Product Environmental Specification

Supplier Requirements for Reportable and Restricted Chemicals

Specification Number: 1040000
Revision: 19

ENGINEERING CHANGE: 6147297
DATE: 18 November 2025
OWNERS: Product Sustainability Team
Sustainability@lexmark.com

Lexmark Product Environmental Specification v19

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Revision History

Rev	Revision Description	Approved	Date
0.6	Initial Release	Tonya Jackson	21June 2004
1.0	Changed owner; updated definitions, added plastics content	Matthew Russell	14 Aug 2005
1.1	Updated with new regulations	Craig Bertelsen	23 Oct 2006
1.2	Renumbered sections, tables; added Appendix B-permitted exemptions; added Brominated Flame Retardants statement; updated mercury reporting, packaging and battery sections.	Johnny Sears	24 Oct 2007
1.3	Edited section1.2, added declaration of conformity requirement. Updated sections 1.4, 2.4; Updates to 2.7.2 and 2.7.3. Updated 2.9 to include references to REACH substances; moved requirements into Table 6; added statement on the use of desiccants. Revised 3.1; created 3.1.1 Revised 3.3 - Updated Table 3. Previous Table 6 – JIG substances removed and replaced with a new Table 4 – Reportable Substances. Previous Table 4 on Batteries has been renumbered to Table 5. Table 6 packaging material restrictions created. Expanded Appendix A Appendix B revised for clarification.	Johnny Sears	7 Oct 2009
1.4	Appendix B removed exemption 14 which expired as of 1 Jan 2011	Brian David Cook	27 April 2011
1.5	Updated to restrict Phthalates DINP, DIDP and DNOP that were previously reportable Removed references to potential restrictions due to the RoHS recast that did not come about.	Brian David Cook	7 May 2012
1.6	Corrected Table 5 - Batteries threshold limits for Cadmium and Mercury. Added reference to PCR content code required per the Manufacturing Execution System Tracking Bar Code Labels spec no. 3078962 Updated references to RoHS to state 2011/65/EU	Brian David Cook	24 July 2013
8	Revised file name to reflect EC level. Added reference to Directive (EU) 2015/863 of March 2015 amending Annex II to Directive 2011/65/EU regarding the list of restricted substances: DEHP, BBP, DBP, DIBP. Added Taiwan and Turkey to list of countries with chemical inventories Added exemption expiration date for Mercury in Button Cell Batteries (1September 2015)	Brian David Cook	10 Sept 2015
9	Made Commission Delegated Directive (EU) 2015/863 of March 2015 amending Annex II to Directive 2011/65/EU as regards the list of restricted substances mandatory as of 22 July 2018 to insure compliance for 22 July 2019 enforcement date: DEHP, BBP, DBP, DIBP (this phthalate was moved from the reported table 4 to restricted table 3); Updated allowed exemptions to remove 5a; Removed mercury exemption for button cell batteries that expired 1 October 2015	Brian David Cook	13 Dec 2016
10	Updated sections 1.1, 1.2, 2.6, 2.8, 2.9 - added Packaging Spec. Enovia #, 3.1 and 3.3 - added Packaging Certification Form Enovia #. Updated Table 1, Table 3 - new restrictions: alkanes medium chain, Antimony, BNST, BPA, Diarsenic pentaoxide and trioxide, DMF, galvanic coatings on plastic, PFOA, DEP, PAHs- 2 additional, red phosphorus, Selenium, TCP and TCEP. Updated Table 4 – new reportable: Aluminosilicate Refractory Ceramic Fibers. Updated Table 5 Batteries – lowered threshold limits, Table 6, A7 and Appendix B. Added new Table 7	Brian David Cook, Susan Butler	2 Feb 2018

Rev	Revision Description	Approved	Date
11	Updated Table 3 – new restrictions: CAS # 71-43-2, 1076-43-3, 84777-06-0, brominated and chlorinated flame retardants (added PCR limit), 50-00-0 restriction change, 36437-37-3, 25973-55-1, 3864-99-1, 7789-06-2 Updated Table 4 – new reportable: CAS # 552-30-7, 68648-93-1, 68515-51-5, 7646-79-9, 10026-24-1, 10124-43-3, 13560-89-9, 135821-74-8, 135821-03-3, 1937-37-7, 573-58-0, 12008-41-2, 107-15-3, 15571-58-1, 27107-89-7, 22398-80-7, 96-45-7, lead and its compounds, 335-76-2, 3830-45-3, 3108-42-7, PFHxS, 375-95-1, 21049-39-8, 4149-60-4, 84-61-7, 84-66-2, 26761-40-0, 68515-49-1, 28553-12-0, 68515-48-0, 117-84-0, 1120-71-4, 540-97-6, 541-02-6, 556-67-2, 61788-32-7, 25155-23-1	Susan Butler, Chris Saunders	01 Nov 2018
12	Updated 1.1 Purpose, 1.2 Scope, 3.1 Material Composition Reporting, Table 2 chemical registration requirements, Added to Table 3 - new regulations for azo, BPA, lead, phthalates, PBDEs, new restrictions for formaldehyde, PBDEs, Added to Table 4 - boric acid, disodium tetraborate, PFCAs, tetraboron disodium heptaoxide hydrate, TDCPP, TNPP w 4-NP, Table 6 chlorine, Table 7 US OSHA 29 CFR 1910.1048, Table A1 azo colorant mixture, updated RoHS Directive from 2011/65/EU with EU Directive 2015/863 amending Annex II, Appendix B RoHS exemptions for lead – new 6(a)-I, 6(b)-I,II	Susan Butler, David DeVore	01 Nov 2019
13	**Section 3.1** – Added material reporting requirements **Table 3** -Added TIO2, DINP (from Table 4), updated flame retardants **Table 4** - Added DBDPE, TPP, Phthalic anhydride, 1,3-butadiene, PFBS and salts, Diisohexyl phthalate, UV-907 and Photoinitiator 369 Updated PFOAs, Removed TCP **Table 6** - Packaging -Added PFAS, PFOA, Phthalates **Table 7** - New Prohibited Solvents China VOCs standards: GB 38507-2020, GB 38508-2020, GB 33372-2020 **Table 8** - Key Regulations added 16B, 17B, 17C EU POPS, Remove Ecolabel, replaced w CEPA ECL, added GB 38507 **Appendix B**- 6(c) 4% lead, removed 5(b), 7(c)-IV, 15, deadline updated- 6(b), 6(b)-II, 7(c)-II	Susan Butler, Christina Cullins, David DeVore	30 Oct 2020
14	**Table 3 Restricted Substances –** Added Phenol, Isopropylated Phosphate (3:1) (PIP (3:1)) CAS 68937-41-7 with exemptions	Susan Butler, Christina Cullins, David DeVore	04 March 2021
15	**Table 2 - Chemical Registration Requirements** 1. Add UK Reach **Table 3 - Restricted Substances** 1. Added Alkanes (C14-C17), Chloro, medium chain chlorinated paraffins (MCCPs) 2. Dechlorane Plus CAS 13560-89-9; 135821-74-8; 135821-03-3 3. Decabromo diphenyl ethane (DBDPE) CAS 84852-53-9 4. PFOA-related compounds and new Table A10 5. PFOS new Table A11 6. PFCAs moved from Reportable to Restricted 7. 2,4,6-Tri-tert-butylphenol (2,4,6-TTBP), CAS 732-26-3 8. Pentachlorothiophenol (PCTP), CAS 133-49-3 **Table 4 - Reportable Substances** 1. Undecafluorohexanoic acid (PFHxA) CAS# 307-24-4, its salts and related substances 2. Mineral Oils, Mineral oil-based inks 3. Precious metals and rare earth reporting per French Circular Economy Article 13.1 as follows: a. Rare earths: scandium, yttrium, lanthanum, cerium, praseodymium, neodymium, promethium, samarium, europium, gadolinium,	Susan Butler, Christina Cullins, Troy Foster	13 Nov 2021

