF (= bio-concentration factor) \geq 500 or, if absent, log Kow (= logarithm of the n-octanol-water partition coefficient) \geq 4 2) Testing requirement: >70% OECD 301A [28d] or equivalent testing method according to footnote 4 of the table below, except test methods related to eliminability (OECD 302). In those cases where only BOD and COD data are available the input is considered 'rapidly degradable' when the ratio of BOD5/COD is \geq 0,5.		
	3) This criterion is not applicable to preparations whose very low solubility in water prevents their bioac- cumulation (e.g. pigment preparations)		

2.2.3. Toxicity / degradabiliy / eliminability of the used inputs

All preparations applied must further comply with the following requirements:

Parameter	Criteria		
oral toxicity ¹⁾	basic chemicals: LD50: not applicable		
(basic requirements) ²⁾	dyeing + tanning: LD50 > 2.000 mg/kg		
	greasing + processing: LD50 > 2.000 mg/kg		
aquatic toxicity ³⁾	basic chemicals: LD50: not applicable		
(basic requirements)	dyeing + tanning: LC50 / EC50 > 100 mg/l		
	if biodegradability > 60% > 10 mg/l		
	greasing + processing: LC50 / EC50 / IC50 > 1 mg/kg		
	for bacteria, fishes, daph- nia, algae		
relation of biodegradability (%) /	basic chemicals: not applicable		
eliminability (mg/l) ⁴⁾ (OECD 301,	dyeing + tanning: not applicable		
302A, 302B/303A)2) to aquatic	greasing + processing: requirement: <70% und > 100 mg/l		
toxicity (LC50 or EC50 or IC50: OECD	>70% und 10-100 mg/l		
201, 202, 203) ³⁾ 202, 203) ³	> 95% und 1-10 mg/l		
bio-accumulative substances ⁵⁾	Substances, known to be bio-accumulative 6) and not biodegradable (70%		
	28d OECD 302A) are prohibited (=> TEGEWA classification III = high waste		
	water impact).		

1) Performing new animal tests to determine unknown LD50 values in the course of the NAURLEDER assessment procedure for inputs (compare chapter 2.2.4) is prohibited. Instead, alternative methods (e.g. Acute Toxicity Estimates (ATE), conclusions on analogy from similar products, validated structure-activity relationships, calculation from available data of substances contained, expert judgment, in vitro tests), must be used to determine unknown values.

2) Substances and preparations, such as alkaline and acids, that fail to meet this requirement because of their pH value only, are exempt from this requirement.

3) Accepted testing methods [duration]: Performing new fish and daphnia tests to determine unknown LC50 / EC50 values in the course of the GOTS assess-ment procedure for inputs is prohibited. Instead alternative methods to OECD 203 [96hr] and EC50 daphnia, OECD 202 [48hr] (e.g. Acute Toxicity Estimates (ATE), validated structure-activity relationships, conclusion on analogy from similar products, calculation from available data of substances contained, fish egg test (embryo toxicity test (FET)), in vitro test) must be used to determine unknown values; IC50 algae, OECD 201 [72hr]

4) Accepted testing methods: OECD 301 A, OECD 301, E, ISO 7827, OECD 302 A, ISO 9887, OECD 302 B, ISO 9888 or OECD 303A; alternatively to meet the 70% level a preparation tested with one of the methods OECD 303A or ISO 11733 a percentage degradation of at least 80% must be shown - or if tested 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 or ISO 14593 a percentage degradation of at least 60% must be shown. To meet the 95% level, if tested with any of the mentioned methods a percentage degradation of 95% must be shown. Testing duration with each method is 28 days.

5) A substance is considered as (potentially) bio-accumulative, if BCF (= bio-concentration factor) > 100 or if log Pow (= logarithm of the n-octanol-water partition coefficient) > 3

6) L. Noll, Gewässerökologisch orientierte Klassifizierung von Textilhilfsmitteln, Melliand 9/1998, 633-635

2.2.4. Assessment basis for chemical inputs

All chemical inputs intended to be used to process NATURLEDER Goods are subject to approval by an IVN Approved Certifier prior to their usage. Preparations must have been evaluated and their trade names will be registered on approved lists prior to their usage by a IVN Approved Certifier who is authorised by the IVN for the specific accreditation scope (approval of leather auxiliary agents (chemical inputs) on positive lists).

Approval must be applied by the applicable chemical producer or supplier of the preparations who receive conformity documents (letters of approval) issued by the authorised certifiers and containing the trade names of applied preparations that have been found to be compliant with the criteria of this standard.

For all chemical inputs (substances and preparations) a Material Safety Data Sheet (MSDS), prepared according to an applicable recognised norm or directive must be available.

The Approved Certifiers are requested, where appropriate and felt necessary, to include further sources of information (such as additional toxicological and environmental data on specific components of the auxiliary agents, test reports, independent lab analysis and traceability checks of ingredients) in the assessment.

2.3. Specific requirements for processing and test parameters

2.3.1. Separation and identification

• All stages through the processing chain must be established so as to ensure that NATURLEDER Goods and conventional goods are not commingled and thatNATURLEDER Goods are not contaminated by contact with prohibited substances.

