SPP 70

Global Product and Component Specification

For the Environment

Contents

1. Purpose

This document defines X-Rite's environmental requirements for substance, preparation and article usage and markings for all X-Rite produced products and associated packaging.

2. Scope

The requirements specified in this document apply to all X-Rite brand products and associated packaging and includes any substance, preparation or article incorporated into such products. Any exceptions, such as for non-X-Rite brand products and packaging (e.g., product produced or packaging used by X-Rite but containing a customer name label) will be explicitly stated by X-Rite. Such exceptions must, as a minimum, meet the applicable legal requirements in each region in which these products will be sold or marketed irrespective of any stated X-Rite or customer requirements. Unless exceptions are explicitly stated by X-Rite, the requirements of this document apply.

2.1 Applicability

The requirements of this document applies to all X-Rite design centers, X-Rite manufacturing facilities and X-Rite suppliers involved in providing designs, substances, preparations or articles, including packaging, used in X-Rite produced products.

3. General Requirements

Due to the ever increasing volume and complexity of global environmental expectations and regulations, it is important that all providers of designs, substances, preparations and articles for X-Rite produced products and packaging be aware of and be able to provide evidence of compliance to these requirements.

X-Rite will identify and maintain, to the best of our knowledge, a list of those general environmental expectations and regulations that apply to X-Rite produced products and their packaging. This information represents the various expectations and regulations in existence but should by no means be considered all encompassing. In some cases, additional environmental expectations or regulations may be specified for specific products based on need.

All providers of designs, substances, preparations or articles used in X-Rite products or associated packaging are required to comply with the expectations and regulations contained in this document (and any applicable legal requirement regardless of whether it is or is not specified in this document) in effect at the time of delivery of the design, substance, preparation or article to X-Rite. In the event of a conflict between this document and applicable regulations, the applicable regulations shall have precedence unless the requirement stated in this document is stricter.

The X-Rite Environment, Health and Safety (EHS) group maintains sole responsibility for this document, its contents, and its maintenance. The EHS group serves as a limited-resource to assist providers of

designs, substances, preparations and articles for X-Rite produced product and associated packaging to meet these requirements, however the ultimate responsibility resides with the provider themselves.

3.1 General Regulations

The following table lists representative major regulations, initiatives and guides from around the world. These are to be adhered to for the designs, substances, preparations or articles used in X-Rite products and associated packaging.

Region	Common Name or Topic	Legislation[1]	Regulates
EU	RoHS	Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.	Content and restriction of specified substances in products placed on the EU (and associated) markets
EU	REACH	Regulation EC 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)	Content and disclosure of Substances of Very High Concern (SVHC) placed on the EU (and associated) markets
EU	WEEE	Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003 on waste electrical and electronic equipment (WEEE).	The creation of collection schemes where consumers return their used e-waste free of charge for recycling so as to avoid placing it in landfills.
EU	Packaging	Directive 94/62/EC of 20 December 1994 on packaging and packaging waste	Addresses packaging reduction, recycling, content and markings for product placed on the EU (and associated) markets
EU	Hazardous Substances	Directive 76/769/EEC of 27 July 1976 on the approximation of the laws, regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations	Address the marketing and use of dangerous substances and preparations (Note: Directive 76/769/EEC superseded by Regulation EC 1907/2006 as of June 2009)
EU	Batteries	Directive 2006/66/ of the European Parliament and of the Council of 6 September 2006 on batteries and accumulators and waste batteries and accumulators	Addresses battery markings, disposal, collection, recycling, and content
EU	EuP	Directive 2005/32/EC on the eco-design of Energy-using Products (EuP)	Addresses energy usage in products and sets requirements for efficiency
China	China RoHS	Management Methods for Controlling Pollution by Electronic Information Products (Ministry of Information Industry Order #39) February 28, 2006	Disclosure and documentation of specified substances in products placed on the China markets
Atlantic	OSPAR	OSPAR Commission	Addresses maritime pollution in the north-east Atlantic region in collaboration with various agencies such as the EC and EEA
USA	ODS	Clean Air Act	Addresses restrictions on ozone depleting substances
USA	Prop 65	California Proposition 65	Addresses the obligation to notify the user about certain hazardous substances they may be exposed to from the environment or products they come into contact with
Norway	PoHS	Prohibition on Certain Hazardous Substances in Consumer Products (Pending legislation)	Proposed legislation similar to EU RoHS legislation although stricter requirements on some substances and includes other substances
Global	JIG	Joint Industry Guide (JIG-101) Material Composition Declaration for Electronic Products	Industry-wide guide that addresses banned and restricted substances and thresholds for disclosure
Japan	Hazardous Substances	Labor Safety and Health Law	Addresses restrictions of substances
Japan	Hazardous Substances	Law Concerning the Examination and Regulation of Manufacture etc. of Chemical Substances	Addresses restrictions of substances

1. All amendments to the various documents also apply.

3.2 Substance Regulations

The following tables list major substances (listed alphabetically) that are subject to various regulatory controls and/or are of environmental concern. These regulations and controls, existing and pending, are to be adhered to for all designs, substances, preparations or articles used in X-Rite products and associated packaging. ("Pending" in the following tables refers to proposed regulations that are in addition to other existing regulations or requirements. These pending requirements are to be adhered to when stricter than existing requirements.)

Substance[1]	**2,4,6-tri-tert-butylphenol**
Requirement(s)[2]	Not to be used.
Reference(s)[3]	Japan – Law Concerning the Examination and Regulation of Manufacture of Chemical Substances, Class I

Substance[1]	**2-naphylamine / Beta naphthylamine and its chlorides CAS No. 91-59-8**
Requirement(s)[2]	Not to be used.
Reference(s)[3]	Japan – Labor Safety and Health Law

Substance[1]	**4-aminodiphenyl / 4-aminodiphenyl and its chlorides CAS No. 92-67**
Requirement(s)[2]	Not to be used.
Reference(s)[3]	Japan – Labor Safety and Health Law

Substance[1]	**4-nitrodiphenyl and its chlorides CAS No. 92-93-3**
Requirement(s)[2]	Not to be used.
Reference(s)[3]	Japan – Labor Safety and Health Law

Substance[1]	**Aldrin CAS No. 309-00-2**
Requirement(s)[2]	Not to be used.
Reference(s)[3]	Japan – Law Concerning the Examination and Regulation of Manufacture of Chemical Substances, Class I

Substance[1]	**Alkylphenols (Nonylphenols/ethoxylates; NPs, NPEs, OPs, OPEs)**
Requirement(s)[2]	NPs and NPEs may not be placed on the market or used as a substance or constituent of preparations in concentrations equal or higher than 0.1 %(1000 ppm) by mass. Use of other alkylphenols/ethoxylates should be minimized.
Reference(s)[3]	EU – Directive 76/769/EEC and its amendments, Regulation EC 1907/2006 and its amendments Canada – CEPA 1999 Schedule 1 List (2002) Atlantic Region – OSPAR

Substance[1]	**Antimony and Antimony Compounds**
Requirement(s)[2]	Use to be minimized. Default reporting threshold of 0.1% (1000 ppm) by weight in any homogeneous material.
Reference(s)[3]	Industry Guide – JIG-101 (Level B)