	terbium, dysprosium, holmium, erbium, thulium, ytterbium, lutetium b. Precious metals - gold, silver, platinum, palladium 4. Antimony Trioxide CAS # 1309-64-4 5. 1,4-dioxane CAS # 123-91-1 6. Bis(2-(2-methoxy)ethyl)ether CAS # 143-24-8 7. Bisphenol B; 4,4'-(1-methylpropylidene)bisphenol CAS # 77-40-7 8. Brominated Alcohol: 2,2-bis(bromomethyl)propane1,3-diol (BMP) CAS # 3296-90-0 9. Brominated Alcohol: 2,2-dimethylpropan-1-ol, tribromo derivative/3-bromo-2,2-bis(bromomethyl)-1-propanol (TBNPA) CAS # 1522-92-5 & 36483-57-5 10. Brominated Alcohol: 2,3-dibromo-1-propanol (2,3-DBPA) CAS # 96-13-9 11. Diisooctyl phthalate CAS # CAS 27554-26-3 12. Phenol, alkylation products (mainly in para position) with C12-rich branched or linear alkyl chains from oligomerisation, covering any individual isomers and/or combinations thereof (PDDP) 13. Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) with ≥0.1% w/w 4-heptylphenol, branched and linear (4-Hbl) 14. Resorcinol; 1,3-benzenediol CAS # 108-46-3 15. Silver and its compounds 16. Cholecalaciferol **Table 5 - Batteries** – threshold limit update **Table 8 – Key Laws, Regulations and References** 1. (32) French Circular Economy Bill – Law No. 2020-105 of Feb 10, 2020 **Table A10 – Perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds** **Table A11 – Perfluorooctane sulfonates (PFOS)**		
16	**Table 3 Restricted Substances –** 1. Brominated and chlorinated flame retardants New York reporting requirement 2. Fluorinated greenhouse gases (HFC, PFC, SF6) EPA SNAP 3. Added HCBD, hexachlorobutadiene, CAS 87-68-3 4. Added **(PFHxA)** - Undecafluorohexanoic acid (PFHxA) CAS# 307-24-4, its salts and related substances 5. Added **(PFHxS) -** Perfluorohexane-1-sulphonic acid and its salts 6. Added Phthalate: Bis(2-methoxyethyl) phthalate CAS# 117-82-8 7. Added Phthalate: Dihexyl phthalate CAS# 84-75-3 8. Added Phthalate: Diisopentyl phthalate CAS# 605-50-5 9. Added Phthalate: n-pentyl-isopentylphthalate CAS# 776297-69-9 10. Clarification on PAH – restriction applies to exterior surfaces **Table 4 Reportable Substances –** 1. Added (±)-1,7,7- trimethyl-3-[(4-methylphenyl)methylene]bicyclo[2.2.1]heptan-2-one (Tradename Parsol 5000)	**Susan Butler, Christina Cullins, Troy Foster**	**28 Oct 2022**