• All NATURLEDER Goods must be clearly labelled and identified as such at all stages of the processing chain.

2.3.2. Preservation of hides and tanned semi-finished products

Criteria

The following methods of conservation are allowed:

- cooling
- salting, without addition of further preserving agents

Not allowed are:

- all synthetic preservativing agents, especially
- use of PCP, chloro-phenoles und naphtalene
- formaldehyde (FA) und FA-cleaving agents as a preservation agent
- p-chrome-m-cresoles, TCMTB, OIT, o-phenylphenole, methylene-bis-thiocyanate, carbendazimium.

Transitionally the use of preserving agents according to chapter 2.2. "Basic requirements" and chapter 2.3.15 "Requirements for the final product" is permitted.

Further Recommendations

Transport from slaughterhouse to tannery and transport of non-tanned skins or tanned semi-finished products should be kept as short as possible, to minimize the need of preservation.

2.3.3. Soaking

Criteria

- Surfactants and detergents meet the requirements mentioned under 2.2 and are biologically degradable.
- Surfactants must not belong to the group of alkylphenoles
- Additives used for the alkaline hydrolysis meet the requirements mentioned under and 2.2.

Further Recommendations

- Soaking enzymes: no genetically achieved or modified substances are used
- An early fleshing is in order to decrease organic load in waste water

- Preferably readily degradable alkaline is used
- Waste of the soaking process is re-used or recycled

2.3.4. Greyling / splittings

Criteria

All substances used meet the requirements mentioned under 2.2.

Further Recommendations

- greylings are sulphide-free or low-sulphide
- enzymatic greylings do not contain genetically achieved or modified substances

2.3.5. Scaling and bating

Criteria

• All substances used meet the requirements mentioned under 2.2.

Further Recommendations

- scaling with carbon dioxide
- use of light organic acid
- the use of ammonium salts should be minimized

2.3.6. Tanning and after-tanning

Criteria

- All substances used meet the requirements mentioned under 2.2
- The following tanning methods are permitted:
- vegetable and non-mineral tanning methods, provided the requirements for the final product are met.

- Wet white pre-tanning with glutardialdehyde, but no other aldehyde tanning agents; the glutardialdehyde must not enter the tannery's ambient air.

- Traditional and New Sámi tanning if it is proven, that protection of species is guaranteed during blubber (oil) production.

- Forbidden are:
- chromium tanning
- syntane and resin tanning agents with a high formaldehyde content (> 500ppm)
- aluminum-, zirconium- and titanium tanning

Further Recommendations

- Among the plant-based tanning agents those made from fruit are preferred.
- Plant-based tanning agents have been grown in sustainably (e.g. reforestation programme)
- Their production does not threaten any endangered species or put at risk the ecological balance.

2.3.7. Colouring

Criteria

- all substances used meet the requirements mentioned under 2.2
- colorants must meet the following conditions:
- heavy metal free according to ETAD with the exception of Cu and Fe in metal-complex dyes.
- allowed are colorants and pigments that contribute > 1% permanent AOX to primary effluent.

• with regard to aromatic amines, AZO dyes must comply with the valid version of REACH-V (EG 1907/2006), annex 8. Colorants may not contain or otherwise release the following aromatic amines (according to the requirements for the final product):

anilin	CAS-Nr. 62-53-3
5-chlor-o-toluidin	CAS-Nr. 95-79-4
p-phenylendiamin	CAS-Nr. 106-50-3
n.n-dimethylanilin	CAS-Nr. 121-69-7
2,4-Xylidin	CAS-Nr. 95-68-1
2,6-Xylidin	CAS-Nr. 87-62-7

2.3.8. Greasing

Criteria

- All substances used meet the requirements mentioned under 2.2.
- halogenated organic solvents are prohibited
- chloroparaffines are prohibited

Further Recommendations

- Regarding greasing agents it should be aimed for high exhaustion rates.
- The use of greasing agents from renewable resources should be aimed, bearing in mind the protection of species.

2.3.9. Finishing / surface treatment

Criteria

- Permitted are mechanical methods
- Permitted is oiling, waxing and pigment waxing. All substances used meet the requirements mentioned in 1.2
- Pigments meet the requirements for colouring mentioned in 2.3.7.
- Explicitly prohibited is the use of arcrylates, PVC, polyurethane, synthetic rubber, silicone compounds and Nitro-cellu-lose.

Further Recommendations

• refrain from solvent-containing finishings

2.3.10. Environmental management

All companies must assure compliance with the applicable national and local legal environmental requirements applicable to their processing units (including those referring to emissions to air, wastewater discharge as well as disposal of waste and sludge).

They must have a written environmental policy and procedures in place to allow monitoring and improving relevant environmental performances in their facilities. Depending on the processing/manufacturing stages performed, the available data and procedures need to include:

- person responsible;
- the monitoring of waste and discharges;
- data on energy and water resources and their consumption per kg of leather output;
- target goals and procedures to reduce energy and water monitoring of waste and discharges
- procedures to minimize waste and discharges;
- procedures to follow in case of waste and pollution incidents
- documentation of staff training in the conservation of water and energy, the proper and minimal use of chemicals and their correct disposal programme for improvement
- programme for improvement.