Substance[1]	**Arsenic and Arsenic Compounds**
Requirement(s)[2]	Pending PoHS Legislation: No more than 0.1% (1000 ppm) allowed in electrical and electronic equipment, 0.01% (100 ppm) in other – per homogeneous material. Not to be used in wood products and paint. Default reporting threshold of 0.1% (1000 ppm) by weight in any homogeneous material. (Preferred: Any content to be reported). Note: Several arsenic compounds are already on the REACH SVHC Candidate List and it is probable that all arsenic compounds will be added – thus the reporting threshold of >0.1% (1000 ppm) by weight in articles
Reference(s)[3]	Norway – PoHS EU – Directive 76/769/EEC and its amendments, Regulation EC 1907/2006 and its amendments Switzerland – Ordinance on Risk Reduction related to Chemical Products (ORRChem) Industry Guide – JIG-101 (Level B)

Substance[1]	**Asbestos**
Requirement(s)[2]	Asbestos must not be present in parts, components, materials or products.
Reference(s)[3]	EU – Directive 76/769/EEC and its amendments, Regulation EC 1907/2006 and its amendments Japan – Industrial Safety and Health Law Germany – Chemicals Prohibition Ordinance (ChemVerbotsV) Switzerland – Ordinance on Risk Reduction related to Chemical Products (ORRChem) USA- Toxic Substance Control Act, Occupational Safety and Health Act (29 CFR 1910.1001-1051) Industry Guide – JIG-101 (Level A)

Substance[1]	**Azo Compounds**
Requirement(s)[2]	Specified azo colorants must not be present in products (made from textiles or leather) where they may release the aromatic amines listed in appendix 8 of Regulation EC 1907/2006) in concentrations greater than or equal to 0.003% (30 ppm) by weight in any homogeneous material, where the substance may come in prolonged direct contact with exposed skin. Must not be intentionally added.
Reference(s)[3]	EU – Directive 76/769/EEC and its amendments, Regulation EC 1907/2006 and its amendments, Directive 2006/61/EC and its amendments Industry Guide – JIG-101 (Level A)

Substance[1]	**Benzidine and its chlorides CAS No. 92-87-5**
Requirement(s)[2]	Not to be used.
Reference(s)[3]	Japan – Labor Safety and Health Law

Substance[1]	**Benzotriazole (specifically CAS No. 3846-71-7)**
Requirement(s)[2]	Not to be used (normally used for ultraviolet protection or absorber for laminates, paper, molded plastic)
Reference(s)[3]	Japan – Law Concerning the Examination and Regulation of Manufacture of Chemical Substances, Class I

Substance[1]	**Beryllium, Beryllium Oxide and Beryllium Copper**
Requirement(s)[2]	Default reporting threshold of 0.1% (1000 ppm) by weight in any homogeneous material.
Reference(s)[3]	Industry Guide – JIG-101 (Level B)

Substance[1]	**Bis (chloromethyl) ether CAS No. 542-88-1**
Requirement(s)[2]	Not to be used.
Reference(s)[3]	Japan – Labor Safety and Health Law

Substance[1]	**Bismuth and Bismuth Compounds**
Requirement(s)[2]	Default reporting threshold of 0.1% (1000 ppm) by weight in any homogeneous material.
Reference(s)[3]	Industry Guide – JIG-101 (Level B)

Substance[1]	**Bisphenol-A**
Requirement(s)[2]	Pending PoHS Legislation: No more than 0.005% (50 ppm) for homogeneous material. Default reporting threshold of 0.1% (1000 ppm) by weight in any homogeneous material. (Note: Restricted in children's products in several USA States)
Reference(s)[3]	Norway – PoHS USA – Some states (e.g. Connecticut, Illinois, Minnesota) for children's products Industry Guide – JIG-101 (Level B)

Substance[1]	**Cadmium and Cadmium Compounds**
Requirement(s)[2]	Cadmium and its compounds must not be present in parts, components, materials, or products in concentrations greater than 0.01% (100 ppm) by weight in any homogeneous material. This requirement includes cadmium and its compounds in pigments, dyes, stabilizers, plating, and paints, but does not apply to cadmium in the following applications (listed and ordered by EU RoHS Exemption No.): 8. Cadmium and its compounds in electrical contacts and cadmium plating except for applications banned under Directive 91/338/EEC amending Directive 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations. Note: This exemption is likely to end in the next EU RoHS revision except for spare parts. 13. Cadmium in optical and filter glass 21. Cadmium in printing inks for the application of enamels on borosilicate and soda glass. 38. Cadmium and cadmium oxide in thick film pastes used on aluminum bonded beryllium oxide
Reference(s)[3]	EU – Directive 76/769/EEC and its amendments, Regulation EC 1907/2006 and its amendments, Directive 2000/53/EEC and its amendments, Directive 2002/95/EC and its amendments Denmark – Statutory Order 1199 and its amendments China – Management Measures on EIP Pollution Control USA – California Electronic Waste Recycling Act SB20, California Health and Safety Code sections 25214.9-25214.10.2 Switzerland – Ordinance on Risk Reduction related to Chemical Products (ORRChem) Netherlands - Decree 1999 Atlantic Region – OSPAR Norway – PoHS Industry Guide – JIG-101 (Level A)

Substance[1]	**Cadmium – batteries**
Requirement(s)[2]	The total cadmium content of batteries must not exceed 0.001% (10 ppm) by weight.
Reference(s)[3]	EU – Directive 2006/66/EC and its amendments Brazil – CONAMA Resolution 401/2008

Substance[1]	**Chlordane (or Heptachlor)**
Requirement(s)[2]	Not to be used.
Reference(s)[3]	Japan – Law Concerning the Examination and Regulation of Manufacture of Chemical Substances, Class I

Substance[1]	**Cobalt Dichloride**
Requirement(s)[2]	Not to be used as moisture indicator for a desiccant agent (e.g., silica gel) or (humidity cards - 4/2011 pending reg.)
Reference(s)[3]	EU – Regulation EC 1907/2006 and its amendments

Substance[1]	**DDT CAS No. 50-29-3**
Requirement(s)[2]	Not to be used.
Reference(s)[3]	Japan – Law Concerning the Examination and Regulation of Manufacture of Chemical Substances, Class I

Substance[1]	**Dieldrin CAS No. 60-57-1**
Requirement(s)[2]	Not to be used.
Reference(s)[3]	Japan – Law Concerning the Examination and Regulation of Manufacture of Chemical Substances, Class I

Substance[1]	**Dimethyl fumarate**
Requirement(s)[2]	Toxic biocide may not be used in consumer products
Reference(s)[3]	EU - Directive EC 98/8/EC and its amendments

Substance[1]	**Di-μ-oxo-di-n-butylin hydroxyborane (DBB)**
Requirement(s)[2]	Must not be used in preparations at > 0.1% (1000 ppm).
Reference(s)[3]	EU - Directive 76/769/EEC and its amendments, Regulation EC 1907/2006 and its amendments