	2. Added 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol [with ≥ 0.1% w/w of Michler's ketone (CAS 561-41-1) 3. Added 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol CAS# 119-47-1 4. N-(hydroxymethyl)acrylamide CAS # 924-42-5 5. Added a general PFAS reportable column and associated regulations 6. Added S-(tricyclo(5,2,1,0.2,6)deca-3-en-8(or 9)-yl O-(isopropyl or isobutyl or 2-ethylhexyl) phosphorodithioate CAS# 255881-94-8 7. tris(2-methoxyethoxy)vinylsilane CAS# - 1067-53-4 **Table 8 Key Laws, Regulations and References** 1. (33) UK REACH 2. (34) UK RoHS Regulation 2020 (SI 2020/1647) 3. (35) Maine DEP – report intentionally added PFAS by CAS number and quantity beginning January 1, 2023 4. (36) EPA's SNAP Program (Significant New Alternatives Policy) hydrofluorocarbons (HFCs) 5. (37) New York State regulation reporting the presence of organohalogen flame retardants in enclosures or stands of their electronic displays 6. (38) Addition of link to known PFAS Substances as defined by the EPA **Table 6 Packaging** 1. New introductory paragraph 2. Halogenated plastics – clarification and new regulations 3. PFAS – clarification and new regulations 4. Ortho-Phthalates – Addition of DINP CAS# 285553-12-0 5. Inclusion of Formaldehyde and their compounds to the table 6. Inclusion of Mineral Oil and associated regulations to the table 7. Inclusion of EU REACH Authorization and Restricted lists		
17	**Section 3.1** 1. Addition of FMD (Full material disclosure) requirements in Section 3.1.2 2. Addition of IEC 62474 requirements language in Section 3.1.3 3. Add Table A12 - Restricted Lead Compounds 4. Add Table A13 - Reportable Lead Compounds 5. Add Table A14 - Restricted Dibutyltin (DBT) and Dioctyltin (DOT) Compounds 6. Added Table A15 - Restricted Cadmium and its Compounds **Table 2 Chemical Registration Requirements -** 1. Updated Australia chemical inventory name (AICS to AIIC) **Table 3 Restricted Substances -** 1. Added regulatory reference "10" IEC 62474 to chemicals that are covered 2. Added Dipentyl phthalate (DPP), CAS# 131-18-0 3. Added N,N-dimethylformamide (DMF), CAS# 68-12-2 4. Added 4-Nonylphenol, branched and linear, ethoxylated 5. Removed (PFHxA) - Undecafluorohexanoic acid CAS# 307-24-4 6. Add (PFHxS) CAS# 355-46-4 7. Updated Formaldehyde CAS# 50-00-0 8. Added exemption for UV-328 **Table 4 Reportable Substances -** 1. Added regulatory reference "10" IEC 62474 to chemicals that are covered	**Susan Butler, Christina Cullins, Troy Foster**	**26 Oct 2023**

	2. Added 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP), CAS# 71888-89-6 3. Added 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters, CAS# 141-63-9 4. Added 1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear, CAS# 68515-50-4 5. Added 1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme), CAS# 112-49-2 6. Added 2,2-bis(4'-hydroxyphenyl)-4-methylpentane, CAS# 6807-17-6 7. Added Diboron trioxide (B2O3), CAS# 1303-86-2 8. Added Dibutylbis(pentane-2,4-dionato-O,O')tin, CAS# 22673-19-4 9. Added 1,2-diethoxyethane, CAS# 629-14-1 10. Added 1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME), CAS# 110-71-4 11. Added Hexahydromethylphthalic anhydride, CAS# 48122-14-1, 57110-29-9, 25550-51-0, 19438-60-9 12. Added Orthoboric acid, sodium salt, CAS# 25747-83-5, 22454-04-2, 14312-40-4, 1333-73-9, 13840-56-7, 14890-53-0 13. Added Pentazinc chromate octahydroxide, CAS# 49663-84-5 14. Added Potassium hydroxyoctaoxodizincatedichromate, CAS# 11103-86-9 15. Added Silicic acid (H2Si2O5), barium salt (1:1), lead-doped, CAS# 68784-75-8 16. Added Sulfurous acid, lead salt, dibasic, CAS# 62229-08-7 17. Added 4-(1,1,3,3-tetramethylbutyl)phenol, CAS# 140-66-9 18. Added Trilead dioxide phosphonate, CAS# 12141-20-7 19. Added Perfluoroheptanoic acid and its salts, CAS# 375-85-9 and its salts 20. Added Melamine, CAS# 108-78-1 21. Added Isobutyl 4-hydroxybenzoate, CAS# 4247-02-3 22. Added Bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof 23. Added Barium diboron tetraoxide, CAS# 13701-59-2 24. Added Reaction mass of 2,2,3,3,5,5,6,6-octafluoro-4-(1,1,1,2,3,3,3-heptafluoropropan-2-yl)morpholine and 2,2,3,3,5,5,6,6-octafluoro-4-(heptafluoropropyl)morpholine (FC-770) 25. Added 1,1'-[ethane-1,2-diylbisoxy]bis[2,4,6-tribromobenzene], CAS# 37853-59-1 26. Added bis(4-chlorophenyl) sulphone, CAS# 80-07-9 27. Added diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide, CAS# 75980-60-8 28. Added 4,4'-sulphonyldiphenol, CAS# 80-09-1 29. Added Phthalate: Diundecyl phthalate (DuDP), CAS# 3648-20-2 **Table 8 Tri-substituted Organostannic Compounds** 1. Removed California SB 509 and Added WEEE reference for #6 2. Added Customer Requirement #39 **Table 9 Tri-substituted Organostannic Compounds** 1. Added Bis(tributyltin) oxide (TBTO), CAS# 56-35-9		

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18	**Section 2.5 -** Added 2.5.1 Ozone depleting chemicals, 2.5.2 Fluorinated greenhouse gases (GHG) **Section 2.7.2 –** Updated Product Design and Labeling Requirements for Batteries **Section 3.1.1 -** Added ChemSherpa as Full Material Disclosure system **Section 3.4** – Added Fluorinated Greenhouse Gas Declaration **Table 3 Restricted Substances -** 1. Added DOTE and MOTE (previously was in Table 4) , (DOTE CAS # 15571-58-1); (MOTE CAS # 27107-89-7) 2. Added pentachlorophenol, CAS # 87-86-5 3. Table 3: Remove DBDPE 4. Added China RoHS #29 to phthalates: DEHP CAS# 117-81-7, BBP CAS # 85-68-7, DBP CAS# 84-74-2, DIBP CAS# 84-69-5 (added #18 to DIBP) 5. Added 2A regulation to 2,4,6-tri-tert-butylphenol CAS# 732-26-3 6. Changed Fluorinated greenhouse gases, Threshold Limit from "Not detectable. (Also not permitted for use in the manufacturing process)" to "Not intentionally added to the product. Manufacturing processes shall meet requirements of Regulation (EC) 842/2006" **Table 4 Reportable Substances –** 1. Added Bumetrizole (UV-326), CAS # 3896-11-5 2. Added 2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol (UV-329), CAS # 3147-75-9 3. Added Nonylphenol-PEG, CAS # 9016-45-9 4. Added 2-(dimethylamino)-2-[(4-methylphenyl) methyl]-1-[4-(morpholin-4-yl) phenyl]butan-1-one, CAS # 119344-86-4 5. Added Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol, CAS # 700-960-7 6. Added Bis(α,α-dimethylbenzyl) peroxide, CAS Number: 80-43-3 7. Added Acrylonitrile, CAS# 107-13-1 8. Added Acetaldehyde, CAS# 75-07-0 9. Added Benzeneamine, CAS# 62-53-3 10. Added Vinyl Chloride, CAS# 75-01-4 11. Added Critical Elements #18 EPEAT **Table 6 Packaging Materials – Restricted and Reportable** 1. Change PPM from 1000 to 500 to align with EPEAT for Ortho-Phthalates (1,2-Benzenedicarboxylic acid esters) CAS# 85-68-7; 117-81-7; 84-74-2; 84-69-5; 285553-12-0 **Table 8 Key Laws, Regulations and References** 1. Added Singapore Environmental Protection and Management Act 1999 (Amendment of Second Schedule) Order 2022, and #40 to relevant Tables 3 and 4 2.	**John Damm, Susan Butler**	**3 Oct 2024**