Processing units must keep full records of the use of chemicals, energy, water consumption and waste water treatment, including the disposal of sludge.

2.3.11. Wastewater treatment

Wastewater from all processing units must be treated in an internal or external functional wastewater treatment plant before discharged to environment. The applicable national and local legal requirements for waste water treatment (including limit values with regard to pH, temperature, TOC, BOD, COD, colour removal, residues) must be fulfilled.

The following limit values must be kept:

- a COD-value of 200 mg/l or at least 95% reduction compared to the monthly average
- a BOD value of <25 mg/l
- an AOX value of 0.5 mg/l
- an ammonium nitrogen value of 10 mg/l
- a phosphorus value of 2 mg/l for ,
- a value of 2 for the toxicity to fish eggs (GEi)

• a sulfide value of 2 mg/l in the sulfide-containing partial current (wastewater from soaking, greyling, dechalking and rinsing) and

• a chromium value of 1 mg/l total in the chromium-containing partial current (waste water from tanning including wilting and wet finishings).

Wastewater analyses must be performed and documented periodically at normal operating capacity.

Sludge disposal also has to meet the local requirements. In particular, processing stages that are not connected to municipal treatment plants must ensure that there is no contamination of soil, ground- or surface water.

2.3.12. Storage, packaging and transport

NATURLEDER certified products must be stored and transported in such a manner as to prevent contamination by prohibited substances (e.g. biocides) and commingling with conventional products or substitution of the contents.

Conservation: the use of biocides is only allowed according to EU-Regulation 2092 /91.

Transport containers, storage areas or rooms may not be contaminated by biocides

Packaging material must not contain chlorinated plastics (e.g. PVC).

Any paper or cardboard used in packaging material for NATURLEDER goods (including labelling items such as hang tags or swing tags) must be recycled from pre- or post-consumer waste or certified according to a program that verifies compliance with sustainable forestry management principles.

Transport means and routes must be documented (e.g. via routing slip or shipping documents).

In cases where pesticides/biocides must be used in storerooms/transport means, they have to comply with the applicable international or national organic production standard except national laws demand non organic substances.

2.3.13. Record keeping & internal quality assurance

All operational procedures and practices must be supported by effective documented control systems and records that enable to trace:

- The origin, nature and quantities of sustainable products which have been delivered to the unit;
- The nature, quantities and consignees of IVN NATURLEDER Goods which have left the unit;
- Any other information that may be required for the purposes of proper inspection of the operation.

2.3.14. Technical requirements (minimum values)

Any final product labelled according to this standard should comply with the following technical quality parameters. Information about any (potential) non-compliance(s) must be indicated by the licensee of the final product in the product declaration.

Parameter		
rubbing fastness dry (number of turns)	≥ 3 (20) (information on any non-compliance(s) must be indicated on the product)	DIN EN ISO 11640 / DIN EN 17700 method A
rubbing fastness wet (number of turns)	≥ 3 (10) (information on any non-compliance(s) must be indicated on the product)	DIN EN ISO 11641 / DIN EN 17700 method C.2 + C.3
light fastness	2-3 (information on any non-compliance(s) must be indicated on the product)	method DIN 105 B02, Verfahren 3
vapour permeability	≥ 5 mg/cm²/h	DIN EN ISO 14268, DIN EN ISO 20344

2.3.15. Limit values for residues in NATURLEDER Goods (leather and fur; maximum values)

Even if produced in compliance with this standard textiles may carry traces of residues (e.g. due to unavoidable contamination). The following table lists the corresponding limit values for NATURLEDER Goods:

	CAS-Nr.	Criteria	Testing method
Aldehydes			
Formaldehyde	50-00-0	≤ 10 mg/kg	
Glutardialdehyde	111-30-8	≤ 80 mg/kg	
Other Aldehydes Ethanal (acetaldehyde) Propanal Butanal Pentanal Hexanal	75-07-0 123-38-6 123-72-8 110-62-3 66-25-1	each ≤ 20 mg/kg	DIN EN ISO 17226-1:2008

	CAS-Nr.	Criteria	Testing method
Alkylphenoles / Alkylphenolethoxilates Nonylphenole Oktylphenole Nonylphenolethoxylate Oktylphenolethoxylate	104-40-5 140-66-9 68412-54-4 9002-66-9	Sum parameter: ≤ 50 mg/kg thereof each max. ≤ 10 mg/kg Nonylphenole	DIN EN ISO 18218-1 or EN ISO 18218-2
Cleavable Aromatic Amines from AZO dyes according to REACH (EC 1907/2006), annex 8		each: ≤ 20 mg/kg	i.A. DIN EN ISO17234 -1 §64 LFBG 82.02-3; For indications of p-aminoazobenzene: DIN EN ISO 17234-2