Substance[1]	**Endrin CAS No. 72-20-8**
Requirement(s)[2]	Not to be used.
Reference(s)[3]	Japan – Law Concerning the Examination and Regulation of Manufacture of Chemical Substances, Class I

Substance[1]	**Formaldehyde**
Requirement(s)[2]	Not to be used (normally found in wooden products).
Reference(s)[3]	Germany – Chemicals Prohibition Ordinance (ChemVerbotsV) Denmark – Statutory Order No. 289 and its amendments Netherlands – Decision of March 22, 2001, laying down the Commodities Decision Formaldehyde in Textiles Austria – BGB I 1990/94; Formaldehydeverordnung, 2, 12/2/1990

Substance[1]	**Fragrances (Musk xylene and ketone)**
Requirement(s)[2]	Pending PoHS Legislation: No more than 0.05% (500 ppm) total by weight in any homogeneous material Default reporting threshold of 0.1% (1000 ppm) by weight in any article as REACH SVHC.
Reference(s)[3]	Norway – PoHS EU – Regulation 1907/2006 and its amendments Atlantic Region – OSPAR

Substance[1]	**Halogen (Bromine and Chlorine)**
Requirement(s)[2]	Voluntary reduction of use. Use to be avoided in parts, components and materials wherever possible. No more than 900 ppm (0.09%) of Bromine or Chlorine allowed by weight in homogenous materials.
Reference(s)[3]	Industry Guide – IPC-4101B Industry Guide –IPC-J-709 Industry Guide –IEC61249-2-21

Substance[1]	**Halogenated aromatic substances**
Requirement(s)[2]	Prohibited from use in capacitors and transformers above 500 ppm for monohalogenated or 50ppm for polyhalogenated aromatic substances in materials of the component.
Reference(s)[3]	Switzerland – Ordinance on Risk Reduction related to Chemical Products (ORRChem)

Substance[1]	**Heavy Metals (lead, cadmium, mercury and hexavalent chromium) in packaging**
Requirement(s)[2]	Packaging materials must not contain lead, mercury, cadmium, or hexavalent chromium where the sum concentration of incidental lead, mercury, cadmium, and hexavalent chromium is greater than 0.01% (100 PPM) by weight in packaging.
Reference(s)[3]	EU – Directive 94/62/EC and its amendments USA (17 states) – Regulations on Heavy Metals in Packaging Materials

Substance[1]	**Hexabromocyclododecane**
Requirement(s)[2]	Being considered for restriction by EU RoHS regulations Default reporting threshold of 0.1% (1000 ppm) by weight in any article as REACH SVHC.
Reference(s)[3]	EU – Directive 2002/95/EC proposed changes, Regulation EC 1907/2006 and its amendments

Substance[1]	**Hexachlorobenzene CAS No. 118-74-1**
Requirement(s)[2]	Not to be used.
Reference(s)[3]	Japan – Law Concerning the Examination and Regulation of Manufacture of Chemical Substances, Class I

Substance[1]	**Hexachlorobutadiene**
Requirement(s)[2]	Prohibited. (Unlikely association with electrical or electronic equipment and its manufacture.)
Reference(s)[3]	Canada – Canada Environmental Protection Act, 1999. Prohibition of Certain Toxic Substances Regulation, 2005. Updated 2007-09-08

Substance[1]	**Hexachlorocyclohexane (Lindane)**
Requirement(s)[2]	(HCH) isomers all products and parts. (Unlikely association with electrical or electronic equipment and its manufacture.)
Reference(s)[3]	Atlantic Region – OSPAR

Substance[1]	**Hexachloroethane**
Requirement(s)[2]	Prohibited in manufacturing or processing of nonferrous metals
Reference(s)[3]	EU – Directive 2001/91/EC and its amendments, Regulation EC 1907/2006 and its amendments Switzerland – Ordinance on Risk Reduction related to Chemical Products (ORRChem) Norway – Norway Product Control Regulation Chapter 2. Restricted Substances and Preparations.

Substance[1]	**Hexachlorobuta-1,3-diene CAS No. 87-68-3**
Requirement(s)[2]	Not to be used.
Reference(s)[3]	Japan – Law Concerning the Examination and Regulation of Manufacture of Chemical Substances, Class I

Substance[1]	**Hexavalent Chromium Compounds**
Requirement(s)[2]	Metallic applications: Hexavalent chromium and its compounds must not be present in any concentration in metallic applications (such as corrosion preventative coatings and conversion coatings). Non-metallic applications: Hexavalent chromium and its compounds must not be present in concentrations greater than 0.1% (1000 ppm) by weight in any homogeneous material. Must not be intentionally added in paints and plastic resins or homogeneous material.
Reference(s)[3]	EU – Directive 2000/53/EC and its amendments, Directive 2002/95/EC and its amendments Switzerland – Ordinance on Risk Reduction related to Chemical Products (ORRChem) China – Management Measures on EIP Pollution Control USA – California Electronic Waste Recycling Act SB20, California Health and Safety Code sections 25214.9-25214.10.2 Industry Guide – JIG-101 (Level A)

Substance[1]	**Hydrofluorocarbon (HFC) and Perfluorocarbon (PFC)**
Requirement(s)[2]	Specified fluorinated gases not to be used.
Reference(s)[3]	EU – Regulation EC 842/2006 and its amendments Denmark – Statutory Order No. 552 Switzerland – Ordinance on Risk Reduction related to Chemical Products (ORRChem)

Substance[1]	**Kelthane or Dicolfol (2,2,2-Trichloro-1,1-bis(4-chlorophenyl)ethanol) CAS No. 115-32-2**
Requirement(s)[2]	Not to be used.
Reference(s)[3]	Japan – Law Concerning the Examination and Regulation of Manufacture of Chemical Substances, Class I

