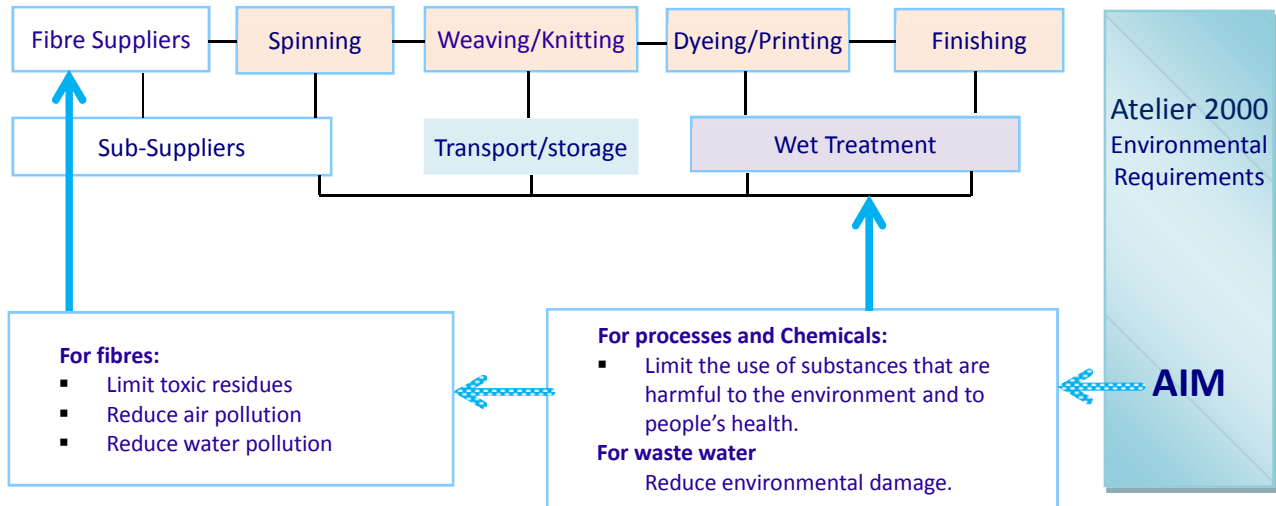




## Atelier 2000: Environmental Requirements

The environmental requirements described below apply to suppliers involved in all stages of production. Our life cycle approach entails that our requirements cover textile fibres, processes and chemicals as well as waste water treatment.

The simple supply chain flow chart below shows the aim of our requirements and the life cycle approach for production



### Requirements:

#### Legal Compliance

The business must meet all relevant international, national and local environmental requirements, and should hold the required operational permits, licences and documents that show compliance regarding:

1. Fresh water supply
2. Waste water discharge
3. Emissions
4. Waste disposal
5. Storage, transport and disposal of hazardous chemicals and non-hazardous waste
6. Banned chemicals

#### Resource Efficiency

The supplier shall strive for a reduction/optimisation of resources to ensure continuous improvement of the environmental performance.

#### Fresh Water

Fresh water shall be used in a responsible way with environmental aspects taken into account. Rain water use should be encouraged and practiced where possible.

#### Waste Water Discharges from Wet Processing

Non-used residual amounts of chemical components shall not be discharged to waste water.

The amount of residual liquors from dyeing, finishing, printing and coating shall be minimised. As a minimum, the supplier shall comply with COD and pH limit values set by the national/local authorities.

Atelier 2000 encourages the supplier to strive for a COD content of less than 20g/kg expressed as an annual average,

and a pH level of between 6-9.

### **Power Generation**

The supplier should strive to use environmentally friendly fuels, and give preference to renewable energy sources.

### **Waste**

Compliance with national/local regulations pertaining to solid waste storage and transport of solid waste shall be ensured.

Re-use and recycling as well as the use of re-useable/returnable containers should be encouraged and practiced where possible and packing material shall be reduced as much as possible.

### **Storage and Transport of Textiles**

Raw materials, Textiles and finished products shall be stored and transported in an appropriate manner to avoid any cross-contamination.

Biocidal and Biostatic products shall not be used during storage and transportation of products.

### **Emissions to Air**

As a minimum, the business must adhere to the national/local laws and regulations regarding emissions to air.

### **Pesticides and Substances Used in Natural Seed Fibre and Wool Fibre Production**

The supplier shall, as a minimum, adhere to the local/national laws and regulations, and provide documentation for doing so.