	CAS-Nr.	Criteria	Testing method
Aditionally: 2,4-Xylidin, 2,6-Xylidin p-Phenylendiamin Anilline	95-68-1 87-62-7 106-50-3 62-53-3	Overall limit value: ≤ 50 mg/kg	DIN EN ISO17234 -1 §64 LFBG 82.02-3); indications of p-aminoazobenzene over p- phenylendiamine and aniline; detection aminoazobenzene: DIN EN ISO 17234-2
Free Primary Aromatic Amines			
Anilline	62-53-3	each ≤ 5 mg/kg	EN 71-10
p-Phenylendiamin	106-50-3	each ≤ 5 mg/kg	EN /1-11
AOX (halogenated organic compounds)		≤5 mg/kg*	Soxhleth-extraction using dest. water. Preparation according to DIN EN 1485.
pH-value			
In general		3,5-7	DIN EN ISO 4045
Sámi leather		4-8	
Preservative agents			
group I: 2-Octyl-3-isothiazolinone (OIT) 2-Thiocyanomethylthiobenzothiazole (TCMTB) ortho-Phenylphenole (oPP) p-chlorine-m-cresole (CMK)	26530-20-1 21564-17-0 90-43-7 59-50-7	Overall limit value: ≤ 100 mg/kg	Isothiazolinones/MBT: extraction, determination via HPLC-DAD, i.A. DIN EN ISO 13365/IUC 29:2009
group II: phenole 2-Methylphenole (o-cresole) 4-Methylphenole (p-cresole) 2-Mercaptobenzotiazol (MBT) Triclosan	108-95-2 95-48-7 106-44-5 149-30-4 3380-34-5	total limit: ≤ 25 mg/kg	Phenole/Chlorphenole/Triclosan: extraction using Methanole/Acetone, Derivatisation using Isothiazolinones/MBT: extraction, determination via HPLC-DAD, i.A. DIN EN ISO 13365/IUC 29:2009 Phenole/Chlorphenole/Triclosan: extraction using Methanole/Acetone, Derivatisation using Pentafluorobenzoylchloride.
group III: 4-Chlorphenole 2,4-Dichlorphenole Methylen-bis-thiocyanat (MBTC) Carbendazim Tribromphenole	106-48-9 120-83-2 6317-18-6 10605-21-7 118-79-6	total limit: ≤ 5 mg/kg	Determination via GC-ECD or GC-MS
group IV: Pentachlorphenole 2,3,4,5-Tetrachlorphenole 2,3,4,6-Tetrachlorphenole 2,3,5,6-Tetrachlorphenole 2,4,5-Tribromphenole 2,4,6-Tribromphenole	87-86-5 4901-51-3 58-90-2 935-95-5 95-95-4 88-06-2	each ≤ 0,5 mg/kg	Isothiazolinones/MBT: extraction, determination via HPLC-DAD, i.A. DIN EN ISO 13365/IUC 29:2009 Phenole/Chlorphenole/Triclosan: extraction using Methanole/Acetone, Derivatisation using Pentafluorobenzoylchloride. Determination via GC-ECD or GC-MS

Further biocides / can preservatives			
Further biocides / can preservatives Chlorthalonil DDT DDD DDE Dichlofluanid Dieldrin Endosulfan Heptachlor Heptachlorepoxid Lindan Malathion Methoxychlor Parathion(ethyl) Polychlorinated biphenyls (PCB) Permethrin Cypermethrin Pyrethrum Tolylfluanid 5-Chloro-2-methylisothiazolinone (CIT) N-Methylisothiazolinone (MIT) 1,2-Benzoisothiazolinone (BIT) Propiconazole other pesticides for furs:	1897-45-6 50-29-3, 789-02-6 72-55-9, 72-54-8 3424-82-6, 72-55-9 1085-98-9 60-57-1 115-29-7, 33213-65-9 76-44-8 1024-57-3 58-89-9 121-75-7 72-43-5 56-38-2 Diverse 52645-53-1 52315-07-08 8003-34-7 731-27-1 26172-55-4 2682-20-4 2634-33-5 60207-90-1	total limit: ≤ 1 mg/kg	according to DFG S19, GC-ECD, GC-MS and LC- DAD
animal fibers			
agents			
Aluminium(Al)		≤ 500,0 mg/kg **	
Antimony (Sb)		≤1,0 mg/kg	
Arsenic (As)		≤1,0 mg/kg	
Lead (Pb)		≤ 1,0 mg/kg	
Cadmium (Cd)		≤ 0,2 mg/kg	
Chromium total (Cr)		≤ 40,0 mg/kg	Disintegration by micro-waves;
Cobalt (Co)		≤ 5,0 mg/kg **	Quantative determination using ICP-MS following to DIN 38406-E29
Nickel (Ni)		≤ 5,0 mg/kg **	
Mercury (Hg)		≤ 0,02 mg/kg	
Titanium (Ti)		≤ 500,0 mg/kg* ⁽¹⁾	
Zirkonium (Zr)		≤ 10,0 mg/kg	
Chromium VI (Cr-VI)		≤ 3,0 mg/kg	
Organo-tin compounds			
Tributyltin (TBT) Dibutyltin (DBT) Monobutyltin (MBT) Tetrabutyltrin (TeBT) Tricyclohexyltin (TCyHT) Triphenyltin (TPhT) Monooctyltin (MOT) Dioctyltin (DOT)	36643-28-4 14488-53-0 78763-54-9 1461-25-2 6056-50-4 892-20-6 / 668-34-8 15231-57-9 15231-44-4 / 250252- 87-0	each ≤ 0,5 mg/kg	DIN CEN ISO/TS 16179 extraction with methanol / ethanol

