Textile Standards and Regulatory Compliance

Updated October 2023

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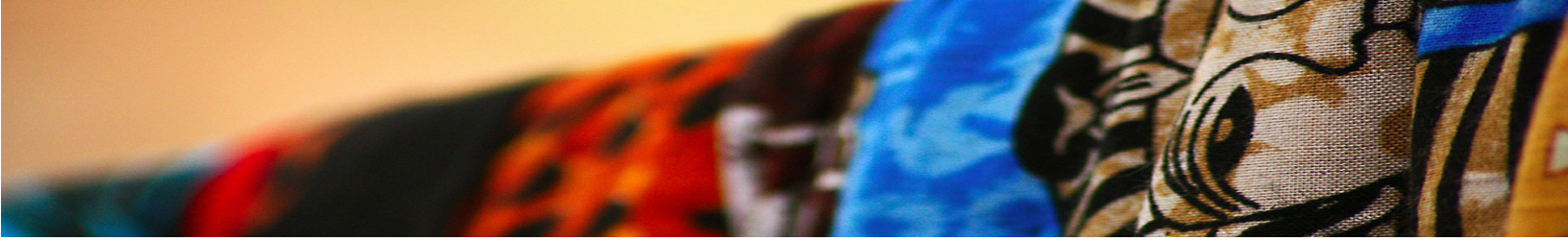
SunChemical®
a member of the DIC group
Color & Comfort

Textile standards are an important indicator to the suitability of an ink for use in textile decoration, whether for fashion, home decor or various sublimation applications. Here, we outline the key points of the most common standards and the compliance of Sun Chemical inks to those standards. In all cases, the ink product Technical Data Sheets (TDS) can be obtained and the compliance to certain textile standards is displayed within these.

- **European Union (EU) REACH.**
  REACH is the Registration, Evaluation, Authorization and Restriction of Chemicals, a European Commission set of regulations to ensure all the chemicals (substances) imported into the EU are safe, tested and suitable for use without any adverse consequences for environment, health or safety. All of our inks are REACH compliant for import into European Union countries which are regulated by REACH. This covers all of our different textile inks – reactive dye, acid dye, disperse and sublimation dye and pigment. We monitor our imports into non-EU manufacturing sites and monitor closely raw materials and sales of finished inks into the European Union (EU) to ensure that all requirements of the REACH regulations are satisfied.

- **National Chemical Inventories**
  Many countries have their own National Chemical Inventories (NCI's) which are essentially lists of substances which are approved for import into that country. Some countries have their own REACH systems, equivalent in a number of ways to EU REACH and some maintain more simple lists of chemicals which are approved for import. Some of our inks are not compliant with the National Chemical Inventories (NCI's) of those international countries who maintain registration lists of substances. This is because the inks may contain ingredients which may not yet be registered for use on these National Chemical Inventories. It is not typically that the ingredients are not permitted for use in those countries. Countries which we have information for compliance to NCI's to include:

  - Turkey (Turkey REACH - KKDIK)
  - USA (Toxic Substances Control Act - TSCA)
  - Canada (Canadian Domestic Substances List – DSL, Canadian Non-Domestic Substances List – NDSL)
  - Australia (Australian Inventory of Chemical Substances – AICS)
  - New Zealand (New Zealand Inventory of Chemicals – NZIoC)
  - Korea (Korean Existing Chemicals List – KECL, Korea REACH – K-REACH)
  - China (Inventory of Existing Chemical Substances in China – IECSC)
  - Japan (Chemical Substance Control Law - CSCL, Industrial Safety & Health Law List - ISHL
  - Philippines (Philippines Inventory of Chemicals and Chemical Substances – PICCS)
  - Taiwan (Taiwan Chemical Substance Inventory - TCSI)
  - Thailand (Thailand Existing Chemical Inventory – TECI)
  - India (India REACH - awaiting implementation)



- **Global Organic Textile Standard (GOTS) v6.0 (2022) and v7.0 (2023)**
  GOTS is concerned with the testing and certification of textiles made from organic fibres and applies worldwide. During processing of GOTS-compliant products, all chemical inputs, including printing inks, have to be tested and approved by a GOTS certification body. GOTS certification of an ink essentially means it has been tested to ensure it does not contain any impurities listed in the GOTS standard v6.0 (2022) or v7.0 (2023) and are therefore suitable for use in organic textiles production. Most of the fabrics used contain at least 70% of natural (organic) fibres and therefore mainly focus around cotton and blends of polyester and cotton containing lower amounts of polyester. Several of our ink series are compliant with all aspects of GOTS v6.0 (2022) and v7.0 (2023) and thus can be used as inputs for textile processing. GOTS approved inputs are listed on the GOTS Letter of Approval. A copy of this is available on request. This document is updated frequently with new products from our ranges. It covers mainly our Reactive and Acid dye inks, but also pigment inks. It is not usual to add sublimation inks or direct disperse inks to the GOTS certificate as they are predominantly for use on synthetic fibres with insufficient natural fibre content to be compliant with GOTS.