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19	**Revision 19 Updates** **Section 2.5 –** Additions to 2.5.1 **Section 3.4 –** Updated EPEAT criteria link **Table 3 Restricted Substances –** 1. Added 17 EU POPs to UV-328 2. Updated Dibutyltin threshold column 3. Added EU POPs to Dechlorane Plus, lowered to 1 ppm 4. Added EU POPs to PFCAs 5. Added 40 Singapore Env Prot Management Act to PFCAs 6. Added 40 to Alkanes-medium chain 7. Added 40 to Mercury 8. Updated threshold, added 42 Australia IChEM PFHxS 9. Added N,N-dimethylacetamide CAS # 127-19-5 10. Updated PFHxS level to 25 ppm, added #42 IChEM 11. Added dimethyl propylphosphonate CAS #18755-43-6 12. Added bisphenol AF/BPAF CAS # 1478-61-1 **Table 4 Reportable Substances** 1. Added Triphenyl phosphate (EC Number: 204-112-2, CAS Number: 115-86-6) 2. Added 6-[(C10-C13)-alkyl-(branched, unsaturated)-2,5-dioxopyrrolidin-1-yl]hexanoic acid CAS Number: 2156592-54-8 3. Added O,O,O-triphenyl phosphorothioate 597-82-0 4. Added Palmitic acid CAS 57-10-3 5. Added Natural Rubber CAS 9006-04-6 6. Added Zinc Stearate CAS# 557-05-1 7. Added Octamethyltrisiloxane CAS 107-51-7 8. Added Perfluamine CAS 338-83-0 9. Added Reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives CAS 192268-65-8 10. 1,1,1,3,5,5,5-heptamethyl-3-[(trimethylsilyl)oxy]trisiloxane CAS# 17928-28-8 11. Added Decamethyltetrasiloxane CAS # 141-62-8 12. Updated DBDPE CAS # 84852-53-9 **Table 6 Packaging** 1. Updated to Ortho-Phthalates 2. Updated Mineral Oil threshold **Table 8 Key Laws, Regulations and References** 1. Replaced 17 a,b,c with 17 EU POPs as amended 2. Added EU Deforestation #41 **Appendix B** 1. Added RoHS exemption web site	**John Damm, Susan Butler**	**18 November 2025**

1. Introduction

1.1 Objective

The Lexmark Product Environmental Specification 1040000 defines and communicates the minimum environmental requirements for its suppliers for the design, manufacture and marketing of Lexmark parts and products. These requirements are based on global regulatory obligations, international treaties and conventions, and certain market demands, all of which are subject to change. Be sure to use the most current version of the Lexmark Product Environmental Specification located at https://www.lexmark.com/env-spec or in Lexmark's Enovia Product Lifecycle Management (PLM) system as specification number 1040000 and refer to the actual regulations for the details of compliance.

It should be noted that this specification is intended to be an inclusive document that covers a range of applications. If a regulation cited within this document does not apply to the particular part or product being supplied to Lexmark, Lexmark will not unnecessarily require its suppliers to adhere to such regulations. For instance, if the part or product being supplied does not include a battery, the supplier does not need to meet the requirements described in section 2.7 - Batteries.

1.2 Scope

All materials, components, parts, assemblies and packaging supplied to Lexmark and/or designed by Lexmark must meet this specification, including all the tables and links referenced herein. This includes materials that are used on a product, such as coatings, grease, paints, pastes, and adhesives and materials that are shipped with products, such as toner, ink, lubricants, cleaners, wet wipes, and desiccants.

This specification also applies to materials or chemicals used to manufacture components, parts and assemblies supplied for use in Lexmark products or packaging. See section **2.5** for restrictions on the use of certain chemicals in the manufacturing process. Each supplier must agree to the specification and conformance to global regulations by filling out the SDoC at a minimum of once per calendar year to comply.

On-site inspection and examination on supplier's premises may also be required to comply with the specification. Failure to comply may result in corrective actions at the supplier's cost. Without limiting any other rights and remedies available to it under applicable law, Lexmark reserves the right to cancel any outstanding order, refuse any shipments and otherwise terminate existing agreements if the supplier fails to comply with any requirement of the specification or if Lexmark reasonably believes the supplier has failed to do so.

1.3 Document Maintenance, Control and Future Updates

This specification was originated by Lexmark Product Environmental Programs, Department 740 New Circle Road, Lexington, Kentucky 40550. The specification will be updated as new requirements or corrections are identified; however, the supplier is required to be familiar with and comply with all applicable laws, rules and regulations as these are updated. In the event of a conflict between this specification and any Lexmark part specification or material/chemical specification, the supplier must immediately notify its Lexmark purchasing representative. Questions and comments should be directed to productsustainability@lexmark.com.

1.4 Definitions

Assembly is an integrated set of components. A populated printed circuit board, fuser, or power supply are all examples of an assembly because individually functioning components can be removed.

CAS # is the Chemical Abstract System number assigned to a chemical for unique identification. The CAS numbering system is an international convention. For example, the CAS# for lead is 7439-92-1.

Component is a combination of homogeneous materials that have been formed into a single manufactured mechanical or electrical part. Examples of components may include microprocessors, plastic enclosures, coin cell batteries, capacitors, etc. Assemblies and semi-finished goods are not themselves considered components but are made up of components.