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Phosphorous organic compounds			
Diphenylkresylphosphate (DPK) Triisobutylphosphate (TiBP) Tributylphosphate (TBP) Triphenylphosphate (TPP) Tricresylphosphate (TPP) Tris(2-ethylhexyl)phosphate (TEHP) Tris(2-butoxyethyl)phosphate (TBEP) Tris(2-chlorethyl)phosphate (TCEP) Tris(2-chloroisopropyl)phosphate (TCPP) Tris(1,3-dichloroisopropyl)phosphate(TDCPF Trixylylphosphat (TXP)	26444-49-5 126-71-6 126-73-8 115-86-6 1330-78-5 78-42-2 78-51-3 115-96-8 13674-84-5 25155-23-1	Overall limit value: ≤ 5,0 mg/kg	Extraction, determination using GC-MS
Perfluorinated and polyfluorinated	compounds (PFC)		
Perfluorooctane sulfonic acid (PFOS) Perfluorooctanoic (PFOA) Other perfluorinated and	45298-90-6 (anion) 1763-23-1 (acid), 335-67-1	each ≤ 0,025 mg/kg, ≤ 1,0 μg/m2	Extraction, LC-MS/MS
polyfluorinated carboxylic acids and other perfluorinated and polyfluorinated sulfonic acids		each ≤ 0,05 mg/kg	
Perfluoroalkyl sulfonic amides Perfluoroalkyl sulfonic alcohols Fluorotelomer alcohols Fluorotelomer acrylates		each ≤ 0,5 mg/kg	Extraction with MTBE/acetone, GC-MS with PCI (positive chemical ionization)
UV stabilizers			
UV 350 UV 328 UV 327 UV 320	36437-37-3 25973-55-1 3864-99-1 3846-71-7	≤ 1000 mg/kg	Extraction, LC-MS
chlorinated paraffins			
chlorinated paraffins (C10-C13) chlorinated paraffins (C14-C17)	85535-84-8 85535-85-9	≤ 100 mg/kg ≤ 500 mg/kg	Extraction, identification using GC-ECD, safeguarding via DIN EN ISO 18219
dimethyl fumarate	624-49-7	≤ 0,1 mg/kg	CEN ISO/TS 16186; DIN SPEC 53280: Extraction, identification using GC-MS resp. LC-MS
PACs (Polycyclic aromatic carbons)			
18 PACs acc. EPA and REACH (EG 1907/2006), annex XVII		sum parameter: 5 mg/kg	
Naphthalene Acenaphtene Acenaphthylen Anthracen Benzo(g,h,i)perylene Fluoranthene Flouren Indeno(1,2,3-cd)pyrene Phenanthrene Pyrene	91-20-3 83-32-9 208-96-8 120-12-7 191-24-2 206-44-0 86-73-7 193-39-5 85-01-8 129-00-0	each ≤ 1,0 mg/kg	Soxhleth-extraction using Toluol, GC-MS or AfPS GS 2014:01 PAK

Phthalates			
Diethylphthtalate (DEP)	84-66-2		
Di-n-butylphthalate (DBP)	84-74-2		
Di-n-Hexylphthalt (DHP)	84-75-3		
Di-n-octylphthalate (DNOP)	117-84-0		
Di-n-nonylphthalate (DNP)	84-76-4		
Benzylbutylphthalate (BBP)	85-68-7		extraction using Ioluol, separation
Di(ethylhexyl)phthalate (DEHP)	117-81-7	sum parameter:	identification and quantification u
Bis-2-methoxyethyl)phthalate (DMEP)	117-82-8	≤ 100 mg/kg	MS
Di-isobutylphthalate (DIBP)	84-69-5		
Di-isopentylphthalate (DIPP)	605-50-5/776297-69-		
Di-C6-8-alkylphthalate C7 reich (DIHP)	71888-89-6		
Di-iso-Decylphthalate (DIDP)			
Di-iso-Decylphthalate (DIDP)	28553-12-0		
	26761-40-0		

Solvents, volatile organic compounds			
1-Methyl-2-pyrolidone N,N-Dimethylacetamide N, N-Dimethylformamide (DMF)	372-50-4 127-19-5 68-12-2		
Bis(2methoxyethyl)ether Ethylenglykolmonoethyletheracetate (FGMFA)	111-96-6 111-15-9		
Ethylenglykolmonomethyletheracetate (EGMMA)	110-49-6	each ≤ 10 mg/kg	Extraction using methanol, GC-MS
Ethylenglykolmonoethylether (EGME) Ethylenglykolmonomethylether (EGMM) Ethylonglykoldimothylother (EGDM)	110-80-5 109-86-4 110-71-4		
Diethylenglykoldimethylether (DEGDM) Triethylenglykoldimethylether (T3EGDM)	7992-85-7 112-49-2		
1,2- Dichloethane Trichlorethylene	107-06-2 79-01-6		
Perchlorethylene	127-18-4		

* Exemption: In case of use of permissible Chloro-cresoles as preservative agent, AOX may be detected in the corresponding relation.

n.d. = not detectable

*(1) If it clearly can be proven that exceeded titanium limit values are a result of the dyeing process, the limit value is considered to be met.

