EHS 1001
Xerox Environment, Health & Safety Supplier Requirements:

Chemical Bans/Restrictions and Part Markings

Version 8.5.4 (April 2021)

xerox™

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Preface

Please direct any questions about these requirements to your Xerox procurement contact.

This document is available at:
https://www.xerox.com/downloads/dl/usa/en/f/FILE_EHSA_XRX_INFO_REQUIREMENTS_1001.pdf

Contents

1. Introduction

1.1 Objective

This document establishes Xerox Corporation's environmental, health and safety (EH&S) requirements for its suppliers with regard to regulatory compliance, chemical bans and restrictions, and parts marking. The requirements support Xerox's commitment to regulatory compliance, safe products, protection of the environment/human health and customer satisfaction as stated in the company's corporate EH&S policy (Appendix B).

1.2 Applicability

Xerox Corporation's suppliers of products, materials, part and packaging

1.3 Responsibilities of Xerox Suppliers

Xerox suppliers:

- Shall meet all requirements of this standard.
- Shall certify compliance with this specification using all forms in Appendix C.
- Shall retain information and/or data to demonstrate compliance with this specification including but not limited to the Xerox or supplier part number, part or material description, substance or substances disclosed, substance percentage used by weight, supplier certificates of compliance of components and materials, results of analysis and analytical source where applicable, and the name of a responsible person.
- Shall complete all forms when providing both new and updated component part information. Partial form completion, even when providing updates is not acceptable for our information management system.
- Shall provide, upon request, Xerox and/or third parties responsible for verification with copies of the aforementioned information as well as any other applicable compliance documentation
- Shall ensure that their suppliers also utilize socially responsible supply chain due diligence practices including but not limited to mining and smelting operations. Suppliers will operate in compliance with Section 1502 of Dodd-Frank Wall Street Reform and Consumer Protection Act relating to the use of Conflict Minerals.
- Shall have an Environmental Management System.

1.4 Future Updates

Xerox will review this document on a periodic basis and will make any necessary revisions to ensure that these requirements remain relevant to current EH&S regulations, stakeholder requirements and industry practices. The changes are explained in Revision History. Forms completed using earlier versions of this document remain valid unless new data is specially requested.

2. Specification

2.1 Regulatory Compliance

Suppliers shall comply with all applicable EH&S laws and regulations in the jurisdiction in which they operate and shall comply with all EH&S laws and regulations applicable to the product, part, material, packaging or commodity provided to Xerox.

2.2 Ozone Depleting Substances

Supplier shall not incorporate an Ozone Depleting Substance (ODS) as defined by the Montreal Protocol and US Environmental Protection Agency Clean Air Act Amendments of 1990 in the manufacture or processing of a product, part, or commodity provided to Xerox. A list of ODS is available at http://www.epa.gov/ozone/ods.html.

2.3 Chemical Substances Bans and Restrictions

Supplier shall meet the Xerox Specifications for control of Chemical Substances in Products, Parts, Accessories, Materials and Packaging as specified in Appendix A. Additional requirements apply to consumables; see Xerox Standards EHS-701 (chemical substances and mixtures) and EHS-1010 (paper and media). For Packaging, reference Xerox Standard EHS-710.

Supplier shall provide the weight (in grams) of each battery contained in any given part or product.

2.4 Parts Markings

Supplier shall mark plastic parts, assemblies and end-items provided to Xerox, with the resin content identification code as specified in Xerox Multinational Design Standard 88P215 “Methods and Requirements for Part Marking Identification” or ISO Standard 11469:2016, “Plastics-Generic identification and marking of plastic parts”. **Note that this requirement applies to parts weighing more 25 grams**. In accordance with ISO 11469, manufacturers must use the symbols and terms given in ISO 1043:2016

2.5 Packaging

- Supplier must comply with the requirements as defined in Xerox Standard EH&S-710, “EH&S Requirements for Packaging” http://www.xerox.com/downloads/usa/en/f/FILE_EHSA_XRX_INFO_REQUIREMENTS_710.pdf
- This standard specifies the minimum environment, health, and safety requirements for packaging of products, parts, or materials shipped to any manufacturing site, distribution center or customer from suppliers or other Xerox locations.

3. Appendix A – Xerox Specifications for Control of Chemical Substances in Products, Parts, Materials and Packaging

A.1 Objective

- This appendix details Xerox Corporation's specifications for prohibiting and restricting certain chemical substances in products, parts, materials and packaging provided to Xerox for use in Xerox® products. Additional requirements apply to Xerox® consumables.
- Xerox compliance program and restricted substance control framework is in accordance with IEC62476 (guidance for evaluation of products with respect to substance-use restrictions in electrical and electronic products) and our restricted / reportable substance are aligned with IEC62474 (material declarations for products of and for the electrotechnical industry).

A.2 Definitions

- **Accessories**: items not integral to, but necessary for, use of a product. Accessories include, but are not limited to, items such as power cords, finishers, feeders or product manuals.
- **Batteries**: any source of electrical energy generated by direct conversion of electrical energy and consisting of one or more primary battery cells (non-rechargeable) or of one or more secondary battery cells (rechargeable).
- **Consumables**: items such as inks, toners, fuser lubricant or papers.
- **Electronic product**: electrical and electric equipment that is within the scope of the waste electrical and electronic equipment Directive 2002/96/EC and/or the restriction of the use of certain hazardous substances in electrical and electronic equipment Directive 2002/95/EC and subsequent revisions.
- **Impurity**: residual quantities of chemical substances that are unintentionally present in raw materials or are by-products of the manufacturing process.
- **Ingredient**: any chemical substance intentionally used in the formulation of a material for use in the manufacture of electrical and electronic products or components thereof.
- **Material**: any chemical substance or homogeneous mixture of substances.
- **New product**: any piece of equipment put on the market for the first time, regardless of the date of launch of the particular model and supplied as new.
- **Packaging**: refers to containment for the purposes of marketing, protection or handling of a product and shall include a unit package, an intermediate package and a shipping container.
- **Part**: any functional unit comprised of one or more mechanical or electrical components.
- **Put on the market**: the initial action by which a product is made available for the first time, i.e., leaves the factory or enters distribution, in the applicable territory.
- **Re-used product**: any piece of equipment that has already been placed for the first time on the applicable market and is then supplied as used or previously owned, without modification other than repair, reconditioning or upgrade.
- **Spare parts**: any part made available for replacement of like parts in existing equipment.

- **Analytical Testing**: testing for RoHS restricted substances must be conducted in compliance with EN62321 – Determination of levels of six regulated substances (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers) plus additional testing as required for restricted phthalates.

A.3 Specifications

- **A.3.i Prohibited Substances**

  The substances listed in Table A1 and A2 shall not be used as ingredients in any material or part provided to Xerox for use in equipment, or in spare parts for use in products, or in accessories, or in packaging except as defined by further qualification or exemptions. Additional requirements apply to Xerox® consumables as outlined in EH&S 701 Xerox Environment, Health and Safety Requirements for Materials.

- **RoHS[1] Prohibited Substances**

  Table A1 covers European Union RoHS prohibited or banned substances. These requirements apply to electronic products put into distribution for the first time after July 1, 2006 and/or parts and materials intended for use in electronic products put into distribution for the first time after July 1, 2006. These requirements have been revised to cover additional substances which are restricted from July 22, 2019. Xerox only allows the use of these prohibited materials for applications that have been determined by the European Union to be exempt because substitutes are technically infeasible at this time or because substitutes would have adverse safety or environmental effects.

  A list of approved RoHS exemptions may be found in Table A3.