Customer Shippable Packaging Materials are packaging materials (see separate definition below) that are intended to arrive at the end user customer. This does not include packaging that is used to transport parts from manufacturing location to manufacturing location.

External Cables are cables and cords that are likely to be accessible to the consumer during ordinary use.

Homogeneous Material is a unit that cannot be mechanically disjointed into different materials. The term "Homogeneous" means having uniform composition throughout. Examples of homogeneous materials are

individual types of plastics, ceramics, glass, metals, alloys, resins, and coatings. Mechanically disjointed means that the materials can, in principle, be separated by mechanical actions such as unscrewing, cutting, crushing, grinding, and abrasive processes.

IEC 62474 Declarable and Reference Substance Lists is the Material Declaration for Products of and for the Electrotechnical Industry. IEC 62474 provides an International Standard for the exchange of material composition data and requirements for material declarations. https://std.iec.ch/iec62474

Intentionally Added or Intentionally Introduced shall mean that a substance is deliberately utilized in the production of a material or part.

Materials are made up of one or more substances (e.g., an alloy is a material, which in turn is made up of several substances).

Mechanical plastic parts are plastic parts that do not internally carry an electrical signal such as housings, brackets, bezels, latches, etc. that form the basic structure of the product and/or have mechanical functions. Plastic parts such as fans, motors, connectors, printer fuser assemblies, etc. are not considered "mechanical plastic parts" in the context of this specification.

Not detectable means that a substance in a part or homogeneous material is not detected at the lowest detectable limit using standard analytical methods.

Packaging is material used to protect products from damage due to storage or transportation (e.g., boxes, shipping supplies, cushioning & foam, bags, shrink wrap, tapes, adhesives). This includes any inks and dyes used to label packages.

Parts include fabricated materials, components, devices and assemblies.

Post-consumer recycled content means that at least a portion of the material content comes from post-consumer materials where post-consumer materials are materials generated by consumer, business, or institutional sources that have served their intended use or completed their lifecycle and would be destined for disposal had they not been diverted from the waste stream for reuse or recycling.

Products are stand-alone, final assemblies that Lexmark markets under its own brand including complete machines supplied by an original equipment manufacturer (OEM) to Lexmark for sale under the Lexmark brand.

REACH SVHC candidate list substances are substances identified as Substances of Very High Concern according to the process defined in Article 59 of EU REACH Regulation (EC) No. 1907/2006. The most recent list of REACH SVHCs can be found at https://echa.europa.eu/candidate-list-table
Please note that the SVHC candidate list is expected to be updated every 6 months (most likely in December and June of each year) so suppliers are advised to monitor this list accordingly.

RoHS substances are those substances regulated by European Union Directive 2011/65/EU as amended by 2015/863/EU, "on the Restriction of the Use of Certain Hazardous Substances (RoHS) in Electrical and Electronic Equipment." These substances include mercury, lead, cadmium, hexavalent chromium, polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs), as well as phthalates BBP, DIBP, DBP and DEHP.

Substances are chemical elements and their compounds (e.g. lead is a chemical element and lead oxide is a compound). Registry numbers of the Chemical Abstracts System of the American Chemical Society (CAS #) and/or European Chemical ("EC" numbers) are attributed to all chemical elements and most of their compounds and should be used for identification purposes.

Threshold limit is the concentration level which defines the limit (equal to or) above which the presence of a substance or material in a product or part is prohibited and/or must be declared.

2. Specification Requirements

2.1 Product Chemical Content Labeling & Hazard Communication

Lexmark products are distributed internationally and must meet the health, safety, and environmental regulations of all countries to which they are supplied. In order to comply with these regulations, a safety data sheet (SDS) must be provided or created for all products in accordance with the regulations that exist in the countries where the product will be imported, processed, used, or distributed. Products must also be labeled according to the regulations that exist in the countries where the product will be imported, processed, used, or distributed.

Table 1 lists some of the regulations that may apply to the chemical labeling and SDS creation for products. Note that some of the regulations may apply to chemicals as raw materials or replenished supplies, but the same chemicals may be covered differently if contained in articles, the definition of which is specific to each regulation.

2.2 Chemical Registration Requirements

The following requirements apply to the chemical components of all materials, parts, supplies and products containing chemical substances. These include, but are not limited to, bulk chemicals, inks, toners, inks and toners contained in computer printer cartridges, and other supply chemicals. Excluded are those products that can be described as articles, the definition of which is specific to each country.

All chemical substances, materials or mixtures must either comply with all applicable rules, regulations or orders under the US Toxic Substances Control Act (TSCA), 15 U.S.C.A. Section 2601*et seq.*, or must not be subject to TSCA.

Table 2 describes all the countries that have chemical registration requirements and the inventory listing that is required for each. All chemicals must be listed on the chemical inventory for each country. Any deviations from this must be identified along with alternative compliance documentation.

2.3 Biocide Registration

Any chemicals used as biocides in Lexmark materials, parts, and products must be registered in compliance with any applicable worldwide biocide registration regulations. This includes US Federal Insecticide, Fungicide and Rodenticide Act (FIFRA 40CFR 158), EU Biocidal Products Directive 98/8/EC, and the Canadian Pest Control Products Act R.C.S. 1985, c.P-9.

2.4 Product Content Restrictions

The use of certain substances in materials, parts, or products may limit the ability to market products entirely or in certain countries or jurisdictions. In order to comply with global regulations such as the EU Directive 2011/65/EU as amended by EC/2015/863 on the Restriction of the Use of Certain Hazardous Substances (RoHS 2) in Electrical and Electronic Equipment, Lexmark prohibits the use of some substances in its products. **Table 3** lists those chemicals and substances that must not be present in Lexmark materials, parts, or products above the provided threshold limits. Note that some substances are restricted only for specific applications, which are indicated in the table along with the applicable threshold limit.

2.5 Manufacturing Chemical Restrictions

The use of certain substances is restricted in the manufacture of Lexmark materials, parts, or products to comply with international agreements, regulatory measures and to reduce the environmental impact. The following substances are prohibited from use in the manufacturing process or require documentation to demonstrate the reduction of environmental impacts associated with the manufacturing process.