Substance[1]	**Lead and Lead Compounds - general**
Requirement(s)[2]	Lead and its compounds must not be present in parts, components, materials, or products in concentrations greater than 0.1% (1000 ppm) by weight in any homogeneous material. This requirement does not apply to lead in the following applications (listed and ordered by EU RoHS Exemption No.): 5. Lead in glass of cathode ray tubes, electronic components ~~and fluorescent tubes~~ 6a. Lead as an alloying element in steel and galvanized steel containing up to 0.35% lead by weight 6b. Lead as an alloying element in aluminum containing up to 0.4% lead by weight 6c. Lead as an alloying element in copper containing up to 4% lead by weight 7a. Lead in high melting temperature type solders (such as lead-based solder alloys containing 85% or more lead by weight) 7b. Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signaling, transmission, and network management for telecommunications 7c. Lead in electronic ceramic parts (for example, piezoelectronic devices) ~~9b. Lead in lead-bronze bearing shells and bushes~~ ~~11. Lead used in compliant pin connector systems~~ ~~12. Lead as a coating material for the thermal conduction module c-ring~~ 13. Lead in optical and filter glass ~~14. Lead in solders consisting of more than two elements for the connection between the pins and the package of microprocessors with a lead content of more than 80% and less than 85% by weight~~ 15. Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages ~~16. Lead in linear incandescent lamps with silicate coated tubes.~~ 17. Lead halide as radiant agent in High Intensity Discharge (HID) lamps usedfor professional reprography applications. ~~18. Lead as activator in the fluorescent powder (1% lead by weight or less) of discharge lamps when used as specialty lamps for diszo-printing reprography and lithography.~~ ~~19. Lead with PbBiSn-Hg and PbInSn-Hg in specific compositions as main amalgam and with PbSn-Hg as auxiliary amalgam in very compact Energy Saving Lamps.~~ ~~20. Lead oxide in glass used for bonding front and rear substrates of flat fluorescent lamps used for Liquid Crystal Displays (LCDs)~~ 21. Lead in printing inks for the application of enamels on borosilicate glass. ~~23. Lead in finishes of fine pitch components other than connectors with a pitch of 0.65mm or less with NiFe lead frames and lead in finishes of fine pitch components other than connectors with a pitch of 0.65 mm or less with copper lead frames.~~ 24. Lead in solder for the soldering to machined through hole discoidal and planar ceramic multilayer capacitors. 25. Lead oxide in ~~plasma display panels and~~ surface conduction electron emitter displays used in structural elements, notably in the ~~front and rear glass dielectric layer, the bus electrode, the black stripe, the address electrode, the barrier ribs,~~ the seal frit and frit ring~~, and in print pastes~~. ~~26. Lead oxide in the glass envelope of Black Light Blue lamps.~~ 31. Lead in soldering materials in mercury free flat fluorescent lamps (which e.g. are used for liquid crystal displays, design or industrial lighting). 32. Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes 33. Lead in solders for the soldering of thin copper wires of 100 µm diameter and less in power transformers 34. Lead in cermet-based trimmer potentiometer elements 35. Lead in the plating layer of high voltage diodes on the basis of a zinc borate glass body **Lead in Paint -** Lead carbonates and sulfates must not be used in any paint applied to parts, components, materials, or products in concentrations greater than 0.01% (100 ppm) by weight in the paint. **Lead in Polyvinyl Chloride (PVC) Coating for External Cables, Wires and Cords** - The concentration of lead (Pb) in the PVC coating (outer jacket) of external PVC coated cables, wires or cords must not exceed 0.03% (300 ppm) by weight in any homogeneous material. This requirement applies to all PVC coating (outer jacket) of external PVC coated cables, wires or cords, including connectors and plugs, in any part, component, and products. **Note I:** Pending PoHS Legislation would limit lead to 0.01% by weight in homogeneous materials in some products not covered by EU RoHS, some exemptions for glass and other items. **Note II:** Exemptions which are lined-out are expected to be eliminated or further restricted in the next EU RoHS revision.
Reference(s)[3]	EU – Directive 2002/95/EC and its amendments, Directive 76/769/EC and its amendments, Regulation EC 1907/2006 and its amendments Denmark – Statutory Order No. 1012 and its amendments USA – California Proposition 65, California Electronic Waste Recycling Act SB20, 16 CFR 1303, California Health and Safety Code sections 25214.9-25214.10.2 China – Management Measures on EIP Pollution Control Switzerland – Ordinance on Risk Reduction related to Chemical Products (ORRChem) Atlantic Region – OSPAR Norway – PoHS Industry Guide – JIG-101 (Level A)

Substance[1]	**Lead and Lead Compounds – batteries**
Requirement(s)[2]	Batteries and battery packs - lead content must be less than 0.4% (4000 ppm) by total weight. Non-rechargeable type (e.g., zinc carbon or alkaline) batteries must not contain lead exceeding 0.2% (2000 ppm) by weight. See specification for lead-acid batteries. Maximum concentration of 0.1% (1000 ppm) by weight for alkali batteries (CONAMA Resolution 401/2008)
Reference(s)[3]	EU – Directive 2006/66/EC and its amendments Argentina – The Law No. 26.184 Portable Power and Resolution 14/2007 Brazil – CONAMA Resolution 401/2008

Substance[1]	**Medium Chain Chlorinated Paraffins (MCCP)**
Requirement(s)[2]	Pending PoHS Legislation: Medium chain Chlorinated Paraffins (MCCPs) – no more than 0.1% (1000 ppm) by weight in homogeneous materials – some exemptions.
Reference(s)[3]	Norway – PoHS

Substance[1]	**Mercury and Mercury Compounds – general**
Requirement(s)[2]	Mercury and its compounds must not be present in parts, components, materials, or products (including switches, relays or electrical contacts) in concentrations greater than 0.1% (1000 ppm) by weight in any homogeneous material. This requirement does not apply to mercury in certain lamp applications (listed and ordered by EU RoHS Exemption No.): ~~1. Mercury in compact fluorescent lamps not exceeding 5 mg per lamp~~ ~~2. Mercury in straight fluorescent lamps for general purposes not exceeding: 10 mg halophosphate, 5 mg triphosphate with normal lifetime, 8 mg triphosphate with long lifetime~~ ~~3. Mercury in straight fluorescent lamps for special purposes (such as scanner bulbs and backlit displays)~~ ~~4. Mercury in other lamps not specifically mentioned in this list (such as projector lamps and digital projector TVs)~~ 36. Mercury used as a cathode sputtering inhibitor in DC plasma displays with a content up to 30 mg per display until July 1, 2010 **Note I**: Exemptions which are lined-out are expected to be eliminated or further restricted in the next EU RoHS revision as follows: 1. Compact fluorescent lamp exemption will continue with maximum Hg content: 3.5mg for <50W, 5mg for 50 – 150W, (plus other limits) 2a. Linear tri-band phosphor lamp exemption will continue with maximum Hg content: 4mg in T2, 3mg in T5, 3.5 mg in ≥T8, 4mg in "long-life" 2b. Halophosphate lamps will be phased out due to regulation 245/2009 2c. Non-linear tri-band phosphor lamp exemption will continue with maximum Hg content: 15mg 3. Lamps for LCD displays – exemption to continue with specified maximum Hg content (3.5mg for <500mm, 5mg for 500 – 1500 mm and 15mg for >1500 mm) until deleted by to-be-determined date 4. Mercury limits defined for certain other types of lamps with no limits for other lamps not otherwise specified
Reference(s)[3]	EU –Directive 2002/95/EC and its amendments USA – New England Mercury Containing Product Legislation, California Electronic Waste Recycling Act SB20 China – Management Measures on EIP Pollution Control Atlantic Region – OSPAR Industry Guide – JIG-101 (Level A)

Substance[1]	**Mercury and Mercury Compounds – batteries**
Requirement(s)[2]	Batteries must not contain mercury exceeding 0.0005% (5 ppm) by weight. Button cell batteries and batteries composed of button cell batteries, with a mercury content of no more than 2% (20,000 ppm) by weight, are not subject to this requirement. Alkaline zinc and manganese batteries (except button cells) must not contain more than 0.0001% (1 ppm) mercury by weight. The total mercury content of alkaline-manganese button cell batteries must not exceed 25 milligrams of mercury per button cell or 2% (20,000 ppm) by weight, whichever is less. Mercuric oxide batteries are not to be used.
Reference(s)[3]	EU – Directive 2006/66/EC China – 1997 Regulation on Mercury Content Limitation for Batteries, Inspection and Management Method for the Import and Export of Battery Products Containing Mercury Brazil – CONAMA Resolution 401/2008