- **UAE RoHS**

  Xerox Electrical and Electronic Equipment (EE) must comply with United Arab Emirates (UAE), issued Federal Law No. 10 of 2017 inclusive of restricted substance limits: Annex 2 of cabinet order No.10. This Law is aimed at strengthening the legal measures for the protection of domestic service workers

Table A1. RoHS Prohibited Substances (EU / UAE)

Substance	Qualification
Cadmium and its compounds	Prohibited unless its application is exempted per ROHS[1]. The substances shall not be present in concentrations exceeding 0.01% by weight per homogeneous material used in parts or products[2].
Hexavalent Chromium and its compounds	Prohibited unless its application is exempted per ROHS[1]. The substances shall not be present in concentrations exceeding 0.1% by weight per homogeneous material used in parts or products[2].
Lead and its compounds	Prohibited unless its application is exempted per ROHS[1]. The substances shall not be present in concentrations exceeding 0.1% by weight per homogeneous material used in parts or products[2].
Mercury and its compounds	Prohibited unless its application is exempted per ROHS[1]. The substances shall not be present in concentrations exceeding 0.1% by weight per homogeneous material used in parts or products[2].
Polybrominated biphenyls (PBBs)	The substances shall not be present in concentrations exceeding 0.1% by weight per homogeneous material used in parts or products[2].
Polybrominated diphenyl ether (PBDEs) including deca-BDE	The substances shall not be present in concentrations exceeding 0.1% by weight per homogeneous material used in parts or products[2].

Substance	Qualification
Bis(2-ethylhexyl phthalate (DEHP)**	The substances shall not be present in concentrations exceeding 0.1% by weight per homogeneous material used in parts or products[3].
Butyl benzyl phthalate (BBP)**	The substances shall not be present in concentrations exceeding 0.1% by weight per homogeneous material used in parts or products[3].
Dibutyl phthalate (DBP)**	The substances shall not be present in concentrations exceeding 0.1% by weight per homogeneous material used in parts or products[3].
Diisobutyl phthalate (DIBP)**	The substances shall not be present in concentrations exceeding 0.1% by weight per homogeneous material used in parts or products[3].

[1] EU Directive 2002/95/EC and subsequent revision 2011/65/EU on the restrictions of the use of hazardous substances in electrical and electronic equipment (RoHS)

[2] EU Decision 2005/618/EC establishing the maximum concentration values for ROHS. Homogeneous material means a material that cannot be mechanically disjointed into different materials. The term “homogeneous” means “of uniform composition throughout”, for example individual types of plastics, ceramics, glass, metals, alloys, paper, board, resins, plating, coating and finishes. The term “mechanically disjointed” means that the materials can be, in principle, separated by mechanical actions such as for example: unscrewing, cutting, crushing, grinding and abrasive processes.

[3] EU Directive 2015/863 amending Annex II to Directive 2011/65/EU

** Note: Xerox requires the above phthalates to be restricted from any EHS1001 submission made after 25th March 2016.

Other Prohibited Substances

Applies to any material or part provided to Xerox for use in equipment, or in spare parts for use in products, or in accessories, or in packaging.

Table A2. Other Prohibited Substances in Xerox® products, parts, materials, accessories and packaging

For your information – REACH Annex XVII is the list of substances with restrictions under REACH. Restriction is one of the two mechanisms in REACH used to address substances of concern. It is used to regulate against risks to specific populations such as the general public or against more widespread health and/or environment risks.

A restriction bans or places limits on a substance type which poses an unacceptable risk to human health or the environment. A substance does not need to meet the SVHC criteria to be restricted. Additionally, a substance may be listed on the Candidate List as a SVHC but also banned or regulated for specific uses under Annex XVII. Therefore, ensure you are in compliance with Table A2 restrictions below in addition to reporting other REACH uses via EHS1001 Form C

Substance	Qualification	Reference
Asbestos and asbestos materials	Shall not be an ingredient.	• Annex XVII of EU REACH 1907/2006, formerly76/769/EEC*, Marking and Use of Dangerous Substances and amendments (83/478/EEC; 85/610/EEC; 87/217/EEC; 91/659/EEC; 99/77/EEC) • United States: Toxic Substances Control Act (restricts new uses)
Azo Colorants	Shall not be an ingredient if chemical breakdown results in release of aromatic amines listed in Directive 2002/61/EC.	• Annex XVII of EU REACH 1907/2006, formerly76/769/EEC*, Marking and Use of Dangerous Substances and amendments (2002/61/EC; 2003/03/EEC) • Blue Angel EcoLogo
Benzidine-based chemical substances	Shall not be an ingredient.	• EPA SNUR-under the Toxic Substances Control Act (TSCA)
Benzene	Shall not be an ingredient, or present as an impurity in concentrations ≥0.1% by weight.	• Annex XVII of EU REACH 1907/2006, formerly 76/769/EEC, Marketing and Use of Dangerous Substances • Blue Angel EcoLogo
Cadmium and its compounds	In **non-electronic products and accessories**: banned from use as pigment, dye, or stabilizer in concentrations greater than 0.01% by weight. In **packaging**: the sum of the concentration levels of	• Annex XVII of EU REACH1907/2006, formerly 76/769/EEC, Marketing and Use of Dangerous Substances and amendments: (91/338/EEC, 2006/66/EC, 93/86/EEC); 2002/95/EC (EU/RoHS Directive and its amendments) • China Management Measures on EIP Pollution Control

Substance	Qualification	Reference
	incidentally introduced lead, cadmium, mercury and hexavalent chromium must be less than 100 parts per million. In **batteries**: banned in concentrations ≥0.002% by weight	• EU Battery Directive 2006/66/EC • EU Packaging & Packaging Waste Directive 94/62/EC Article 11
Cobalt Dichloride (7646-79-9)	Shall not be an ingredient in concentrations greater than 0.1% by weight in products, parts or packaging.	• Restricted from use since 2010 EHS1001 rev 6.0 • In addition, this is now a EU proposed restricted RoHS substance – OKO Institute study launched 2018.
Dimethyl fumarate (DMF)	Shall not be used above threshold - 0.1 mg/Kg (0.00001 mass%) of the part	REACH Regulation (EC) No.1907/2006 ANNEX XVII
Deca-BDE	Shall not be an ingredient	TSCA Prohibition Section 6(h) (Jan 2021) Note already restricted via EU RoHS
1,1,2-trichloroethane	Shall not be an intentionally added ingredient.	Xerox Requirement – US EPA Safe Water Drinking Act
Fluorinated Greenhouse Gases (PFC, SF6, HFC (6 or fewer carbon atoms)	Shall not be an intentionally added ingredient in non-refillable containers and non-confined direct evaporation systems containing refrigerants. Shall meet all requirements of EC 842/2006.	EC No 842/2006
Formaldehyde	Shall not exceed specified emission limits for composite wood products. Wood packaging materials, including pallets, are exempt from these requirements. See Table A2.1 for specific emission limits.	California Code of Regulations Sections 93120-93120.12, Title 17
Polyvinyl chloride PVC (packaging)	Shall not be used for plastic packaging	• Xerox requirement • Blue Angel requirement
Halogen containing polymers	Restricted from plastic packaging	Blue Angel requirement
Eliminating or reducing BFR/CFR content of printed	The support material of printed circuit boards must not contain PBBs (polybrominated	Blue Angel requirement

Substance	Qualification	Reference
circuit board PCB laminates.	biphenyls), PBDEs (polybrominated diphenyl ethers) or chlorinated paraffins.	
Halogenated Materials (e.g. brominated flame retardants, chlorinated flame retardants, PVC)	Shall not be intentionally added ingredients in external and internal plastic casings, housing or enclosures (including external control elements e.g. Buttons/switches)	• Xerox Requirement • EPEAT & Blue Angel ref clause 3.2.1 Note: Some specific exemptions may be permitted for example, special plastics close to heating and fusing elements. Please review with assigned product safety engineer to gain approval before using an exemption.
Halogenated Flame Retardants	Shall not be used in electronic display enclosures and stands e.g. Computer Monitors, Televisions.	EU Electronic Displays Ecodesign Regulation (2019/2021)
Hexachlorobenzene	Shall not be an intentionally added ingredient.	• Xerox Requirement • Canada – Prohibition of Certain Toxic Substances Regulations, 2005
Hexavalent Chromium and its compounds	In **packaging**: the sum of the concentration levels of incidentally introduced lead, cadmium, mercury and hexavalent chromium must be less than 100 parts per million.	• 2002/95/EC (EU RoHS Directive and its amendments) • China Management Measures on EIP Pollution Control • EU Packaging & Packaging Waste Directive 94/62/EC Article 11
Inorganic Cyanide Compounds	Shall not be an intentionally added ingredients. See Table A2.2 for a specific list of compounds	Xerox Requirement
Lead and its compounds	Banned from use in paints or as a stabilizer in concentrations greater than 0.01% by weight. In **packaging**: the sum of the concentration levels of incidentally introduced lead, cadmium, mercury and hexavalent chromium must be less than 100 parts per million. In **batteries**: requires markings with the chemical symbol if the concentrations ≥0.004% by weight	• Annex XVII of EU REACH1907/2006, formerly 76/769/EEC, Marketing and Use of Dangerous Substances and amendments (86/677/EEC, 2006/66/EC,93/86/EEC); 2000/53/EC 2002/95/EC (EU/RoHS Directive and its amendments) • China Management Measures on EIP Pollution Control • EU Battery Directive 2006/66/EC • EU Packaging & Packaging Waste Directive 94/62/EC Article 11