2.5.1 Ozone depleting chemicals

Supplier shall not incorporate an Ozone Depleting Substance (ODS) in its manufacture or processing of a product, part, or commodity provided to Lexmark. Class I & Class II Chlorofluorocarbons (CFCs) and Hydrochlorofluorocarbons (HCFCs) must not be used by suppliers or any subcontracted suppliers in the manufacture of Lexmark materials, parts, and products. Table A3 and Table A4 of Appendix A, attached hereto and incorporated herein by reference, provide an expanded list of these chemicals. A list of ODS is also available at http://www.epa.gov/ozone/ods.html.

2.5.2 Fluorinated greenhouse gases (GHG)

Hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6) are substances subject to controlled use due to a high global warming potential (GWP). Suppliers of electronics who use fluorinated GHGs must demonstrate that processes have been implemented at their manufacturing facilities to achieve a reduction of at least 90% of fluorinated GHG emissions resulting from the production of electronic parts.

Suppliers will be required to confirm one or more of the following approaches were used to achieve a minimum reduction of 90% fluorinated greenhouse gas emissions.

- Installation (new or retrofitted), operation and maintenance of emission control technology designed specifically to recycle, remove, or destroy F-GHG emissions.
- Utilization of a gas(es) with GWP of 2300 or less.
- Use of nitrogen trifluoride (NF3) remote plasma clean for cleaning chemical vapor deposition (CVD) chambers (in combination with an above method).

2.6 Product Chemical Emissions

Parts and products covered by this specification shall comply with the requirements of and shall not emit toxic or environmentally detrimental chemicals during normal use conditions which exceed the threshold values or requirements listed in **U.S. Code of Federal Regulation 29 CFR 1910** (tables Z-1, Z-2, Z-3) or the California State Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) lifetime exposure limits (see https://oehha.ca.gov/proposition-65).

2.7 Batteries

2.7.1 Battery Content Restrictions

All batteries contained in parts or products covered by this specification shall meet the material content restrictions listed in **Table 5**.

2.7.2 Product Design and Labeling Requirements for Batteries

All batteries contained in parts or products covered by this specification shall be designed for easy identification and removal. Battery type, weight and location must be disclosed to Lexmark. Batteries shall be labeled with appropriate labels including but not limited to hazard warnings, battery type/chemistry, and the manufacturer/brand name. The battery marking shall be located on or adjacent to each battery. Documentation that demonstrates compliance to regulations, such as a Safety Data Sheet [SDS] or Product Data Sheet [PDS], must be supplied upon request.

Battery suppliers are required to provide information to Lexmark so it can update labels, cartons, and/or online documents as necessary. Such as

- Manufacturer name and trade name
- Battery category, identification, and serial
- Manufacturing Location
- Manufacturing Date
- Weight
- Capacity
- Chemistry
- Hazardous substances
- Usable extinguishing agent
- Critical raw materials >0.1%
- Non-rechargeable label if necessary
- Postal address including a contact point and email address

2.7.3 Battery Type Requirements

Battery type is limited to lithium metal or lithium-ion button/coin cell battery type with the following lithium content:

- Each lithium metal cell must contain no more than 1.0 gram of lithium.
- Each lithium-ion cell must have an equivalent lithium content of no more than 1.5 grams.

Batteries must be of a type that meet all applicable design, manufacture, marking, testing, and other battery specific requirements necessary to avoid classification as a dangerous good for purposes of transport for all modes of transportation, as defined in the following standards when shipped installed in, or with equipment:

- United States, "Hazardous Materials Regulations," Title 49, Code of Federal Regulations, US Department of Transportation (DOT) (Including Special Provision 188)
- International Civil Aviation Organization (ICAO), "Technical Instructions for the Safe Transport of Dangerous Goods by Air"
- International Air Transport Association (IATA), "Dangerous Goods Regulations"
- International Carriage of Dangerous Goods by Road (ADR)
- International Maritime Dangerous Goods Code (IMDG)

Each lithium battery must also be of a type that has been demonstrated to meet the lithium metal or lithium-ion battery testing requirements in the most recent version of the UN Manual of Tests and Criteria, Part III, Subsection 38.3 (including any revisions, amendments, addenda, or other changes to those testing requirements that are effective as of the date on which the lithium battery is supplied to Lexmark).

2.8 Plastic Selection, Content and Parts Coding

This section deals with the regulatory and recycling labeling requirements for plastics used in Lexmark products. This section does not apply to plastics used in packaging. Lexmark follows the ISO 11469:2016 coding scheme in which ">" and "<" (greater than and less than) symbols are used to indicate recyclability. An acronym is used between these symbols to identify plastic. The proper acronyms are defined in ISO Standards 1043-1, 1043-2, 1043-3 and 1043-4.

Here are some examples of the proper recycling code for several resins:

ABS	>ABS<
ABS/polycarbonate alloy, organic phosphorus flame retardant	>PC+ABS-FR(40)<
Nylon 6/6 w/ 30% glass fiber	>PA66-GF30<
polycarbonate/PBT blend with 10% glass fiber	>PC+PBT-GF10<
PPE/PS, 25% glass fiber, 15% mica, organic phosphorus flame ret.	>PPE+PS-(GF25+PS15)FR(40)<

Lexmark requires plastic parts > 25g made from thermoplastic resins to have this code unless the parts:

- Only have functional surface area, such as: rollers, cams, bearings, compound gears, sliders, detack fingers, etc.
- Are made from co-injection molded parts or two-shot molded parts of incompatible resins that cannot be separated
- Have Insert and outsert molded parts where the dissimilar materials cannot be separated
- Have non-functional area insufficient to hold marking of legible size

Parts manufactured from thermoset resin or vulcanized rubber should not be coded.