Substance[1]	**Mirex CAS No. 2385-85-5**
Requirement(s)[2]	Not to be used.
Reference(s)[3]	Japan – Law Concerning the Examination and Regulation of Manufacture of Chemical Substances, Class I

Substance[1]	**Monomethyl-tetrachloro-diphenyl methane (Ugilec 141), Mononmethyl-dichloro-diphenyl methane (Ugilec 121 / 21), Monomethyl-dibromo-dipheyl methane (DBBT)**
Requirement(s)[2]	Not to be used.
Reference(s)[3]	EU - Directive 76/769/EEC and its amendments, Regulation EC 1907/2006 and its amendments

Substance[1]	**Nickel**
Requirement(s)[2]	Nickel finishes that release greater than 0.5 µg/cm^2/week must not be used on the external surface of any product designed to be frequently handled or carried by the user (or intended to be in direct and prolonged skin contact).
Reference(s)[3]	EU – Directive 76/769/EEC and its amendments, Regulation EC 1907/2006 and its amendments Industry Guide – JIG-101 (Level B)

Substance[1]	**N,N'-ditolyl-p-phenylenediamine**
Requirement(s)[2]	Not to be used.
Reference(s)[3]	Japan – Law Concerning the Examination and Regulation of Manufacture of Chemical Substances, Class I

Substance[1]	**Ozone Depleting Substances (ODS) e.g., CFCs, Halons, Carbon Tetrachloride, 1-1-1 Trichloroethane, HBFCs, Methyl Bromide, Trichlorofluoromethane, HCFCs**
Requirement(s)[2]	Specified ODSs must not be present in any parts, components, materials, or products or used in the manufacturing process of any parts, components, materials or products. This requirement does not apply to use of these substances in refrigeration units used in manufacturing facilities or in data center facilities. ODS must not be used in plastic foam packaging materials; for example, as foaming agents. Methyl bromide sterilization must not be used on wood packaging. HCFCs must not be used for solvent cleaning, as blowing agents for foams or as refrigerants.
Reference(s)[3]	EU - Regulation (EC) No. 2037/2000 and its amendments, Directive 76/769/EEC and its amendments, Regulation EC 1907/2006 and its amendments Japan – Law Concerning the Protection of the Ozone Layer Through the Control of Specified Substance and Other Measures USA – Clean Air Act Amendments of 1990 – Article 611, Montreal Protocol Republic of Indonesia – Regulation of the Minister of Industry of the Republic of Indonesia No. 33/M-IND/PER/4/2007 dated April 17, 2007 Industry Guide – JIG-101 (Level A)

Substance[1]	**Pentachlorphenyl, Pentachlorphenol (PCP) CAS No. 87-86-5**
Requirement(s)[2]	Must not be used in preparations at > 0.1% (1000 ppm). Pending PoHS Legislation: No more than 0.1% (1000 ppm) for homogeneous material. Prohibited as treatment in wood.
Reference(s)[3]	EU – Directive 76/769/EEC and its amendments, Regulation EC 1907/2006 and its amendments Atlantic Region – OSPAR Norway - PoHS

Substance[1]	**Perfluorooctane Sulfonates (PFOS) and Perfluoroctyl Acid (PFOA) and related salts and esters of PFOA**
Requirement(s)[2]	PFOS, CAS# 1763-23-1 must not be used in concentrations equal to or greater than 0.1% (1000 ppm) by weight in parts, components, or products. PFOS, CAS# 1763-23-1 must not be used in concentrations equal to or greater than 0.005% (50 ppm) by weight in preparations. PFOA restrictions are being investigated, use should be minimized
Reference(s)[3]	EU – Directive 76/769/EEC and its amendments Atlantic Region - OSPAR

Substance[1]	**Phthalates (DEHP, DBP, BBP, DINP, DIDP, DNOP, DNHP)**
Requirement(s)[2]	(Note: Restricted for use in children's products - USA and EU) Default reporting threshold of 0.1% (1000 ppm) by weight in any article as REACH SVHC.
Reference(s)[3]	USA - Consumer Product Safety Commission Reform Act (and various State regulations) EU – Directive 76/769/EEC and its amendments, Regulation EC 1907/2006 and its amendments Atlantic Region – OSPAR Industry Guide – JIG-101 (Level B)

Substance[1]	**Polybrominated Biphenyls (PBBs), Polybrominated Diphenylethers (PBDEs) Decabromodiphenyl Ether (DecaBDE), Polybrominated biphenyl oxides (PBBOs)**
Requirement(s)[2]	Parts, components, materials, and products must not contain flame retardants that are polybrominated biphenyls (PBBs) or polybrominated diphenyl ethers (PBDEs), including Decabromobiphenyl Ether (DecaBDE), also known as polybrominated biphenyl ethers (PBBEs) and polybrominated biphenyl oxides (PBBOs), in concentrations greater than or equal to 0.1% (1000 ppm) by weight in any homogeneous material.
Reference(s)[3]	EU – Directive 76/769/EEC and its amendments, Regulation EC 1907/2006 and its amendments, Directive 2002/95/EC and its amendments Switzerland – Ordinance on Risk Reduction related to Chemical Products (ORRChem) USA – Ten states ban Penta BDE and Octa BDE, Deca-BDE bans under consideration German law on Dioxin China – Management Measures on EIP Pollution Control Industry Guide – JIG-101 (Level A)

Substance[1]	**Polychlorinated Biphenyls (PCB), Polychlorinated Naphthalenes (PCN), Polychlorinated Terphenyls (PCT)**
Requirement(s)[2]	Polychlorinated biphenyls (PCBs) and polychlorinated terphenyls (PCTs) must not be used in concentrations greater than 0.005% (50 ppm) by weight in preparations. Polychlorinated Naphthalenes (PCNs) (more than 3 chlorine atoms) must not be present in parts, components, materials, or products in concentrations greater than or equal to 0.0005% (5 ppm) by weight in any homogeneous material.
Reference(s)[3]	EU – Directive 76/769/EEC and its amendments, Regulation EC 1907/2006 and its amendments, Regulation EC 850/2004 and its amendments Japan – Law Concerning the Examination and Regulation of Manufacture of Chemical Substances, Class I Atlantic Region – OSPAR Industry Guide – JIG-101 (Level A)

Substance[1]	**Polycyclic Aromatic Hydrocarbon (PAH) Compounds (creosote, coal tar, etc)**
Requirement(s)[2]	PAHs must not be used in the external surfaces of the products listed in concentrations greater than the limits defined by weight in any homogeneous material. Portable equipment and cables (group 2) PAH limits: • Benzo[a]pyren: 1 mg/kg • Sum 16 PAH (EPA): 10 mg/kg Stationary equipment and cables (group 3) PAH limits: • Benzo[a]pyren: 20 mg/kg • Sum 16 PAH (EPA): 200 mg/kg The limits apply to material with foreseeable contact to skin up to 30 seconds (short-term skin contact) or without skin contact.
Reference(s)[3]	EU – Directive 76/769/EEC and its amendments, Regulation EC 1907/2006 and its amendments USA - Air Contaminants (Occupational and Safety Health Act), Hazardous Substances (Superfund) and Toxic Release Inventory Chemicals Germany - German Committee for Commercial Equipment and Consumer Products – mandatory limits for application of GS mark ("Geprufte Sicherheit") Atlantic Region – OSPAR