Substance	Qualification	Reference
Mercury and its compounds	In **packaging**: the sum of the concentration levels of incidentally introduced lead, cadmium, mercury and hexavalent chromium must be less than 100 parts per million. In **batteries**: banned in concentrations ≥0.0005% by weight In **button batteries**: banned in concentrations >2% from October 2015 mercury content limit reduces to 0.0005% by weight for all battery types	• Annex XVII of EU REACH1907/2006, formerly 76/769/EEC, Marketing and Use of Dangerous Substances and amendments (86/677/EEC, 2006/66/EC, 98/101/EEC; 2002/95/EC (EU/RoHS Directive and its amendments) • EU Battery Directive 2006/66/EC – Exemption for Battery Button cells is removed from October 2015 • EU Packaging & Packaging Waste Directive 94/62/EC Article 11 • Products Containing Mercury Regulations SOR2014/254
Ozone Depleting Substances (ODS)	Shall not be ingredients and shall not be used to manufacture components supplied to Xerox.	List of OSD's available at: http://www.epa.gov/ozone/ods.html
Pentacholorophenol	Shall not be an intentionally added ingredient. Prohibited in the treatment of wood.	Annex XVII of EU REACH1907/2006, formerly 76/769/EEC, Marketing and Use of Dangerous Substances with amendment, 1999/51/EC
Perfluorooctane sulfonate (PFOS) and its salts	Textiles or other coated materials. Intentionally added or 1 microgram/m2 of coated material All except textiles or other coated materials. Shall not be intentionally added or 0.1 mass% of the part (as the sum of PFOS)	[EU] Persistent Organic Pollutants (POPs) Regulation (EC) No.850/2004, and EU 2019/1021; [Canada] Prohibition of Certain Toxic Substances Regulations SOR/2012-285 and its amendment; [Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.
Perfluorooctanoic acid (PFOA) and its salts	• Shall not be used in the production of, or placed on the market in: – Another substance, as a constituent; – A mixture – An article • In a concentration equal to or above 25 ppb of	• EU Persistent Organic Pollutants (POPs) Regulation EU 2019/1021 • Canadian Environmental Protection Act, P.C. 2008-974 • Norwegian products regulation Section 2-32

Substance	Qualification	Reference
	PFOA including its salts or 1000 ppb of one or a combination of PFOA-related substances • 0.1 mass% of the part (as the sum of PFOA)	
perfluoroalkyl and polyfluoroalkyl substances (PFAS)	Shall not be used in packaging	US Toxics in Packaging Clearinghouse (TPCH)
Phthalates	Shall not be used in packaging	US Toxics in Packaging Clearinghouse (TPCH)
Phenol,2-(2H-benzotriazol-2-yl)-4,6-bis (1,1-dimethylethyl)-(CAS# 3846-71-7)	Shall not be an intentionally added ingredient.	Japanese law concerning the evaluation of chemical substances (FX harmonized agreement)
Polychlorinated Biphenyls (PCBs)	Shall not be intentionally added ingredients.	[EU] Persistent Organic Pollutants (POPs) Regulation (EC) No.850/2004; [USA] Toxic Substances Control Act (TSCA); [Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.
Polychlorinated Napthalenes (1 or more chlorine atoms)	Shall not be intentionally added ingredients.	[EU] Persistent Organic Pollutants (POPs) Regulation (EC) No.850/2004; [Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.
Polychlorinated terphenyl (PCTs)	Shall not be intentionally added ingredients.	• The law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances (Class 1 chemical substances: Japanese law) • Annex XVII of EU REACH 1907/2006, formerly 76/769/EEC, Marketing and Use of Dangerous Substances with amendment 85/478/EEC
PIP3:1 – phenol Isopropylated, phosphate (3:1)	Shall not be an ingredient	• TSCA Prohibition Section 6(h) (Jan 2021)
Radioactive Substances	Shall not be ingredients.	• U.S. Nuclear Regulatory Commission Title 10 CFR Part 20 (Annex C) • Laws for the Regulation of Nuclear Source Material, Nuclear Fuel Material, and Reactors, 1986 (Japanese law)

Substance	Qualification	Reference
Short Chain Chlorinated paraffins (C10-C13)	Shall not be intentionally added or 0.1 mass% of article	[EU] REACH Regulation (EC) No.1907/2006 Candidate List for Authorization; [EU] Persistent Organic Pollutants (POPs) Regulation (EC) No.850/2004; [Norway] Regulations relating to restrictions on the manufacture, import, export, sale and use of chemicals and other products hazardous to health and the environment (Consumer Product Regulations) FOR-2004-06-01-922; [Switzerland] Act of Reduction of Risks in Treatment of Specified Hazardous Substances, Preparations, and Articles in Switzerland (ChemRRV) Swiss Ordinance 814.81
MCCP – Alkanes C14-17, Chloro (CAS# 85535-85-9)	Restricted from use in plastics casings	UL Eco Logo Note: MCCP currently under ECHA RMOA (Regulatory Management Option Analysis)
Hexabromocyclododecane (HBCDD)	Shall not be intentionally added or 0.01 mass% of article	[EU] REACH Regulation (EC) No.1907/2006 Candidate List for Authorization; [Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; [EU] Persistent Organic Pollutants (POPs) Regulation (EC) No.850/2004
Benzenamine, N-phenyl-, Reaction Products with Styrene and 2,4,4-Trimethylpentene (BNST)	Shall not be intentionally added ingredients for all new designed products from 15 March 2015	Canada – Prohibition of Certain Toxic Substances Regulations, 2012
Organo-Tin Compounds Trisubstituted organostannic compounds (includes tributyl tin (TBT) and triphenyl tin (TPT) Tributyl Tin Oxide (TBTO) Dibutyl Tin (DBT) compounds Dioctyl Tin (DOT) compounds	Shall not be present in the finished articles in concentrations ≥0.1% (REACH Article Definition = an object which during production is given a special shape, surface or design which determines its function to a greater degree than does its chemical composition)	• Commission Decision 2009/425/EC • The law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances (Class 2 chemical substances: Japanese law); Class 1 chemical substances Japanese law and REACH candidate list – TBTO) • Amendment to EU Directive 76/769/EEC, effective 2012. Annex XVII of EU REACH 1907/2006

Table A2.1-State of California Phase 1 and Phase 2 Formaldehyde Emission Standards

State of California Phase 1 and Phase 2 Formaldehyde Emission Standards **for Hardwood Plywood (HWPW), Particleboard (PB), and Medium Density Fiberboard (MDF) - Phase 1 (P1) and Phase 2 (P2) Emission Standards (ppm)**

Effective Date	HWPW-VC	HWPW-CC	PB	MDF	Thin MDF
1-1-2009	P1:0.08	------	P1:0.18	P1:0.21	P1:0.21
7-1-2009	------	P1:0.08	------	------	------
1-1-2010	P2:0.05	------	------	------	------
1-1-2011	------	------	P2:0.09	P2:0.11	------
1-1-2012	------	------	------	------	P2:0.13
7-1-2012	------	P2:0.05	------	------	------