** In case of exceeding the limit value an eluate crosscheck is valid.

3. Minimum social criteria

3.1. Scope

The following social criteria apply to all stages of leather production, processing and trade in which which are employing workers. The same principles and requirements apply also to the farm level as soon as regulations on organic livestock farming will take these social criteria into account.

For adequate implementation and assessment of the following specific criteria adherence to the corresponding International Labour Conventions of the International Labour Organisation (ILO) must be assured.

3.2. Employment is freely chosen

There is no forced or bonded labour.

Workers are not required to lodge "deposits" or their identity papers with their employer and are free to leave their employer after reasonable notice.

3.3. Freedom of association and the right to collective bargaining are respected

Workers, without distinction, have the right to join or form trade unions of their own choosing and to bargain collectively. The employer adopts an open attitude towards the activities of trade unions and their organisational activities.

Workers representatives are not discriminated against and have access to carry out their representative functions in the workplace.

Where the right to freedom of association and collective bargaining is restricted under law, the employer facilitates, and does not hinder, the development of parallel means for independent and free association and bargaining.

3.4. Working conditions are safe and hygienic

A safe and hygienic working environment must be provided, bearing in mind the prevailing knowledge of the industry and of any specific hazards. Appropriate personal protective equipment must be provided to the workers and it must be assured that these are being used whenever necessary. Adequate steps must be taken to prevent accidents and injury to health arising from, associated with, or occurring in the course of work, by minimizing, so far as is reasonably practicable, the causes of hazards inherent in the working environment.

For all chemical substances and preparations used the corresponding Material Safety Data Sheet (MSDS) must be maintained and it must be assured that the applicable health and safety measures for handling and storing these chemicals are implemented.

Workers must receive regular and recorded health and safety training, incl. fire prevention training and evacuation drills. Such training must be repeated for new or reassigned workers.

Escape and rescue plans are to be installed visibly for all workers. Further, the installation of fire extinguishers and the identification of escape routes and places is mandatory.

Access to clean toilet facilities and to potable water, and, if appropriate, to rest areas, food consuming areas and sanitary facilities for food storage must be provided. Accommodation, where provided, must be clean, safe, and meet the basic needs of the workers.

Accommodation, where provided, must be clean and safe and must meet the basic needs of the workers.

Break rooms or areas must be provided.

The company observing the code must assign responsibility for health and safety to a senior management representative.

At least one first aider has to be determined, who, in case of accidents or emergencies, is able to provide first aid. A lyingdown facility for medical emergencies must be offered.

3.5. Child labour must not be used

The employment of people under 16 is prohibited. If the employment serves training purposes, does not endanger the health and development of the person or is short-termed (maximum 50 working days per calendar year), exceptions can be made.

Companies must develop (or participate in) and contribute to policies and programmes which provide for the transition of any child found to be performing child labour to enable her or him to attend and remain in quality education until no longer a child.

Children and young persons under 18 must not be employed at night or in hazardous conditions.

As long as children and adolescents still are not full-growing, they must not be exposed to exhausting activities. They must not work more than 8 hours per day or a maximum of 40 hours per week. After more than 4.5 up to 6 working hours, a break of at least 30 minutes is to be granted. After 6 working hours or more, the break should be prolonged to at least 60 minutes.

These policies and procedures including the interpretation of the terms "child" and "child labour" must conform to the provisions of the relevant ILO conventions C138 and C182.

3.6. Living wages

Wages and benefits paid for a standard working week meet, at a minimum, national legal standards or industry benchmark standards, whichever is higher. In any event wages should always be enough to meet basic needs and to provide some discretionary income.

Before they enter employment, all workers must be provided with a labour contract, which at least includes the place of work, working hours and the wage per particular working period (per hour, week or month) and vacation entitlement.

The particulars of their wages for the pay period concerned must be communicated to the workers each time they get paid (rewarding certificate).

Deductions from wages as a disciplinary measure are not permitted nor must any deductions from wages, unless provided for by national law, be permitted without the express permission of the worker concerned. All disciplinary measures must be recorded.

3.7. Working hours are not excessive

Working hours must comply with national laws and/or benchmark industry standards, whichever affords greater protection.

In any event, workers must not be required to work in excess of 48 hours per week on a regular basis, and must be provided with at least one day off for every 7 day period on average. Overtime must be voluntary, must not exceed 12 hours per week, must not be demanded on a regular basis and must always be compensated at a premium rate.

After 6 working hours, the employer must grant a break of minimum 30 minutes to the employee. After 9 working hours, minimum 45 minutes of break are to be granted.