Substance[1]	**Polyvinyl Chloride (PVC) and blends**
Requirement(s)[2]	Voluntary reduction in use. Organochlorine compounds in the form of polyvinyl chloride or polyvinyl chloride congeners must not be used in parts, components, materials, or products in concentrations equal to or greater than 0.09% (900 ppm) by weight in any homogeneous material. Default reporting threshold of 0.1% (1000 ppm) by weight in any homogeneous material.
Reference(s)[3]	Industry Guide – JIG-101 (Level B)

Substance[1]	**Radioactive Substances**
Requirement(s)[2]	Radioactive substances must not be present in parts, components, materials or products.
Reference(s)[3]	EU – Directive 96/29/EURATOM and its amendments USA- Nuclear Regulatory Commission Title 10 CFR Part 20 Japan – Laws for the Regulation of Nuclear Source Material, Nuclear Fuel Material, and Reactors, 1986 Industry Guide – JIG-101 (Level A)

Substance[1]	**Red Phosphorous flame retardants in Printed Circuit Boards, printed circuit assemblies, electrical and electronic components, packaging materials such as encapsulates, die attach materials, under-fill epoxies and substrates**
Requirement(s)[2]	Must not be intentionally added. Maximum trace amount allowable in stated applications is less than 0.01% (100 ppm) weight.
Reference(s)[3]	General industry concern over detrimental affects when exposed to humidity.

Substance[1]	**Rubber cement containing benzene, where the benzene accounts for more than 5% of the rubber cement solvent (including diluting agent)**
Requirement(s)[2]	Not to be used.
Reference(s)[3]	Japan – Labor Safety and Health Law

Substance[1]	**Selenium and Selenium Compounds**
Requirement(s)[2]	Default reporting threshold of 0.1% (1000 ppm) by weight in any homogeneous material.
Reference(s)[3]	Industry Guide – JIG-101 (Level B)

Substance[1]	**Short Chain Chlorinated Paraffins (SCCP)**
Requirement(s)[2]	Short Chain Chlorinated Paraffins (SCCPs) including, but not limited to, those identified by CAS numbers 63449-39-8 and 85535-84-8, must not be used or contained in softeners in paints, coatings and sealants; in oils; or in flame-retardants in rubber, plastic and textiles, in concentrations greater than or equal to 0.1% (1000 ppm) by weight in any homogeneous material. Default reporting threshold of 0.1% (1000 ppm) by weight in any article as REACH SVHC.
Reference(s)[3]	EU – Directive 76/769/EEC and its amendments, Regulation EC 1907/2006 and its amendments USA – 49 CFR 172.101 Atlantic Region – OSPAR Industry Guide – JIG-101 (Level A)

Substance[1]	**Surfactants (DTDMAC, DODMAC/DSDMAC, DHTDMAC)**
Requirement(s)[2]	Pending PoHS Legislation: No more than 0.1% (1000 ppm) total by weight in any homogeneous material
Reference(s)[3]	Norway – PoHS

Substance[1]	**Tin Compounds (Tributyltin - TBT, Triphenyltin – TPT, (Bis)Tributyl Tin Oxide - TBTO)**
Requirement(s)[2]	TBTs, TPTs, and TBTOs must not be used in parts, components, materials or products in concentrations greater than or equal to 0.0005% (5 ppm) by weight in any homogeneous material. Default reporting threshold of 0.1% (1000 ppm) by weight in any article for TBTO as REACH SVHC.
Reference(s)[3]	EU – Regulation EC 1907/2006 and its amendments Japan – Law Concerning the Examination and Regulation of Manufacture of Chemical Substances, Class I and Class II Atlantic Region – OSPAR Industry Guide – JIG-101 (Level A)

Substance[1]	**Toluene CAS No. 108-83-3**
Requirement(s)[2]	Not to be used as a substance or constituent of preparations in concentrations equal to or greater than 0.1% (1000 ppm) by mass in adhesives and spray paints.
Reference(s)[3]	EU – Regulation EC 1907/2006 and its amendments

Substance[1]	**Toxaphene CAS No. 8001-35-2**
Requirement(s)[2]	Not to be used.
Reference(s)[3]	Japan – Law Concerning the Examination and Regulation of Manufacture of Chemical Substances, Class I

Substance[1]	**Triclosan**
Requirement(s)[2]	Pending PoHS Legislation: No more than 0.001% (10 ppm) for homogeneous material. Default reporting threshold of 0.001% (10 ppm) by weight in any homogeneous material.
Reference(s)[3]	Norway - PoHS Industry Guide – JIG-101 (Level B)

Substance[1]	**Tris (2,3 dibromopropyl) phosphate CAS No. 126-72-7 and Tris-(aziridinyl)-phosphineoxide CAS No. 545-55-1**
Requirement(s)[2]	Not to be used in textile articles intended to come into contact with skin, e.g. wrist straps and headphones.
Reference(s)[3]	EU – Directive 76/769/EEC and its amendments, Regulation 1907/2006 and its amendments Norway – PoHS

Substance[1]	**White phosphorous CAS No. 7723-14-0**
Requirement(s)[2]	Not to be used.
Reference(s)[3]	Japan – Labor Safety and Health Law

1. Refer to references for exact substance names and chemical identification numbers.
2. This is only a summary of the basic requirement for this substance. Refer to references for details, exemptions and application.
3. Reference(s) may consist of legal regulations, standards, or industry guides. Some substances listed are not currently restricted, but regulations are pending, thus reporting and adhering to the stated guidance is expected and important for future use considerations. These are representative reference sources for the listed substance. Other references may also apply. All references are subject to changes and updates at any time.

3.3 REACH Regulations

EU Regulation EC 1907/2006 (REACH) requires the reporting of Substances of Very High Concern (SVHC) that exceed specified thresholds at the Article level and to provide information regarding the safe use of the article. To help fulfill this reporting requirement, all designs, substances, preparations or articles used in X-Rite products and associated packaging must disclose the presence of SVHCs as indicated in the following table. Information regarding the safe use of the SVHC may also be required from the provider.