Based on primary test method [ASTM 1333-96 (2002) in parts per million (ppm)

Note: HWPW-VC=veneer core; HWPW-CC=composite core

Table A2.2 – Inorganic Cyanide Compounds

No.	Chemical Name	CAS Number	Formula
1	Hydrogen cyanide	74-90-8	HCN
2	Sodium cyanide	143-33-9	NaCN
3	Potassium cyanide	151-50-8	KCN
4	Silver cyanide	506-64-9	AgCN
5	Cyanogen bromide	506-68-3	BrCN
6	Barium cyanide	542-62-1	$Ba(CN)_2$
7	Copper cyanide	544-92-3	CuCN
8	Nickel cyanide	557-19-7	$Ni(CN)_2$
9	Zinc cyanide	557-21-1	$Zn(CN)_2$
10	Barium tetracyanoplatinate	562-81-2	$BaPt(CN)_4$
11	Dipotassium tetracyanomercurate	591-89-9	$K_2Hg(CN)_4$
12	Calcium cyanide	592-01-8	$Ca(CN)_2$
13	Mercury dicyanide	592-04-1	$Hg(CN)_2$
14	Lead dicyanide	592-05-2	$Pb(CN)_2$
15	Copper cyanide	4367-08-2	$Cu(CN)_2$
16	Potassium dicyanocuprate	13682-73-0	$CuK(CN)_2$
17	Potassium cobaltic cyanide	13963-58-1	$K_3Co(CN)_6$
18	Potassium dicyanoaurate	13967-50-5	$Kau(CN)_2$
19	Sodium copper cyanide	14264-31-4	$Na_2Cu(CN)_3$
20	Copper dicyanide	14763-77-0	$Cu(CN)_2$
21	Potassium nickel cyanide	39049-81-5	$K_2Ni(CN)_3$

Table A3. ROHS Exemption[3]

Note EU RoHS exemptions are subject to periodic EU Commission review for technical justification. If renewal is not issued the exemption will be withdrawn.

Certain RoHS exemptions are only permitted for specific product categories, please review the information provided. Xerox equipment is classified as Category 3.

[3] EU Directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS). These exemptions are consistent with Commission Decision and Corrigenda 2010/571/EU, 2011/65/EU and subsequent revisions.

Note: For the purpose of Article 5(1)(a) of Directive 2002/95/EC & subsequent revision 2011/65/EU, a maximum concentration value of 0.1% by weight in homogeneous materials for lead, mercury, hexavalent chromium, polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE) and of 0.01% by weight in homogeneous materials for cadmium shall be tolerated.

Substance	Exemption #	Exemption Description	Exemption Expiration
Mercury, Lead, Hexavalent Chromium, Cadmium, PBDEs, PBBs	---	• Spare parts for use in electronic products first put on the EU marketplace before 1 July 2006 • Parts for upgrading the functionality or extending the capacity of electronic products first put on the EU marketplace before 1 July 2006 • Re-used electrical and electronic products first put on the EU marketplace before 1 July 2006 • Recovered from all other EEE that was outside the scope of Directive 2002/95/EC and which is placed on the market before 22nd July 2019 and used in EEE placed on the market before 22nd July 2029.	
Mercury	1(a)	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner): **For general lighting purposes <30 W:5 mg**	• Expired on 31 December 2011 – 3,5 mg may be used per burner after 31 December 2011 until 31 December 2012 – 2,5 mg shall be used per burner after 31 December 2012
	1(b)	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner): **For**	• Expired on 31 December 2011

Substance	Exemption #	Exemption Description	Exemption Expiration
		general lighting purposes >=30 W and <50 W: 5 mg	– 3,5 mg may be used per burner after 31 December 2011
Mercury	1(c)	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner): **For general lighting purposes >=50 W and <150 W:5mg**	
	1(d)	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner): **For general lighting purposes >=150 W:15 mg**	
	1(e)	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner): **For general lighting purposes with circular or square structural shape and tube diameter <=17mm**	• No limitation of use until 31 December 2011 – 7 mg may be used per burner after 31 December 2011
	1(f)	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner): **For special purposes: 5 mg**	
	1(g)	For general lighting purposes <30W with a lifetime equal or above 20000h: 3,5 mg	Request for renewal with EU Commission
	2(a)(1)	Mercury in double-capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp): **Tri-band phosphor with normal lifetime and tube diameter <9 mm (e.g. T2): 5mg**	• Expired on 31 December 2011 – 4 mg may be used per lamp after 31 December 2011
	2(a)(2)	Mercury in double-capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp): **Tri-band phosphor with normal lifetime and tube diameter >=9 mm and <=17 mm (e.g. T5): 5 mg**	• Expired on 31 December 2011 – 3 mg may be used per lamp after 31 December 2011
	2(a)(3)	Mercury in double-capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp): Tri-band phosphor with normal lifetime and tube diameter > 17 mm and <=28mm (e.g. T8): 5 mg	• Expired on 31 December 2011 – 3,5 mg may be used per lamp after 31 December 2011

Substance	Exemption #	Exemption Description	Exemption Expiration
Mercury	2(a)(4)	Mercury in double-capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp): **Tri-band phosphor with normal lifetime and tube diameter > 28 mm (e.g. T12): 5 mg**	• Expired on 31 December 2011 – 3,5 mg may be used per lamp after 31 December 2012
	2(a)(5)	Mercury in double-capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp): **Tri-band phosphor with long lifetime (>=25000 h): 8 mg**	• Expired on 31 December 2011 – 5 mg may be used per lamp after 31 December 2011
	2(b)(1)	Mercury in other fluorescent lamps not exceeding (per lamp): **Linear halophosphate lamps with tube >28 mm (e.g. T10 and T12): 10 mg**	Expired on 13 April 2012
	2(b)(2)	Mercury in other fluorescent lamps not exceeding (per lamp): **Non-linear halophosphate lamps (all diameters): 15 mg**	Expired on 13 April 2016
	2(b)(3)	Mercury in other fluorescent lamps not exceeding (per lamp): **Non-linear tri-band phosphor lamps with tube diameter >17 mm (e.g. T9)**	• No limitation of use until 31 December 2011 – 15 mg may be used per lamp after 31 December 2011
	2(b)(4)	Mercury in other fluorescent lamps not exceeding (per lamp): Lamps for other general lighting and special purposes (e.g. induction lamps)	• No limitation of use until 31 December 2011 – 15 mg may be used per lamp after 31 December 2011
	3(a)	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes not exceeding (per lamp): **Short length (<=500 mm)**	• No limitation of use until 31 December 2011 – 3,5 mg may be used per lamp after 31 December 2011
	3(b)	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes not exceeding (per lamp): **Medium length (> 500 mm and <= 1500 mm)**	• No limitation of use until 31 December 2011 – 5 mg may be used per lamp after 31 December 2011

Substance	Exemption #	Exemption Description	Exemption Expiration
Mercury	3(c)	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes not exceeding (per lamp): **Long length (> 1500 mm)**	• No limitation of use until 31 December 2011 – 13 mg may be used per lamp after 31 December 2011
	4(a)	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes not exceeding (per lamp): **Mercury in other low Pressure discharge lamps (per lamp)**	• No limitation of use until 31 December 2011 – 15 mg may be used per lamp after 31 December 2011
	4(b)-I	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index Ra > 60: **P<=155 W**	• No limitation of use until 31 December 2011 • 30 mg may be used per burner after 31 December 2011
	4(b)-II	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index Ra > 60: **155 W <P=405 W**	• No limitation of use until 31 December 2011 • 40 mg may be used per burner after 31 December 2011
	4(b)-III	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index Ra > 60: **P> 405 W**	• No limitation of use until 31 December 2011 • 40 mg may be used per burner after 31 December 2011
	4(c)-I	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner): **P <= 155 W**	• No limitation of use until 31 December 2011 • 25 mg may be used per burner after 31 December 2011
	4(c)-II	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner): **155 W <P <= 405 W**	• No limitation of use until 31 December 2011 • 30 mg may be used per burner after 31 December 2011
	4(c)-III	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner): **P > 405 W**	• No limitation of use until 31 December 2011 • 40 mg may be used per burner after 31 December 2011