In case of marriage or the death of a husband, spouse or immediate relative and in the case of birth of the own child (for biological fathers only), a paid one-day special leave is to be granted. Special leave days shall be added to national regulations and industrial tariffs.

3.8. No practice of discrimination

There is no kind of discrimination e.g. in hiring, compensation, access to training, promotion, termination or retirement based on race, caste, national origin, religion, age, disability, gender, marital status, sexual orientation, union membership or political affiliation.

3.9. Regular employment is provided

To every extent possible work performed must be on the basis of recognized employment relationship established through national law and practice.

Obligations to employees under labour or social security laws and regulations arising from the regular employment relationship must not be avoided through the use of labour-only contracting, sub- contracting, or home-working arrangements, or through apprenticeship schemes where there is no real intent to impart skills or provide regular employment, nor must any such obligations be avoided through the excessive use of fixed-term contracts of employment.

3.10. Harsh or inhumane treatment is prohibited

Physical abuse or discipline, the threat of physical abuse, sexual or other harassment and verbal abuse or other forms of intimidation must be prohibited.

3.11. Social Compliance Management

Companies must have a policy for social accountability to ensure that the social criteria can be met. They must support the implementation and monitoring of the social criteria by:

- nominating a person responsible for social accountability
- monitoring compliance with the social criteria and implementing
- informing its workers about the content of the minimum social criteria (in their native tongue)
- maintaining and providing appropriate safety equipment and materials to its workers
- allowing workers to nominate a representative for social accountability that is able to provide feedback to the management regarding implementation status of and compliance with social criteria
- recording and investigating complaints from workers or third parties related to the adherence to the social criteria and maintaining records about any necessary corrective measures arising from them
- refraining from disciplinary measures, dismissals or other forms of discrimination against workers for providing information concerning observance of the social criteria

4. Quality assurance system

4.1. Auditing of processing, manufacturing and trading stages

On basis of the standards of International Association of Natural Textile Industry, the verification programme NATUR-LEDER serves as a quality assurance for the production of sustainable leather products

Including an audit (on-site inspection) and also random residue testings of the processed goods along the production chain, it is the aim of the NATURLEDER verification system to guarantee an objective and competent survey of the resource processing on each production or trading stage.

Processors, manufacturers and traders of IVN NATURLEDER goods must participate in the IVN NATURLEDER certification system, based on an annual inspection (including possible unannounced inspections following the risk assessment of the facilities). They must hold a valid certificate of compliance listing the certified products/product categories and the processing, manufacturing and trading activities that are qualified under the scope of certification.

The responsible certifier may decide to perform remote-inspections instead of on-site inspections for traders which do

not have or subcontract any processing or manufacturing activities. On-site inspection must however be performed at least for the first year and every 3rd year of granted certification.

Traders having an annual turnover with NATURLEDER Goods less than 5000 € and retailers only selling to consumers are exempt from the certification obligation; provide they do not (re-)pack or (re-)label NATURLEDER Goods. Traders with less than 5000€ annual turnover must register with an Approved Certifier and must inform the same immediately after their annual turnover exceeds 5000€.

The responsible Approved Certifier may further decide on exceptions from the annual inspection cycle for small-scale subcontractors with a low risk potential regarding environmental and social criteria.

These subcontractors must be clearly identified and are obliged to have a written contract with the certified entity (who is responsible of the conformity with the BEST standard) and can undergo an onsite-inspection if demanded by the authorized certifier.

On-site inspection must however be performed to such units at least for the first year and every 3rd year of granted certification.

The entity under whose name or brand the labelled BEST Goods are sold to the end consumer is responsible for exercising due care in ensuring compliance of the products with this standard, the Licensing and Labelling Guide and further provisions as released by IVN.

4.2. Testing of Technical Quality Parameters and Residues

Certified Entities or their customers are expected to undertake testing in accordance with a risk assessment in order to assure compliance with this standard and in specific with the criteria of chapter 2.4.14 (Technical Quality Parameters) as well as 2.4.15. All IVN NATURLEDER Goods and the components of these products should be included in this risk assessment and therefore potentially subject to testing. The testing frequency and the number of samples should be established according to this risk assessment.

Samples for residue testing may also be taken by the inspector during the required on-site inspection, either as back-up to the inspection process or in case of suspicion of contamination or non-compliance. Additional samples of goods may be taken from the supply chain at any time without advance notice.

Laboratories that are accredited according to ISO/IEC 17025 and that have appropriate experience in leather residue testing respective chemical inputs are approved to perform residue testing under this standard.