Recycling codes should be permanent, in a visible area, but should not interfere with the function or the aesthetics of the part. These marks may be made by injection molding or stamping. Lexmark prohibits the use of labels or printing inks for the purpose of these markings. In addition to marking the parts, part drawings and/or CAD drawing files of plastic parts must include a note or statement that the part is recyclable, and the resin code of the material specified for that part. Here is an example: "THIS PART IS CONSIDERED RECYCLABLE AND MUST BE CODED ACCORDING TO STANDARD ISO 11469 WITH THE FOLLOWING INFORMATION: > *(insert proper ISO recycling code here)* <"

2.9 Packaging Materials Content

Substances that are banned or restricted for use in Lexmark customer shippable packaging materials are listed in **Table 6**. Due to regulatory requirements such as the EU REACH Regulation, the table also lists categories of substances that must be reported to Lexmark when used. These substances are indicated as reportable in the table and while not strictly banned, suppliers are encouraged to avoid their use in Lexmark packaging materials. All other listed substances that do not have the reportable designation are prohibited.
In addition to the restrictions listed in **Table 6**, the use of desiccants in Lexmark customer shippable packaging must be approved in advance by Lexmark packaging engineering.

Packaging requirements can be found in the latest revision of the Lexmark packaging specification entitled, *Lexmark Supplier and Interplant Packaging and Handling Specification*, which is available from your Lexmark purchasing representative or refer to specification number 3085125 in Lexmark's Enovia PLM system.

3. Documentation Requirements

3.1 Material Composition Reporting Requirements

Lexmark requires suppliers, at a minimum, to declare the presence of each substance listed in both **Table 3 (Restricted Substances)** and **Table 4 (Reportable Substances)**. For each substance that is present in a component at concentrations above the given thresholds, the weight of that substance with units of measurement shall be reported.

Table 4 materials must be reported to Lexmark due to regulations, such as the EU REACH. Each Supplier must report this information to Lexmark using the Lexmark Supplier Declaration of Conformance Form (Lexmark Specification LXK0009363). This form is available at https://www.lexmark.com/sdoc or from your Lexmark purchasing representative or engineering contact. For questions contact ProductSustainability@Lexmark.com.

3.1.1 Full Material Disclosure (FMD)

Lexmark has instituted a Full Material Disclosure (FMD) system that requests suppliers to provide the chemical composition of components and products, designed or manufactured for Lexmark. Implementation of FMD requests suppliers to disclose the complete, accurate, and precise identity of the parts and materials by part number. Collection and declaration of FMD data is by completion and submittal of the Lexmark SDoc (supplier declaration of conformity, PN LXK0009363, https://www.lexmark.com/sdoc) and/or is by submission of chemSHERPA© files to Lexmark (see supplier FAQs for supplier instruction).

Lexmark may audit supplier materials, substances, and resins against the FMD data submission to ensure conformity with the requirements. Lexmark may also conduct analyses to ensure submissions accurately reflect the composition of the parts and materials provided. The analyses will include a comparison of FMD data to supplier-provided test reports and may include comparison to Lexmark test reports.

3.1.2 IEC 62474 Declarable and Reference Substance Lists

Lexmark requires each supplier to disclose the use of substances contained in the IEC 62474 Declarable Substance List (DSL) and Reference Substance List (RSL) through completion of Table 4 in the SDoC (https://www.lexmark.com/sdoc). The DSL contains the reportable applications, reporting threshold and reporting requirement of the IEC 62474 listed materials. The RSL provides a list of substances that are included within a substance group. The RSL is informative and not intended to be exhaustive, unless indicated in the notes. IEC 62474 main site: https://std.iec.ch/iec62474

3.2 Status Change Notification

If the material, part, or product being manufactured for or marketed by Lexmark does not meet one or more of the requirements in this specification, the supplier must immediately notify its Lexmark purchasing representative in writing. This also applies if the supplier, subcontractor or manufacturing partner makes changes in its operations that will cause a material, part or product to no longer comply with this specification.

Suppliers shall implement all Engineering Changes in conformance with this specification. Any engineering changes that include the addition of a new component or a change in material will obligate the supplier to provide the appropriate material composition documentation as described in section 3.1 above for the new component or material. In addition, Lexmark may require samples of the new component or material for testing.

Any deviation from the requirements of this specification must be approved in writing through an alternative compliance plan. All alternative compliance plans must be approved by a cross-functional working group comprising Supply Base Management, Corporate Sustainability, Engineering, and the supplier, when applicable.

3.3 Packaging Material Documentation

Certification by the supplier is required for all packaging materials purchased by Lexmark for resale of products, parts, and supplies to Lexmark customers. Each supplier of such customer shippable packaging materials must complete and sign all sections of the Lexmark Packaging Certification Form to declare conformity to the requirements of section 2.9 above. This form is available from your Lexmark purchasing representative or refer to specification number 3089570 in Lexmark's Enovia PLM system.

3.4 Fluorinated Greenhouse Gas Declaration

If fluorinated greenhouse gases are used in the manufacturing of parts provided to Lexmark, the supplier will be required to fill out the Declaration for Conformity for EPEAT criterion 4.5.1 and 4.52. Examples of electronics using fluorinated gases in the manufacturing process include flat panel displays and semiconductors.

4. Tables

Table 1 Chemical Hazard Communication Requirements

Country / Regulation	Requirement
Australia / Work Health and Safety Regulations 2011, as amended, Preparation of Safety Data Sheets for Hazardous Chemicals, Code of Practice, Safe Work Australia	Safety Data Sheet (SDS) and Appropriate Label
Canada / Hazardous Products Act, Workplace Hazardous Materials Information System (WHMIS 2015)	SDS and Appropriate Label
European Union /Regulation (EC) No. 1272/2008 [CLP], Safety Data Sheets Regulation (EC) No. 1907/2006 (REACH), Annex II	SDS and Appropriate Label
Japan / Poisonous and Deleterious Substance Control Law, Industrial Safety & Health Law, Dangerous Goods Fire Service Law	SDS and Appropriate Label, possible registration of importer and volumes
Korea / Toxic Chemicals Control Act, Industrial Safety & Health Act	SDS and Appropriate Label, Ministry of Environment registration
Taiwan/Toxic Substances Control Act (Article 15), Labor Safety & Health Act (Article 7)	SDS and Appropriate Label
Switzerland / AS 1972 441/442 Swiss Declaration for Commercial Products	Declaration filed
U.S. / OSHA Hazard Communication 29CFR1910.1200	SDS and Appropriate Label