GOTS Approved Additive
Approved by: Ecocert Greenlife
GOTS-Ecocert- 08-01479

- **OEKO-TEX® ECOPASSPORT 01.2023**
  OEKO-TEX® is recognized as a very stringent set of textile standards which enable consumers and companies to make responsible decisions which protect our planet for future generation. There are seven different standards within the OEKO-TEX framework – Made in Green, Standard 100, Leather Standard, STeP, Detox to Zero, Organic Cotton (new in 2023) and ECO PASSPORT. The most relevant to our inks is ECO PASSPORT. The ECO PASSPORT identifies chemicals, colourants and auxiliaries used in the textile and leather industry which are not harmful to health and which are environmentally friendly. This certification covers mainly our sublimation inks and direct disperse inks but also now covers the newly launched series of reactive dye inks.

- **Zero Discharge of Hazardous Chemicals (ZDHC) MRSL v2.0 and v3.0**
  The ZDHC Roadmap to Zero Program leads the fashion industry to eliminate harmful chemicals from its global supply chain by building the foundation for more sustainable manufacturing to protect workers, consumers and our planet's ecosystems. Most of our inks are listed on the ZDHC portal as Level 3 classified inputs for textile processing. This is the highest rating for our inks, meaning that the inks are compliant with the MRSL and furthermore our manufacturing facilities and quality systems have recently been approved by full audit.

  Chemicals to Zero (CtZ)
  Chemicals to Zero is a ZDHC programme to drive better chemistry in chemical formulations used in the textile, apparel, leather and footwear industry. It is a journey of a chemical formulation through 3 levels: Foundational, Progressive and Aspirational. In the ZDHC MRSL Conformance Guidance V2 Sun Chemical digital textile inks are awarded mainly Progressive Status.

- **Inditex**
  Inditex is a group of fashion brands who work together to ensure that textiles are produced according to strict and responsible guidelines, in a similar way to GOTS and OEKO-TEX. Inditex has developed its sustainability code, called "Green to Wear 2.1" to ensure that products produced under Inditex comply with the most stringent environmental and product health requirements. Due to the importance of selecting appropriate chemical products for compliance with the sustainability policies, Inditex focuses their chemical management strategy in "The List by Inditex". This is a program linked to the Green to Wear 2.1 scheme.

  Our inks are not listed in "The List" but are however suitable in the Inditex "Clear to Wear" scheme as compliant chemical inputs. This applies to those inks which are ZDHC MRSL v.2.0 or v3.0 Level 3 compliant only. According to the "Clear to Wear" guidance, those chemical inputs which conform to ZDHC Level 3 do not require additional testing as inputs for Inditex.

- **Bluesign®**
  Bluesign® claims to also unite the entire textile value chain to reduce impact on people and planet. Building on 20 years of experience in the textile industry, Bluesign® is a full-service solutions system with a focus on sustainable chemistry. We are not a member of the Bluesign® scheme. However, we can provide guidance on whether our inks meet the criteria of the BSBL v4.0 (2022), but we do not test our inks against the BSBL v4.0 criteria in a Bluesign® accredited laboratory.

- **HemTex**
  We are not a member of the HemTex scheme. However, in certain circumstances, we would be amenable to assisting end users, on an occasional basis, to investigate compliance of the final printed textile or leather articles.

Substances of Concern

As part of our ongoing certification, registration and testing processes, we test our inks and raw materials for at least the classes of impurities listed below to ensure they are within the required levels for compliance. If further details are required, our regulatory team would be pleased to assist.

- Aromatic and halogenated solvents (VOC's)
- Flame Retardants
- Chlorinated benzenes, paraffins and toluenes
- Chlorinated phenols (including both salts and esters)
- Complexing agents and surfactants
- Endocrine disruptors
- Formaldehyde and other short-chain aldehydes
- Azo dyes and pigments releasing carcinogenic arylamine compounds (MAK III, Category 1,2,3,4)
- Inks with halogen containing compounds
- Organotin compounds
- Phthalates
- Polycyclic Aromatic Hydrocarbons (PAH)
- Per- and Polyfluorinated compounds (PFC/PFAS)
- Short chain chlorinated Paraffins
- Glycols
- Heavy metals (Specifically Sb, As, Pb, Cd, Cr, Co, Cu, Ni, Hg, Ag, Ba, Fe, Mn, Se, Sn, Zn)
- Pesticides
- Other typical chemical residues
- Biologically active products
- Solvent residues
- Surfactant and wetting agent residues
- UV stabilizers
- Siloxanes
- Specific product preservatives (OPP, CMK/CMC, TCMTB, OIT, MCBT)
- Isocyanates and diisocyanates

Sun Chemical has a team dedicated to regulatory compliance who keep up to date with all textile standards and requirements to ensure the best service to our customers. For any queries, please contact us.

Experience. *Transformation.*

A partner who transforms with you.

Today's environment requires more than change. It demands transformation — and a partner who's willing to transform with you. Sun Chemical, a member of the DIC group, is a leading producer of packaging and graphic solutions, color and display technologies, functional products, electronic materials, and products for the automotive and healthcare industries. Together with DIC, Sun Chemical is continuously working to promote and develop sustainable solutions to exceed customer expectations and better the world around us. With combined annual sales of more than $8.5 billion and 22,000+ employees worldwide, the DIC Group companies support a diverse collection of global customers. As you move forward into a world of stiffer competition, faster turnarounds, more complex demands and sustainable products, count on Sun Chemical to be your partner.

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