Atelier 2000's suppliers/sub-suppliers are encouraged to use the list and values below as a guide for pesticide use.

**Natural cellulosic seed fibres** shall not contain more than 0,05 ppm of each of the following substances: Aldrin, captafol, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzene, hexachlorocyclohexane (total isomers), 2,4,5-T, chlordimeform, chlorobenzilate, dinoseb and its salts, monocrotophos, pentachlorophenol, toxaphene, methamidophos, methylparathion, parathion, phosphamidon.

**For wool:** the content of the following substances shall not exceed 2 ppm: diazinon, propetamphos, chlorfenvinphos, dichlofenthion, chlorpyrifos, fenclorophosq, ethion, pirimphos-methyl, diflubenzuron, triflumuron, dicyclanil.

The sum total content of the following substances shall not exceed 0,5 ppm: cypermethrin, deltamethrin, fenvalerate, cyhalothrin, flumethrin.

**For man-made cellulose fibres:** the content of AOX shall not exceed 250 ppm.

### **Auxiliaries, Finishing Agents, Compounds and Formaldehyde**

Seizing preparations, spinning solution additives, spinning additives and preparation agents for primary spinning shall be sufficiently biodegradable according to local/national laws and regulations.

Heavy metal salts and formaldehyde shall not be used for stripping or depigmentation.

Compounds of cerium shall not be used in weighting

### **All Chemicals and Chemical Preparations**

All chemicals and substances listed in the REACH SVHC shall not be used. See below for a link to the list.

### **Detergents, Fabric Softeners and Complexing Agents**

Fabric softeners, complexing agents and detergents shall be sufficiently biodegradable according to local/national laws and regulations. This is usually more than 60%.

Atelier 2000 recommends a biodegradability level of 95%.

**Chlorine agents** shall be excluded for bleaching yarns, fabrics and end products (excluding man-made cellulose fibres).

### **Dyeing**

**Impurities in dyes:** Colouring matter with fibre affinity (soluble or insoluble)

The levels of ionic impurities in the dyes used shall not exceed the following: Ag 100 ppm; As 50 ppm; Ba 100 ppm; Cd 20 ppm; Co 500 ppm; Cr 100 ppm; Cu 250 ppm; Fe 2500 ppm; Hg 4 ppm; Mn 1000 ppm; Ni 200 ppm; Pb 100 ppm; Se

20 ppm; Sb 50 ppm; Sn 250 ppm; Zn 1500 ppm.

Any metal that is included as an integral part of the dye molecule (e.g. metal complex dyes, certain reactive dyes, etc.) shall not be considered when assessing compliance with these values, which only relate to impurities.

**Impurities in pigments:** Insoluble colouring matter without fibre affinity

The levels of ionic impurities for pigments used shall not exceed the following: As 50 ppm; Ba 100 ppm, Cd 50 ppm; Cr 100 ppm; Hg 25 ppm; Pb 100 ppm; Se 100 ppm Sb 250 ppm; Zn 1000 ppm.

## Chrome Mordant Dyeing

Chrome mordant dyeing is not allowed.

## Metal Complex Dyes

If metal complex dyes based on copper, chromium or nickel are used, the following applies:

In case of cellulose dyeing where metal complex dyes are part of the dye recipe, less than 20 % of each of those metal complex dyes applied (input to the process) shall be discharged to waste water treatment (whether on-site or off-site).

In case of all other dyeing processes where metal complex dyes are part of the dye recipe, less than 7 % of each of those metal complex dyes applied (input to the process) shall be discharged to waste water treatment (whether on-site or off-site).

The emissions to water after treatment shall not exceed: Cu 75 mg/kg (fibre, yarn or fabric); Cr 50 mg/kg; Ni 75 mg/kg.

**The following dyes, which are carcinogenic, mutagenic or toxic to reproduction, shall not be used:**

C.I. Basic Red 9, C.I. Disperse Blue 1, C.I. Acid Red 26, C.I. Basic Violet 14, C.I. Disperse Orange 11,	C. I. Direct Black 38, C. I. Direct Blue 6, C. I. Direct Red 28, C. I. Disperse Yellow 3.
--	--

**No use** is allowed of dye substances or of dye preparations containing more than 0,1 % by weight of substances that are assigned or may be assigned at the time of application any of the **Risk phrases (or combinations thereof) listed below:**