Substance	Exemption #	Exemption Description	Exemption Expiration
Mercury	4(d)	Mercury in High Pressure Mercury (vapour) lamps (HPMV)	• Expired on 13 April 2015
	4(e)	Mercury in metal halide lamps (MH)	
	4(f)	Mercury in other discharge lamps for special purposes not specifically mentioned in this Annex	
	4(g)	Mercury in hand crafted luminous discharge tubes used for signs, decretive or architectural and specialist lighting and artwork, where mercury content shall be limited as follows: (a) 20mg per electrode pair + 0.3mg per tube length in cm, but not more than 80mg, for outdoor applications and indoor applications exposed to temperatures below 20 degrees Celsius 15 mg per electrode pair + 0.24mg per tube length in cm, but not more than 80mg, for all other indoor applications	Expired on 31 December 2018
	36	Mercury used as a cathode sputtering inhibitor in DC Plasma displays with a content up to 30mg per display	Expired on 1 July 2010
Lead	5(a)	Lead in glass of cathode ray tubes	Expired July 2016
	5(b)	Lead in glass of fluorescent tubes not exceeding 0.2% by weight	
	6(a)	Lead as an alloying element in steel for machining purposes and in galvanized steel containing up to 0,35% lead by weight	Expires on • 21 July 2021 for categories 8 & 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments • 21 July 2023 for category 8 vitro diagnostic medical devices • 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11

Substance	Exemption #	Exemption Description	Exemption Expiration
Lead	6(a)-I	Lead as an alloying element in steel for machining purposes containing up to 0,35% lead by weight and in batch dip galvanized steel components containing up to 0,2% lead by weight	Expires on 21 July 2021 for categories 1-7 and 10
	6(b)	Lead as an alloying element in aluminum containing up to 0,4 % lead by weight	Expires on • 21 July 2021 for categories 8 & 9 than in vitro diagnostic medical devices and industrial monitoring and control instruments • 21 July 2023 for category 8 vitro diagnostic medical devices • 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11
	6(b)-I	Lead as an alloying element in aluminum containing up to 0,4% lead by weight, provided it stems from lead bearing scrap recycling	Expires on 21 July 2021 for categories 1-7 and 10
	6(b)-II	Lead as an alloying element in aluminum for machining purposes with a lead content up to 0,4 % by weight	Expires on 18 May 2021 for categories 1-7 and 10
	6(c)	Copper alloy containing up to 4% lead by weight	Expires on • 21 July 2021 for categories 1-7 and 10 • 21 July 2023 for categories 8 & 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments • 21 July 2023 for category 8 vitro diagnostic medical devices • 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11
	7(a)	Lead in high melting temperature type solder (i.e. lead-based alloys containing 85% by weight or more lead)	• Applies to categories 1-7 and 10 (except applications covered by point 24 of this annex) and expires on 21 July 2021

Substance	Exemption #	Exemption Description	Exemption Expiration
			• For categories 8 and 9 other than in vitro diagnostic medical devises and industrial monitoring and control instruments expires on 21 July 2021 • For categories 8 in vitro diagnostic medical devices expires on 21 July 2023 • For category 9 industrial monitoring and control instruments • For category 11 expires on 21 July 2024
Lead	7(b)	Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signaling, transmission, and network management for telecommunications	Expires on 21 July 2016 and after date may be used in spare parts for EEE placed on the market before 21 July 2016
	7(c) -I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound	• Applies to categories 1-7 and 10 (except applications covered by point 34) and expires on 21 July 2021 • For categories 8 and 9 other than in vitro diagnostic medical devises and industrial monitoring and control instruments expires on 21July 2021 • For categories 8 in vitro diagnostic medical devices expires on 21 July 2023 • For category 9 industrial monitoring and control instruments • For category 11 expires on 21 July 2024
	7(c)-II	Lead in dielectric ceramic in capacitors for a rated voltage of 125V AC or 250 V DC or higher	Does not apply to applications covered by point 7(C)-I and 7(C)-IV of this annex • 21 July 2021 for categories 1-7 and 10 • 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices

Substance	Exemption #	Exemption Description	Exemption Expiration
			and industrial and control instruments • 21 July 2023 for category 8 in vitro diagnostic medical devices • 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11
Lead	7(c)-III	Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC	Expired on 1 January 2013 and after that date may be used in spare parts for EEE placed on the market before 1 January 2013
	7(c)-IV	Lead in PZT based dielectric ceramic materials for capacitors being part of integrated circuits or discrete semiconductors	Expires on • 21 July 2021for categories 1-7 and 10 • 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial and control instruments • 21 July 2023 for category 8 in vitro diagnostic medical devices • 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11
	9(b)	Lead in bearing shells and bushes for refrigerant-containing compressors for heating, ventilation, air conditioning and refrigeration (HVACR) applications	Applies to categories 8,9 and 11 and expires on • 21 July 2023 for category 8 in vitro diagnostic medical devices • 21 July 2024for category 9 industrial monitoring and control instruments and for category 11 • 21 July 2021 for other subcategories of categories 8 and 9
	9(b)-I	Lead in bearing shells and bushes for refrigerant containing hermetic scroll compressors with a stated electrical power input equal or below 9 kw for heating, ventilation,	Applies to category 1 and expires on 21 July 2019

Substance	Exemption #	Exemption Description	Exemption Expiration
		air conditioning and refrigeration (HVACR) applications	
Lead	11(a)	Lead used in C-press compliant pin connector systems	May be used in spare parts for EEE placed on the market before 24 September 2010
	11(b)	Lead used in other than C-press compliant pin connector systems	Expired on 1 January 2013 and after that date may be used in spare parts for EEE placed on the market before 1 January 2013
	12	Lead as a coating material for the thermal conduction module C-ring	May be used in spare parts for EEE placed on the market before 24 September 2010
	13(a)	Lead in white glasses used for optical applications	
	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.	Expired on 1 January 2011 and after that date may be used in spare parts for EEE placed on the market before 1 January 2011
	15	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages	Applies to categories 8,9 and 11 and expires on: • 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments • 21 July 2023 for category 8 in vitro diagnostic medical devices • 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11
	15(a)	Lead in solders to complete a viable electrical connection between the semiconductor die and carrier within integrated circuit flip chip packages where at least one of the following criteria applies: • A semiconductor technology node of 90 nm or larger • A single die of 300mm_2or larger in any semiconductor technology node	Applies to categories 1 to 7 and 10 and expires on 21 July 2021.

Substance	Exemption #	Exemption Description	Exemption Expiration
		Stacked die packages with die of 300mm$_2$ or larger, or silicon interposers of 300mm$_2$ or larger	
Lead	16	Lead in linear incandescent lamps with silicate coated tubes	Expired on 1 September 2013
	17	Lead halide as radiant agent in high intensity discharge (HID) lamps used for professional reprography applications	Expired July 2016
	18(a)	Lead as activator in the fluorescent powder (1% lead by weight or less) of discharge lamps when used as specialty lamps for diazoprinting reprography, lithography, insect traps, photochemical and curing processes containing phosphors such as SMS ((Sr,Ba)2MgSi2O7:Pb)	Expired on 1 January 2011
	18(b)	Lead as activator in the fluorescent powder (1% lead by weight or less) of discharge lamps used as sun tanning lamps containing phosphors such as BSP (BaSi2O5:Pb)	Expires on: • 21 July 2021 for categories 1-7 and 10 • 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial and control instruments • 21 July 2023 for category 8 in vitro diagnostic medical devices • 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11
	18(b)-I	Lead as activator in the fluorescent powder (1% lead by weight or less) of discharge lamps containing phosphors such as BSP (BaSi2O5:Pb) when used in medical phototherapy equipment.	Applies to categories 5 and 8, excluding applications covered by entry 34 of Annex IV, and expires on 21 July 2021
	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 (ESL)	Expired on 1 June 2011