5. Annex:

A) Definitions

Term	Definition for the purpose of this standard
Worker	Any individual engaged in work who is not a senior manager or owner
Bio-accumulative	A substance ist considered as (potentially) bio-accumulative, if BCF (= bio-concentration factor) > 100 or if log pow (= logarithm of the noctanol-water partition coefficient) > 3.
Trader	Entity trading with (=buying and selling) NATURLEDER Goods in the supply chain between the producer of the fibre and the retail merchant of the final product regardless whether the goods are physically received or not (e.g. an import, export or wholesale trading entity). Agents that do not become proprietor of the goods and retailers only selling to the end consumer are not
Manufacturer	considered as traders. Entity in the manufacturing chain (sewing industry or so called CMT (cutting, making, trimming) industry up to labelling and final packing) of NATURLEDER Goods.
Endocrine disruptor	Exogenous substance or mixture that alters function(s) of the endocrine system and consequently causes adverse health effects in an intact organism, or its progeny, or (sub) populations.
Subcontractor	Entity in the supply chain of NATURLEDER Goods performing job work (in the field of processing or manufacturing) for a Certified Entity without becoming proprietor of the NATURLEDER Goods and not assigning an own (independent) NATURLEDER certification.
NATURLEDER Goods	Leather goods (finished or intermediate) produced in compliance with NATURLEDER by a Certified Entity and certified by an Approved Certifier.
Permanent AOX	AOX is permanent, if the molecular structure of the input contributes halogenated organic compounds to wastewater generated during fiber processing.
Heavy metal free	An input is considered as 'heavy metal free' if it does not contain heavy metals as a functional constituent and any impurities contained do not exceed the following limit values as set by ETAD: Antimony: 50ppm, Arsenic: 50ppm, Barium: 100ppm, Cadmium: 20ppm, Cobalt: 500ppm, Copper: 250ppm, Chrome: 100ppm, Iron: 2500ppm, Lead: 100ppm, Manganese: 1000ppm, Nickel: 200ppm, Mercury: 4ppm, Selenium: 20ppm, Silver: 100ppm, Zinc: 1500ppm, Tin: 250ppm)
Substances	Chemical elements and their compounds as they occur in the natural state or as produced by industry.
Partly certified combination products	Frequently products are manufactured that cannot be classified as "textiles" as a whole but in parts are cer- tified IVN NATURLEDER. It is the certifier's responsibility to examine the remaining components regarding their compatibility to the IVN product philosophy and to approve a labelling with "partly certified combina- tion product, the (name of component) part is certified IVN NATURLEDER". An example would be a baby buggy which is covered with IVN NATURLEDER certified fabric. In cases of doubt the certifier is welcome to contact IVN head office (info@naturtextil.com).
Processor	Entity in the processing chain (post-harvest handling up to finishing) of NATURLEDER Goods.
Certified entity	Processor, manufacturer, trader or retailer of NATURLEDER Goods certified by an Approved Certifier.
Approved Certifier	Certification body which is approved by the IVN to perform inspections and certifications according to NA- TURLEDER in the relevant scope. An updated list of Approved Certifiers and their scopes is available at: http://www.naturtextil.com/businesses/certification.html
Inputs	General term for all substances and preparations directly applied as textile auxiliary agents, dyes or pig- ments.
Preparations	Mixtures or solutions composed of two or more substances.
Finishing	Dressing in the sense of the standard contains operations carried out on tanned, retanned, natural or dyed, greased and dried leather with the aim to change color, structure or tangibility. Generally leather-foreign substances are applied onto the surface(s) and do not form a chemical compound with the leather but adhere by physical forces. During the finishing process, a variety of differently composed layers of mostly different thickness is applied to the leather surface(s). These layers generally are applied in liquid state and as evenly as possible and form by drying.

B) List of abbreviations

Organisations / Standards:

IVN International Association Natural Textile Industry, Germany

ETAD Ecological and Toxicological Association of Dyes and Organic Pigments Manufacturers

GOTS	Global Organic Textile Standard
OECD	Organisation of Economic Cooperation and Development
TEGEWA	Association of producers of textile, paper, leather and fur auxiliaries and colorants
Others:	
EC50	Effect concentration (50%)
IC50	Inhibition concentration (50% inhibition)
LC50	Lethal concentration (50% mortality)
α-MES	lpha- a-methyl ester sulphonate (C16/18)
AOX	Absorbable halogenated hydrocarbons and substances that can cause their formation
AP	Alkyl phenol
APEO	Alkyl phenol ethoxylate
BOD	Biological Oxygen Demand
COD	Chemical Oxygen Demand
DBT	Dibutyltin
DEHP	Diethylhexyl phthalate
DOT	Dioctyltin
DTPA	Diethylentriaminpentaacetat
EDTA	Ethylendiamintetraacetat
FTOH	Fluorotelomer alcohols
GMO	Genetically modified organisms
HMBT	2-Hydrazono-2,3-dihydro-3-methylbenzothialzole-hydrochloride
MBT	Monobutyltin
LAS	Linear alkyl benzene sulphonate
NP	Nonylphenol
NPEO	Nonylphenol ethoxylates
OP	Octylphenol
OPEO	Octylphenol ethoxylates
РАК	Polycyclic aromatic hydrocarbons
PCB	Polychlorinated biphenyls
РСР	Pentachlorophenol
PFC	Per- and polyfluorinated compounds
PFCA	Perflurooctane carbon acid
PFOA	Perfluorooctanoic acid
PFSA	Perflurooctanoicsulfonic acids
PVC	Polyvinyl chloride
TBT	Tributyltin
ТСР	Trichlorphenol
TeCP	Tetrachlorophenol
TPhT	Triphenyltin