Item	CAS No.	EC No.	Substance (SVHC)	Reporting Threshold:
1	101-77-9	202-974-4 4,4	4,4'- Diaminodiphenyl-methane	> 0.1% w/w
2	81-15-2	201-329-4	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	> 0.1% w/w
3	85535-84-8	287-476-5	Alkanes, C10-13 chloro (short chain chlorinated paraffins)	> 0.1% w/w
4	120-12-7	204-371-1	Anthracene	> 0.1% w/w
5	1303-28-2	215-116-9	Diarsenic pentaoxide	> 0.1% w/w
6	1327-53-3	215-481-4	Diarsenic trioxide	> 0.1% w/w
7	117-81-7	204-211-0	Bis(2-ethylhexyl)phthalate (DEHP)	> 0.1% w/w
8	56-35-9	200-268-0	Bis(tributyltin)oxide	> 0.1% w/w
9	85-68-7	201-622-7	Butyl benzyl phthalate	> 0.1% w/w
10	7646-79-9	231-589-4	Cobalt dichloride	> 0.1% w/w
11	84-74-2	201-557-4	Dibutyl phthalate	> 0.1% w/w
12	25637-99-4 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8)	247-148-4 221-695-9	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (-HBCDD, -HBCDD, -HBCDD)	> 0.1% w/w
13	7784-40-9	232-064-2	Lead hydrogen arsenate	> 0.1% w/w
14	7789-12-0 10588-01-9	234-190-3	Sodium dichromate	> 0.1% w/w
15	15606-95-8	427-700-2	Triethyl arsenate	> 0.1% w/w
16	294-62-2	206-33-9	Cyclododecane [1]	> 0.1% w/w
17	90640-80-5	292-602-7	Anthracene oil	> 0.1% w/w
18	91995-17-4	295-278-5	Anthracene oil, paste, distallation lights (fractions)	> 0.1% w/w
19	91995-15-2	295-275-9	Anthracene oil, paste, fraction	> 0.1% w/w
20	90640-82-7	292-604-8	Anthracene oil, -low	> 0.1% w/w
21	90640-81-6	292-603-2	Anthracene oil, paste	> 0.1% w/w
22	65996-93-2	266-028-2	Pitch, coal, tar, high temp	> 0.1% w/w
23	79-06-1	201-173-7	Acrylamide	> 0.1% w/w
24	-	-	Aluminosilicate refractory ceramic fibers[2]	> 0.1% w/w
25	-	-	Zirconia aluminosilicate refractory ceramic fibers[3]	> 0.1% w/w
26	121-14-2	204-450-0	2,4-Dinitrotoluene	> 0.1% w/w
27	84-69-5	201-553-2	Diisobutyl phthalate	> 0.1% w/w
28	7758-97-6	231-846-0	Lead chromate	> 0.1% w/w
29	12656-85-8	235-759-9	Lead chcromate molybdate sulphate red (CI Pigment Red 104)	> 0.1% w/w
30	1344-37-2	215-693-7	Lead sulfochromate yellow (CI Pigment Yellow 34)	> 0.1% w/w
31	115-96-8	204-118-5	Tris(2-chloroethyl)phosphate	> 0.1% w/w

1. Cyclododecane is not part of current SVHC list but should be accounted for if present above the threshold.
2. Certain length fibers covered by Regulation (EC) No 1272/2008 containing Al2O3 and SiO2 in certain ranges
3. Certain length fibers covered by Regulation (EC) No 1272/2008 containing Al2O3, SiO2 and ZrO2 in certain ranges

3.4 Other Requirements and Recommendations

The following tables list "other" requirements and recommendations for X-Rite branded products not covered elsewhere. Unless specifically modified by X-Rite or OEM requirements (where allowed), X-Rite manufactured OEM branded products must also comply.

Subject	Plastics Marking
Requirement(s)	Mark plastic parts of 25 grams or greater (if feasible) with, as a minimum, the following to aid in recycling of the part • Polymer / blends / laminates used • Flame retardant used • Filler / reinforcement / plasticizer used
Reference(s)[3]	X-Rite – SPP 71 Plastic Parts Marking Requirements Industry Guide - ISO/DIS 11469 - Plastics - Generic Identification and Marking of Plastic Products, ASTM D1972 - Standard Practice for Generic Marking of Plastic Products, ISO 1043-1, 2, 3, 4 - Plastics - Symbols… (Part 1 through 4.)

Subject	Energy Usage and Efficiency
Requirement(s)	• EuP requirements must be complied with • Energy Independence and Security Act of 2007 must be complied with • Energy Star® Program compliance recommended
Reference(s)[3]	X-Rite – SPP 73 Batteries and Energy Using Products Requirements EU – Directive 2005/32/EC, Regulation EC 1275/2008, Regulation EC 244/2009, Regulation EC 245/2009 and their amendments USA - Energy Independence and Security Act of 2007 USA – www.energy star.gov

Subject	Battery Marking
Requirement(s)	All batteries and battery packs must be appropriately marked as required by applicable regulations.
Reference(s)[3]	X-Rite – SPP 73 Batteries and Energy Using Products Requirements USA – Code of Federal Regulations (49 CFR 173.21(c)) EU – Directive 2006/66/EC, Directive 98/101/EC, Directive 91/157/EEC, Directive 93/86/EEC and their amendments Other – Many country specific requirements for China, Taiwan, Canada, Brazil, … – see SPP 73

Subject	Battery Transport Classification
Requirement(s)	All batteries must meet all applicable design, manufacture, marking, testing, and other battery specific requirements necessary to be classified as —Not Restricted for purposes of transport for all modes of transportation, as defined in the listed regulations and test documents. (Note: Non-rechargeable alkaline and carbon-zinc batteries must be hermetically sealed.)
Reference(s)[3]	X-Rite – SPP 73 Batteries and Energy Using Products Requirements USA - "Hazardous Materials Regulations," Title 49, Code of Federal Regulations, US Department of Transportation (DOT) International Civil Aviation Organization (ICAO), "Technical Instructions for the Safe Transport of Dangerous Goods by Air" International Air Transport Association (IATA), "Dangerous Goods Regulations" UN ST/SG/AC.10/aa/Rev. 4 Recommendations on the Transport of Dangerous Goods Manual of Tests and Criteria

Subject	External Power Supplies (EPS)
Requirement(s)	All external Class A power supplies of 250 watts and under must comply
Reference(s)[3]	X-Rite – SPP 73 Batteries and Energy Using Products Requirements USA - Energy Independence and Security Act of 2007 EU – Regulation EC 278/2009

Subject	Packaging - Recyclable Materials
Requirement(s)	• All materials used in the packaging systems must be recyclable. Choose materials in which recycling systems are readily available. Do not use permanent glue or adhesives to attach dissimilar materials such as foam cushions to corrugate. • Expanded Polystyrene is restricted for packaging materials of some products to South Korea. • Wood packaging materials have country specific restrictions
Reference(s)[3]	X-Rite – SPP 72 Packaging Material and Marking Requirements EU – Directive 94/62/EC and its amendments South Koreas – EPS Packaging Restrictions Other – Country specific wood packaging material restrictions

Subject	Product, Documentation, Packaging - Markings
Requirement(s)	All materials used in the packed systems must be properly marked to meet the applicable requirements of the region(s) the product will be shipped to.
Reference(s)[3]	X-Rite – SPP 72 Packaging Material and Marking Requirements, SPP 74 Product and Documentation Marking Requirements EU - Directive 94/62/EC and its amendments EU - Directive 2002/96/EC and its amendments EU - Directive 2006/66/EC and its amendments China - Management Methods for Controlling Pollution by Electronic Information Products (Ministry of Information Industry Order #39) February 28, 2006 (China RoHS) USA - California Perchlorate Material Notice, Rechargeable Battery Notice USA – Mercury Content Notice

1. Reference(s) may consist of legal regulations, standards, industry guides or company requirements. These are representative sources. Other references may also apply. All references are subject to changes and updates at any time.