Substance	Exemption #	Exemption Description	Exemption Expiration
Lead	20	Lead oxide in glass used for bonding front and rear substrates of flat fluorescent lamps used for Liquid Crystal Displays (LCDs)	Expired on 1 June 2011
	23	Lead in finishes of fine pitch components other than connectors with a pitch of 0,65 mm and less	May be used in spare parts for EEE placed on the market before 24 September 2010
	24	Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors	Expires on: • 21 July 2021 for categories 1 and 7 and 10 • 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments • 21 July 2023 for category 8 in vitro diagnostic medical devices • 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11
	25	Lead oxide in surface conduction electron emitter displays (SED) used in structural elements, notably in the seal frit and frit ring	Expired July 2016
	26	Lead oxide in the glass envelope of black light blue lamps	Expired on 1 June 2011
	27	Lead alloys as solder for transducers used in high-powered (designated to operate for several hours at acoustic power levels of 125 dB SPL and above) loudspeakers	Expired on 24 September 2010
	29	Lead bound in crystal glass as defined in Annex I (Categories 1,2,3 and 4) of Council Directive 69/493/EEC [1]	Expires on: • 21 July 2021 for categories 1-7 and 10 • 21 July 2021 for categories 8 and 9 other than vitro diagnostic medical devices and industrial and control instruments • 21 July 2023 for category 8 in vitro diagnostic medical devices • 21 July 2024 for category 9 industrial monitoring and

Substance	Exemption #	Exemption Description	Exemption Expiration
			control instruments and for category 11
Lead	31	Lead in soldering materials in mercury free flat fluorescent lamps (which e.g. are used for liquid crystal displays, design or industrial lighting)	Expired July 2016
	32	Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes	Expires on: • 21 July 2021 for categories 1-7 and 10 • 21 July 2021 for categories 8 and 9 other than vitro diagnostic medical devices and industrial and control instruments • 21 July 2023 for category 8 in vitro diagnostic medical devices • 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11
	33	Lead in solders for the soldering of thin copper wires of 100 µm diameter and less in power transformers	Expired July 2016
	34	Lead in cermet-based trimmer potentiometer elements	Expires on: • 21 July 2021 for categories 1-7 and 10 • 21 July 2021 for categories 8 and 9 other than vitro diagnostic medical devices and industrial and control instruments • 21 July 2023 for category 8 in vitro diagnostic medical devices • 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11
	37	Lead in the plating layer of high voltage diodes on the basis of a zinc borate glass body	Expires on: • 21 July 2021 for categories 1-7 and 10 • 21 July 2021 for categories 8 and 9 other than vitro

Substance	Exemption #	Exemption Description	Exemption Expiration
			diagnostic medical devices and industrial and control instruments • 21 July 2023 for category 8 in vitro diagnostic medical devices • 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11
Lead	41	Lead in solders and termination finishes of electrical and electronic components and finishes of printed circuit boards used in ignition modules and other electronic engine control systems, which for technical reasons must be mounted directly on or in the crankcase or cylinder of hand-held combustion engines (classes SH:1, SH:2, SH:3 of directive 97/68/EC of the European Parliament and of the Council)	Request for renewal with EU Commission
	42	Lead in bearings and bushes of diesel or gaseous fuel powered internal combustion engines applied in no-road professional equipment: • with engine total displacement >=15 liters; or with engine total displacement <15 liters and the engine is designed to operate in applications where the time between signals to start and full load is required to be less than 10 seconds; or regular maintenance is typically performed in a harsh and dirty outdoor environment, such as mining, construction, and agriculture application	Applies to 11, excluding applications covered by entry 6(c) of this annex. Expires on 21 July 2024
Lead and Cadmium	21	Lead and cadmium in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses	Applies to categories 8,9 and 11 and expires on: • 21 July 2021for categories 8 and 9 other than in vitro diagnostic medical devices and industrial and control instruments

Substance	Exemption #	Exemption Description	Exemption Expiration
			• 21 July 2023 for category 8 in vitro diagnostic medical devices • 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11
Lead and Cadmium	21(a)	Cadmium when used in colour printed glass to provide filtering functions, used as a component in lighting applications installed in displays and control panels of EEE	Applies to categories 1 to 7 and 10 except applications covered by entry 21(b) or entry 39 and expires on 21 July 2021
	21(b)	Cadmium in printing inks for the application of enamels on glass, such as borosilicate and soda lime glasses	Applies to categories 1 to 7 and 10 except applications covered by entry 21(a) or entry 39 and expires on 21 July 2021
	21(c)	Lead in printing inks for applications of enamels on other than borosilicate glasses	Applies to categories 1 to 7 and 10 and expires on 21 July 2021
Cadmium	8(b)	Cadmium and its compounds in electrical contacts	Applies to categories 8,9 and 11 and expires on: • 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial and control instruments • 21 July 2023 for category 8 in vitro diagnostic medical devices • 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11
	8(b)-I	Cadmium and its compounds in electrical contacts used in: • Circuit breakers • Thermal Sensing controls • Thermal motor protectors (excluding hermetic thermal motor protectors • AC switches rated at:	Applies to categories 1 to 7 and 10 expires on 21 July 2021

Substance	Exemption #	Exemption Description	Exemption Expiration
		– 6A and more at 250v AC and more, or – 12A and more at 125v AC and more at 18v DC and more, and Switches for use at voltage supply frequency >=200Hz	
Cadmium	13(b)	Cadmium and lead in filter glasses and glasses used for reflectance standards	Applies to categories 8,9 and 11 and expires on: • 21 July 2021for categories 8 and 9 other than in vitro diagnostic medical devices and industrial and control instruments • 21 July 2023 for category 8 in vitro diagnostic medical devices 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11
	13(b)-I	Lead in ion coloured optical filter glass types	Applies to categories 1 to 7 and 10, expires 21 July 2021
	13(b)-II	Cadmium in striking optical filter types: excluding applications falling under point 39 of this annex	Applies to categories 1 to 7 and 10, expires 21 July 2021
	13(b)-III	Cadmium and lead in glazes used for reflectance standards	Applies to categories 1 to 7 and 10, expires 21 July 2021
	30	Cadmium alloys as electrical / mechanical solder joints to electrical conductors located directly on the voice coil in transducers used in high-powered loudspeakers with sound pressure levels of 100 dB (A) and more	Expired July 2016
	38	Cadmium and cadmium oxide in thick film pastes used on aluminum bonded beryllium oxide	Expired July 2016
	39	Cadmium in colour converting II-VI LEDs (< 10 µg Cd per mm2 of light-emitting area) for use in solid state illumination or display systems	Expired on 1 July 2014

Substance	Exemption #	Exemption Description	Exemption Expiration
	40	Cadmium in photo-resistors for analogue opto-couplers applied in professional audio equipment	Expired 31 Dec 2013
Hexavalent chromium	9	Hexavalent chromium as an anticorrosion agent of the carbon steel cooling system in absorption refrigerators up to 0,75% by weight in the cooling solution	

A.3.ii Reportable Substances ("Reportable" if intend to use)

The substances listed on Table B1 have been shown to have the potential to cause adverse health effects, the potential to generate hazardous waste, have supply chain limitations or have unknown health and environment impacts.

If a "reportable" material is considered for use in equipment, spare parts, or accessories it must be reported to Xerox using form EHS-1001B

Additional requirements apply to Xerox® consumables as defined in Xerox EH&S Standard 701 Materials.