**Azo dyes that may cleave to any one of the following aromatic amines shall not be used:**

4-aminodiphenyl   (92-67-1)   Benzidine   (92-87-5)   4-chloro-o-toluidine   (95-69-2)   2-naphtylamine   (91-59-8)   o-amino-azotoluene   (97-56-3)   2-amino-4-nitrotoluene   (99-55-8)   p-chloroaniline   (106-47-8)   2,4-diaminoanisole   (615-05-4)   4,4'-diaminodiphenylmethane   (101-77-9)   3,3'-dichlorobenzidine   (91-94-1)   3,3'-dimethoxybenzidine   (119-90-4)	3,3'-dimethyl-4,4'-diaminodiphenylmethane   (838-88-0)   p-cresidine   (120-71-8)   4,4'-oxydianiline   (101-80-4)   4,4'-thiodianiline   (139-65-1)   o-toluidine   (95-53-4)   2,4-diaminotoluene   (95-80-7)   2,4,5-trimethylaniline   (137-17-7)   4-aminoazobenzene   (60-09-3)   o-anisidine   (90-04-0)   2,4-Xylidine     2,6-Xylidine
---	---

3,3'-dimethylbenzidine   (119-93-7)	
-------------------------------------	--

## Potentially Sensitising Dyes

The following dyes shall not be used:

C.I. Disperse Blue 3   C.I. 61 505	C.I. Disperse Orange 37
C.I. Disperse Blue 7   C.I. 62 500	C.I. Disperse Orange 76 (previously designated Orange 37)
C.I. Disperse Blue 26   C.I. 63 305	C.I. Disperse Red 1   C.I. 11 110
C.I. Disperse Blue 35	C.I. Disperse Red 11   C.I. 62 015
C.I. Disperse Blue 102	C.I. Disperse Red 17   C.I. 11 210
C.I. Disperse Blue 106	C.I. Disperse Yellow 1   C.I. 10 345
C.I. Disperse Blue 124	C.I. Disperse Yellow 9   C.I. 10 375
C.I. Disperse Brown 1	C.I. Disperse Yellow 39
C.I. Disperse Orange 1   C.I. 11 080	C.I. Disperse Yellow 49
C.I. Disperse Orange 3   C.I. 11 005	

## Halogenated Carriers for Polyester

Halogenated carriers shall not be used.

## Printing

Printing pastes used shall not contain more than 5 % volatile organic compounds such as white spirit (VOCs: any organic compound having at 293,15 K a vapour pressure of 0,01 kPa or more, or having a corresponding volatility under the particular conditions of use).

**Plastisol-based printing** is not allowed.

## Formaldehyde

The amount of free and partly hydrolysable formaldehyde in the final fabric shall not exceed 75 ppm.

## Fabric Finishes

No use is allowed of finishing substances or of finishing preparations containing more than 0,1 % by weight of substances that are assigned or may be assigned at the time of application any of the following **R-phrases** (or combinations thereof) **listed below**:

No substances or preparations may be added to the raw materials that are assigned, or may be assigned at the time of application, with and of the following hazard statements (or combinations thereof): H351, H350, H340, H350i, H400, H410, H411, H412, H413, H360F, H360D, H361f, H361d H360FD, H361fd, H360Fd, H360Df, H341.

Atelier 2000's suppliers are encouraged to go beyond national/local laws and regulations, which are the minimum requirement, and use the standards described in the European Ecolabel criteria as a guide to proper and responsible management of the environmental aspects associated with textile products throughout the life cycle of the product.

Atelier 2000 informs their suppliers to regularly consult the EU's Candidate List of Substances of Very High Concern (SVHC), as more and more chemicals are added to the list. For an updated SVHC list, please follow the link below (on 1 August 2013, there are 144 SVHCs).

<http://echa.europa.eu/web/guest/candidate-list-table>

Suppliers are also encouraged to keep and have available documentation such as records, reports and tests that show environmental verification results, data and conformity to laws and regulations.

They are required to keep and update a complete list of all chemicals and substances used with the name of the supplier and associated Material Safety Data Sheets (MSDS) for each chemical.

**Risk Phrases explanation:**

R40 Limited evidence of a carcinogenic effect. R45 May cause cancer. R46 May cause heritable genetic damage. R49 May cause cancer by inhalation. R50 Very toxic to aquatic organisms. R51 Toxic to aquatic organisms. R52 Harmful to aquatic organisms.	R53 May cause long-term adverse effect in the aquatic environment. R60 May impair fertility. R61 May cause harm to unborn child. R62 Possible risk of impaired fertility. R63 Possible risk of harm to the unborn child. R68 Possible risk of irreversible effects.
---	--