GPCSE Revision History

Revision	Change
A. December 2004	Initial release as PCSE
B. August 28 2007	Changed name from PCSE to GPCSE, Added signature page, Included battery and packaging sections
C. September 28 2007	Section 3: • Added PFOS restriction • Revised the nickel restriction to align with the regulation Section 6: • Added non-rechargeable type batteries must not contain lead exceeding 0.2% (2000 ppm) by weight, and non-rechargeable alkaline and carbon-zinc batteries must be hermetically sealed • Revised US based restrictions on memory in alkaline-manganese and zinc-carbon batteries at 0.0001% (1 ppm) • Added non-rechargeable alkaline and carbon-zinc batteries must be labeled with the battery manufacturer's brand name, model designation, expiration data (month and year) and country of origin • Deleted the note that labeling requirements for the Netherlands must also be met Section 7 • Clarified methyl bromide sterilization must not be used • Added that all materials used in the packaging systems must be recyclable
D. April 15 2008	Revised error in sub-clause 3.16 Perfluorooctane sulfonates from "These requirements in section 3.15.1 and 3.15.2 do not apply…" to "These requirements in section 3.16.1 and 3.16.2 do not apply…"
E. May 28 2008	Added REACH Directive EC 1907/2008
F. May 12 2009	Complete update to latest regulations and industry expectations, re-write and simplification of the document, added revision letter to revision date. SVHCs added. Plastic marking requirement added. Substance Declaration Worksheet added. Following substances added: Alkylphenols, Decabromodiphenyl Ether (DecaBDE), Antimony, Arsenic, Benzotiazole, Beryllium Oxide and Copper, Bismuth, Bisphenol-A, Cobalt Dichloride, Dimethyl fumarate, Fragrances (musk), Halogen and Halogenated substances, Hexachloro- substances, Hexabromocyclododecane, MCCPs, Pentachlorphenyl (PCP), PFOA, Phthalates, PAH, PVC, Red Phosphorous, Selenium, Surfactants, Toluene, Triclosan, Tris- substances
G. January 8, 2010	ECO No. 18894: Section 3.1: Added two Japan regulations: • Labor Safety and Health Law • Law Concerning the Examination and Regulation of Manufacture etc. of Chemical Substances Section 3.2 • Corrected Benzotriazole CAS No. WAS: 3846-71-1, IS: 3846-71-7 • Added the following new restricted substances: White phosphorous, Benzidine and its chlorides, 4-aminodiphenyl/4-aminodiphenyl and its chlorides, Bis(chloromethyl) ether, 2-naphylamine / beta naphthylamine and its chlorides, Rubber cement with 5% benzene, Hexachlorobenzene, Aldrin, Dieldrin, Endrin, DDT, chlordane (or Heptachlor), bis(tri-n-butylin) oxide, N,N'-ditolyl-p-phenylenediamine, 2,4,6-tri-tert-butylphenol, Toxaphene, Mirex, Kelthane (or Dicofol), Hexachlorobuta-1,3-diene • Changed Cadmium and Cadmium Compunds table: o Added "(listed and ordered by EU RoHS Exemption No.)" o Changed bullet "•"symbol to applicable Exemption No. o Reworded (Exemption No. 8) regarding cadium usage in electrical contacts and plating to match directive wording. Added "…in the next EU RoHS revision…" o Removed "Cadmium in photo resistors…" as this exemption (No. 35) expired 31 Dec 2009 • Changed Lead and Lead Compounds table: o Added "(listed and ordered by EU RoHS Exemption No.)" o Changed bullet "•"symbol to applicable Exemption No. o Removed "Lead as impurity in RIG…" as this exemption (No. 22) expired 31 Dec 2009 • Changed Mercury and Mercury Compounds table: o Added "(listed and ordered by EU RoHS Exemption No.)" o Changed bullet "•"symbol to applicable Exemption No. o Re-formated "Mercury in straight fluorescent lamps for general…." Exemption (No. 2) statement o Removed bullet "•"symbol from Note I list of forthcoming exemption changes • Added table for Di-µ-oxo-di-n-butylin hydroxyborane (DBB) • Deleted Halogenated Diphenyl Methane table and replaced with Monomethyl… table

	Section 3.3 • Added SVHC Item number column to table, added new SVHC items 17 through 31 Section 3.4: Energy Usage and Efficiency table • Added (USA) Energy Independence and Security Act of 2007 references Substance Declaration Worksheet column titled “Complies with X-Rite GPCSE?”: • Added text to title row asking user to “Please Select one: Yes, Yes by Exemption, or No.” • Removed drop down menu from cells in the same column

Supplier Compliance
To the
X-Rite Global Product and Component Specification for the Environment

Company Name _____

Name and Title _____

Authorized Signature _____

Contact information (Address) _____

Telephone _____

FAX _____

Email _____

Date _____

On behalf of the aforesaid company, I hereby attest that I understand the requirements of the X-Rite Global Product and Component Specification for the Environment (GPCSE). I further attest that to the best of my knowledge, any designs, articles and substances provided by the aforesaid company comply with the requirements of the X-Rite GPCSE and any applicable legal requirements governing their use in effect at the time of delivery to X-Rite. Any exceptions from this statement will be clearly documented in a Substance Declaration Worksheet.

Please return this signed Supplier Compliance acknowledgement and Substance Declaration Worksheet(s) to X-Rite Purchasing prior to authorization for shipment.

Note: In order to more efficiently facilitate the reporting of hazardous substances as required by various regulations (e.g., RoHS, REACH), any design, substance, preparation, or article being supplied to X-Rite MUST have a Substance Declaration Worksheet prepared for it. Please use the attached worksheet (or an alternate such as IPC-1752-2) to make the declaration.

X-Rite Global Product and Component Specification for the Environment (GPCSE) - Substance Declaration Worksheet

Instructions:

1. This Substance Declaration Worksheet refers to the X-Rite GPCSE revision as shown in the footer of the worksheet.
2. Environmental compliance information should be provided for all substances, preparations or articles being supplied.
3. User to enter requested information in the table. Please use exact and concise language. Expand rows or use additional sheets as needed.
4. User to fill in company name, date, and an authorized signature attesting that the information is complete and accurate to the best of your knowledge.
5. Alternate declaration worksheet may be used as long as all requested information on this form is provided.
6. Return the completed information to X-Rite Purchasing prior to shipment authorization.

Supplier / Company Name	Signature of Authorized Supplier Representative	Date

X-Rite Part Number	Supplier Part Number	Part Description	Complies with X-Rite GPCSE? Please select one: • Yes • Yes by Exemption • No	If "Yes by Exemption" or "No", please list exact Exemption(s) or Reason(s) and, if applicable, actual (or maximum) substance content. REACH-SVHCs above allowed thresholds must be listed along with actual (or maximum) content.	
				Exemption(s) / Reason(s) / SVHC(s)	% or ppm