Table B1 Xerox Reportable Substances

Xerox Reportable Substances
Antimony and its compounds (Regulated globally including Prop 65)
Arsenic and its compounds (Regulated globally including Prop 65)
Beryllium and its compounds (Regulated globally including Prop 65)
Nickel and its compounds (Regulated globally including Prop 65)
Halogenated Materials (e.g. Brominated Flame Retardants (BFRs), Chlorinated Flame Retardants (CFRs), plasticizers, and Polyvinylchloride (PVC) Note: PBBs, PBDEs, SCCPs and PVC in packaging are prohibited
Selenium and its compounds (US EPA regulated)
Carbon Nanotubes
Perchlorates (US EPA regulated)
Di-isodecyl phthalate (DIDP) (Regulated globally including Prop 65)
Diisononyl phthalate (DINP) (Regulated globally including Prop 65)
Tetrabromobishphenol A (TBBPA) (Regulated globally including Prop 65) Following EU consultant review future restriction likely under RoHS Regulation where substance is used as an additive.
Microplastics (definition – synthetic water insoluble polymer items smaller than 5 mm) and Oxy-degradative plastics (definition – conventional plastics that contain additives which promote the oxidation of the material)
Indium Phosphide (InP) (Regulated globally including Prop 65)
MCCP's Alkanes, 14-17 chlor (Potential future RoHS restriction) Following EU consultant review and recommendation future restriction likely under RoHS Regulation.

REACH Reportable Substances

EU REACH Regulation 1907/2006 designates certain chemicals as “substances of very high concern” (SVHC) Use of these substances in Xerox® parts, accessories or consumables is to be reported to Xerox using form EHS1001C. In some instances, individual substances are already prohibited from use in products or parts supplied to Xerox, as outlined in Tables A1 and A2.

Suppliers should be aware of the European Court of Justice (ECJ) ruling of September 2015 on how the 0.1% threshold in Articles 7(2) and 33 of the REACH Regulation should be interpreted. The original guidance on this aspect of REACH, indicated that the 0.1% threshold for Substances of Very High Concern (SVHC) should be calculated on the basis of the whole article as supplied. However, the ECJ ruled that the individual components retain their status as distinct articles and therefore the 0.1% threshold applies individually to each component.

Additionally, from January 2021 all articles / components containing an SVHC =>0.1% must be notified to the European Chemical Agency (ECHA) SCIP database, including where found in the finished product. Consequently, Xerox require suppliers to submit accurate information to comply with this regulation.

Important Note

The number of substances of very high concern will increase in time as the European Chemical Agency adds substances to its Candidate List. The European Chemicals Agency Candidate List will be updated every six months - in December and June - and therefore it is essential that the suppliers remain informed of the latest position. Information on the latest list of substances of very high concern is available through the European Chemicals Agency website via the link below.
http://echa.europa.eu/candidate-list-table

When completing Xerox EHS-1001 Form C, “Supplier Use of REACH Substances”, Xerox requires its suppliers to be aware of the latest candidate list and to report accordingly. Suppliers are required to inform Xerox of any changes/updates to their previous submissions should the reportable substance content change following future releases of the REACH candidate list.

4. Appendix B – Xerox EHS&S Governance and Policy

The Xerox Environment, Health, Safety, and Sustainability (EHS&S) organization ensures company-wide adherence to the environment, health, safety, and sustainability policy at Xerox. The governance model we use to accomplish this includes clearly defined goals, a single set of worldwide standards, and an audit process that ensures conformance to these requirements. Our EH&S governance and policy, adopted in 1991, forms the foundation of our environmental leadership program.

Xerox EHS&S Policy:

It is the policy of Xerox Corporation to:

- comply with applicable environment, health and safety laws, rules, regulations and Xerox Standards;
- take appropriate measures to protect the environment and health and safety of our employees, customers, suppliers and neighbors from unacceptable risk;
- take appropriate measures to prevent workplace injuries and illnesses;
- provide employees with a safe and healthy work environment;
- assess environment, health, and safety impacts before starting a new activity or project;
- comprehend environment, health, and safety impacts in the design and acquisition of products/services;
- eliminate unacceptable risks from facilities, products, services and processes;
- strive for continual improvement to conserve natural resources, eliminate the use of toxic and hazardous materials, prevent pollution, recover, reuse and recycle;
- address climate change by reducing the carbon footprint of our operations, products and services; and
- require suppliers to adhere to applicable environment, health, and safety laws, rules, regulations and Xerox Standards.

To learn more about Xerox Environment, Health, Safety and Sustainability and our progress toward our commitments, see our Corporate Social Responsibility (CSR) Report.

5. Appendix C – EHS 1001 Compliance Forms

See separate attachments for these Compliance Forms:

- Form EHS-1001A Xerox Supplier Certification for Prohibited or Banned Substances
- Form EHS-1001B Xerox Supplier Report of “Reportable” Substance Use
- Form EHS-1001C Xerox Supplier Certification of REACH Reportable Substances

Forms can also be found at:
https://www.xerox.com/downloads/usa/en/e/EHS_1001_Compliance_Forms.xls

6. Revision History

Date	Section	Change
October 2004, Revision 2.1	VIA.4 Appendix B2	VIA.4 - Consumables removed from scope of standard Appendix B2 - Table B3 changed to “reportable substances” and list reduced to relevant metals and compounds in hazardous waste legislation (all organic compounds removed, bismuth added)
March 2005, revision 2.2	Table B2. Appendix C Table 1 Footnote, A.3.i Table 3	Table B2 - Updated table with exemptions approved by EU Technical Advisory Committee on December 10, 2005 Appendix C - Revision to form EHS 1001A, B and C to clarify their intent and use Table 1 - This table was split into Table 1A to reflect RoHS requirements only and Table 1B for other prohibited substances. This change was made to avoid confusion. The requirements remain the same. Footnote, A.3.i - Revised to include the EU’s definition of “homogenous substance” Table 3 - Nickel, Tin and Zinc compounds reinstated for hazardous waste purposes.
November 2005, revision 2.3	Table 1-A Table 2 Table B3	Table 1-A - Table and footnote revised for consistency with Decision 2005/618/EC and Commission guidance dated May 2005. Table 2 - Table revised to align the numbering system with that in the Annex to Directive 2002/95/EC, to include new listings from Commission guidance dated May 2005, and to adopt new exemptions in Decisions 2005/717/EC and 2005/747/EC. Footnote revised. Table B3 - Table revised to include radioactive substances, and flame retardants other than PBBs and PBDE’s
January 2006, revision 3.0	Table 1-B Table B3	Table 1-A - Table revised to be consistent with Joint Industry Guide. Table B3 - Table revised to be consistent with Joint Industry Guide.
December 2006, revision 3.1	Table 2	Table revised to adopt new exemptions in Decisions 2006/310/EC, 2006/690/EC, 2006/691/EC and 2006/692/EC.
August 2007 revision 3.2	1.3 2.5 A.2 Table 1-B Table 2	Added EMS responsibility Added packaging requirements Added definition of batteries Table revised to include ban on use of cadmium in portable batteries in Directive 2006/66/EC, and updated to harmonized list. Table revised to remove exemption [2B] on chromium passivisation, which became obsolete on 1 July 2007

Date	Section	Change
June 6, 2008 revision 4.0	Tables 1A, 1B, 2, 3 and Forms EHS-1001A and EHS-1001B	Table 1A – Specification that deca-BDE is prohibited was added under Polybrominated diphenylether (PBDEs) Table 1B - Hexachlorobenzene and Perfluorooctane Sulfonates were added Table 1B – Requirements for batteries was added under Cadmium, Lead and Mercury Table 1B – References were added Table 2 RoHS Exemptions – exemption 9a for decaBDE in polymetric applications was removed Table B3 Reportable Substances – added the following: Bisphenol-A, Indium, DEHP Table B3 Reportable Substances – Polybrominated Flame retardants now includes HBCDD and TBBPA Table B3 Reportable Substances – added specification that use of PVC in packaging is prohibited Table B3 Reportable Substances – Changed “Nickel compound -not including the metallic element” to Nickel and its compounds Form EHS-1001A – Replaced column A.3.ii for reporting weight of component batteries, and removed exemption 9a Form EHS-1001B-Added columns for Bisphenol-A, Indium, DEHP Form EHS-1001B – Changed text in Polybrominated Flame retardants to include HBCDD and TBBPA
December 1, 2008 revision 4.1	Table 1B Table B3	Table 1B – replaced 91/157/EEC with 2006/66/EC Table 1B – Specified marking requirement for batteries containing lead Tables 1B and 1C – Added specifications for formaldehyde emissions Table 1D – Added table of inorganic cyanide compounds Table B3 – replaced Diethylhexyl phthalates (DEHP) with Phthalates (including DEHP, BBP, DBP)
March 31, 2009 revision 5.0	Table 1B Table B3 Table B4 and EHS1001C	Appendix A.2 – added a definition for engineered nanomaterials Table A1 – Added references to Blue Angel Table A2 – Added Phenol,2-(2H-benzotriazol-2-yl)-4,6-bis (1,1-dimethylethyl), removed PBDO. Table B1 – Deleted HBCDD, DEHP, BBP and DBP as these are now included in Table C1. Risk assessment data has resulted in the delisting of TBBPA. Added DINP, DIDP, DNOP, TCEP and engineered nanomaterials. Table C1 – Added REACH substances of very high concern and associated EHS-1001C reporting form. Editorial changes to table numbering scheme
June 15, 2009 revision 5.0	Table A3	Added EU RoHS exemptions 30-38 Updated to version 5, June 2009
March 29, 2010 revision 6.0	Table A2 Table B1 Table C1	Table A2 – Added cobalt dichloride, PFOA, fluorinated GHGs and select tin compounds Table A2 – Added threshold concentration for reporting and clarification regarding justification for listed substances.

Date	Section	Change
		Table A3 – Added exemption #39 for cadmium. Section 2.3 – Added clarification to the scope of the standard. Table B1 – Deleted TCEP which is now included in Table C1; Deleted engineered nanomaterials and indium; added more specificity with respect to halogenated materials. Table C1 – Added additional REACH substances of very high concern and date of inclusion. Modified Appendix C (excel file) in alignment with Tables B1 and C1
September 30, 2010 revision 6.1	Section 2.4 Table A2	Section 1.3 – Added expectation that suppliers provide complete forms, partial data submissions are not acceptable. Added socially responsible supply chain due diligence expectation. Section 2.4 – Changed threshold to 25g Table A2 – Removed 1,2,2-trichloroethane Table A2 - Added halogenated materials in external enclosures. Table B1 – Removed bismuth and BPA. Table C1 – Added additional REACH svhc candidate substances.
October 11, 2010 revision 7.0	Table A3	Table A3 updated to reflect EU exemption review – Commission Decision and Corrigenda 2010/571/EU of 24th Sept 2010
December 2012 revision 8.0	Section 1.3 Table A2 Table B1	Addition of SEC 1502 requirements for compliance with Conflict minerals Table A2 – Added Phthalates BBP, DEHP, DBP, DIBP Table A2 – Added Flame Retardant HBCDD Table A2 – Added Dimethyl fumarate (DMF) Table A2 – Added 1,2,2-trichloroethane Table A3 – Added RoHS Exemptions 7 (c)-IV and 40 Table B1 – Added Carbon Nanotubes Table B1 – Added Perchlorates Table B1 – Removed DINP, DIDP, DNOP Added reference -RoHS Revision 2011/65/EU
December 2014 Rev 8.1	Table A2 Table A3	Table A2 – revision to mercury threshold in Button Batteries from Oct 2015 Table A2 – Removal of Denmark restriction following infringement proceedings raised by EU Commission Table A2 – Added Benzidine and BNST to Prohibited Substances List Table B1 – Addition of DINP, DIDP, California Prop 65 requirement Table A3 – Revisions to RoHS exemption list and expiry dates Appendix B – Revised to reflect current EHS&S policy
March 2016 Rev 8.2	Table A1 and EHS1001 Form A Table A2	Table A1 – Revision to cover additional EU RoHS phthalate restrictions – DEHP, BBP, DBP, DIBP Table A2 – Removed DEHP, BBP, DBP and DIBP as now covered via RoHS Table A1

Date	Section	Change
	Table A3 Table B1 EHS1001 Form C	Table A2 – PFOA added reference to Norwegian products regulation Table A2 – Added reference to Canadian Mercury Regulation SOR 2014/254 Table A3 – Note added regarding current RoHS exemption review process Form C – revised to reflect ECHA SVHC candidate list as of December 2015 REACH – Information added regarding European Court of Justice ruling and reporting requirements Table B1 – Added Bisphenol A (BPA)
March 2017 rev 8.3	EHS 1001 Specification 2.4 EHS1001 Table A2 EHS1001 Table B1 EHS1001 Form B EHS1001 Form C	Section 2.4 – ISO 11469 – In accordance with ISO 11469, manufacturers must use the symbols and terms given in ISO 1043:2016 Table A2 – Halogenated materials – revised to include control elements e.g. button/switches Table A2 – PFOA updated permitted thresholds. Reference draft amendment REACH Annex XVII regulation 1907/2006 Table B1 – Bisphenol A – removed (Now included on REACH form C) Form C – Revised to reflect ECHA SVHC candidate list as of January 2017
May 2018 Rev 8.4	EHS1001 Table A2 EHS1001 Table B1	Changed description to Organo-Tin Compounds previously reference was Tin Compounds Additional text added to Table A2 to explain REACH restriction and reporting requirements Tetrabromobishphenol (TBBPA) – Prop 65 and potential future RoHS regulated substance Indium Phosphide (InP) – Potential future RoHS regulated substance MCCP's Alkanes, 14-17 chlor – Potential future RoHS regulated substance Microplastics (definition – synthetic water insoluble polymer items smaller than 5mm) REACH registry of intentions for restriction. Oxy-degradative plastics (definition – conventional plastics that contain additives which promote the oxidation of the material) REACH registry of intentions for restriction Note: other proposed RoHS substances for evaluation are – Diantimony trioxide (already covered in Form B by antimony and its compounds) Beryllium and its compounds – (already covered in Form B) Nickel sulphate and nickel sulfamate (already covered in Form B) Cobalt dichloride and cobalt sulphate (already restricted

Date	Section	Change
		in Table A2 and EHS1001 form C) Form C – revised to reflect ECHA SVHC candidate list as of December 2017
October 2018 Rev 8.4.1	EHS1001 Form C	Revision made to EHS1001 Form C only to cover new SVHC's. No revision to EHS1001 standard
April 2019 Rev 8.5	EHS1001 Table A3 EHS1001 Form C	RoHS Exemptions aligned with EU Commission renewals Form C – revised to reflect ECHA SVHC candidate list as of December 2017
Sept 2019 Rev 8.5.1	EHS1001 Form C EHS1001 Table A2 EHS1001 Table A2 EHS1001 Table A2	Revision made to EHS1001 Form C to cover new SVHC's. Table A2 - Halogen containing polymers restricted from plastic packaging Table A2 - MCPP restricted form use in plastic casings Updated new or amended regulation references – e.g. EU POPS Regulation (no changes to threshold or reporting requirements)
March 2020 Rev 8.5.2	EHS1001 Form C EHS1001 Table A2	Revision made to EHS1001 Form C to cover new REACH SVHC's. Perfluorooctanoic acid (PFOA) & its salts & Perfluorooctane sulfonate (PFOS) and its salts – Restrictions confirmed and aligned with amended EU Persistent Organic Pollutants (POPs) Regulation EU 2019/1021.
September 2020 Rev 8.5.3	EHS1001 Form C Supplier Memo EHS1001 Table A2 EHS1001 Table B1 REACH Reportable Substance	Revision made to EHS1001 Form C to cover latest REACH SVHC's. Information provided to suppliers on the RoHS exemption renewal process and provides a link to EU website for suppliers to track exemptions of interest. Table A2 updated with restrictions related to substances used in support material of printed circuit boards - Blue Angel requirement Table B1 – Additional information provided on the likely restriction of TBBPA and MCCP related to EU RoHS revision Information provided on requirements for REACH reportable substances to be added to the ECHA SCIP database from January 2021

Date	Section	Change
March 2021 Rev 8.5.4	EHS1001 Form C	Revision made to EHS1001 Form C to cover latest REACH SVHC's.
	EHS1001 Table A2	PIP3:1 – phenol, Isopropylated, phosphate (3:1) Deca-BDE – TSCA restriction (note already restricted by EU RoHS) PFAS and Phthalates restricted from packaging Halogenated Flame Retardants restrictions in enclosures