Table 2 Chemical Registration Requirements

Country / Registration Inventory	Requirement
Australia / Australian Inventory of Industrial Chemical (AIIC)	Listing on the AIIC
Canada / Canadian Domestic Substances List (DSL) or Non-Domestic Substance List (NDSL)	Listing on the DSL or NDSL
China / Inventory of Existing Chemical Substances in China (IECSC)[1]	Listing on the IECSC
Japan / Existing and New Chemical Substances (ENCS) List[1]	Listing on the ENCS List
Korea / Existing Chemicals List (ECL)[2]	Listing on the ECL
Philippines / Philippine Inventory of Chemicals and Chemical Substances (PICCS)[3]	Listing on the PICCS
Switzerland / Chemical Inventory	Listing on the EINECS or Swiss inventory
UK Reach	Listing or Expected Registration Date under UK REACH
U.S. / Toxic Substances Control Act (TSCA) Inventory[4]	Listing on the TSCA Inventory
Turkey / Inventory and Control of Chemicals (CICR)	Listing on the CICR
Taiwan / Taiwan Chemical Substance Inventory (TCSI)	Listing on the TCSI
European Union / REACH[5]	Listing or Expected Registration Date under EU REACH

If chemicals are exempt from reporting, for example due to low volume, polymer, etc., Lexmark must be notified.

[1] Products must not contain any chemicals listed on the Chinese or Japanese restricted, regulated, and/or hazardous chemicals lists.

[2] Products must not contain any chemicals listed on the Korean Toxic Chemicals List, Observational Chemicals List, Restricted Toxic Chemicals List or Prohibited Chemicals List under the Korean Toxic Chemicals Control Act.

[3] Products must not contain any chemicals listed on the Philippine Priority Chemical List (PCL), Chemical Control Order (CCO) list, regulated by the Philippine Drug Enforcement Agency (PDEA) or regulated by the Philippine National Police (PNP).

[4] Products must not contain any chemicals subject to TSCA Section 4, 5 or 6 Test Rules or are subject to any TSCA Section 12 or 13 Import/Export restrictions or reporting requirements.

[5] All chemicals are either registered or exempt under EU/UK REACH. Lexmark must be notified that the supplier is acting as the only representative under EU/UK REACH for their customer's imports of these chemicals. For annual EU/UK volume reporting, Lexmark must be notified what information is required as well as when and to whom this information needs to be reported.

Table 3 Restricted Substances

Substances listed in this table are prohibited from use in parts or products supplied to Lexmark unless otherwise noted within the table. Any use of these substances (including unrestricted or exempted applications) must be declared to Lexmark according to section 3.1. Threshold limits are in parts per million (ppm) calculated as the mg of substance/kg of homogenous material. For restricted chemicals and compounds listed in this table, view the complete material details for all individual substances in the IEC 62474 Declarable and Reference Substance Lists (https://std.iec.ch/iec62474). Note that regulatory references and examples of use are not intended to be exhaustive lists and may not cover all regulations and uses that pertain to the substance.

Restricted Chemical/ Substance	Threshold Limit (ppm) with relevant application	Key Regulations/ References	Examples of Use
Alkanes (C10-C13), Chloro, short chain chlorinated paraffins CAS# 85535-84-8	1000	2A, 9, 10, 17, 18	Cutting fluids, plasticizer (PVC), paints, coatings, flame retardant in plastics, rubbers
Alkanes (C14-C17), Chloro, medium chain chlorinated paraffins	1000	2A, 10, 39, 40	Plasticizers and flame retardants in PVC
Asbestos and its compounds	Not Intentionally added	2C, 10	Insulator, pigment, fillers
Azo dyes/colorants (see Table A1)	30 (Restriction applies only to textiles & leather articles)	2C, 4, 10	Pigments, dyes, colorants
Benzene CAS # 71-43-2, 1076-43-3	Not detectable (Also not permitted for use in the manufacturing process)	2C, 31	Plastics, lubricants and dyes
Benzenamine N-phenyl, reaction products with styrene and 2,4,4-trimethylpentene (BNST) CAS # 68921-45-9	Not detectable	19	Additive in oil, lubricants
1,2-Benzenedicarboxylic acid, dipentyl ester, branched and linear CAS # 84777-06-0	1000	2B, 10	Plasticisers, lubricants, adhesive, coatings
Bisphenol A; BPA; 4,4'-isopropylidenediphenol, CAS # 80-05-7	1000	2C, 7, 10	Manufacture polycarbonate plastic
Bisphenol AF/BPAF CAS # 1476-61-1	1000	39	Seals, gaskets, coatings
Brominated flame retardants (other than PBBs, PBDEs, HBCDD andDBDPE)) in mechanical plastic parts Chlorinated flame retardants in mechanical parts (other than Dechlorane Plus)	1000 3000 (in postconsumer recycled plastic resin) (Restriction does not apply to fuser assemblies, heat exhaust parts, electromechanical assemblies such as fans & motors, wires & cables, circuit board: laminates, components)	4, 10, 18, 37	Flame rated plastics, casings of imaging equipment, foams & adhesives

Restricted Chemical/ Substance	Threshold Limit (ppm) with relevant application	Key Regulations/ References	Examples of Use
Cadmium and its compounds – See Table A15	5 (batteries)	10, 21, 22, 25	Colorants, dyes, pigments, paints, plastic stabilizers, coatings/plating, batteries
	100 (all parts other than batteries)	10, 1A, 2C, 29	
Chromium VI and its compounds	1000	1A, 2C, 10, 23, 29	Colorants, pigments, anti-corrosion surface treatment, coatings, plating, stabilizers
Dechlorane Plus CAS # 13560-89-9; 135821-74-8; 135821-03-3	1	2A, 10, 17, 40	Flame retardant, adhesives, sealants
Diarsenic pentaoxide CAS #13030-28-2	1000	2C, 10	Paints, glass, electronic components
Diarsenic trioxide CAS # 1327-53-3	1000	2C, 10	Paints, glass, electronic components
Dibutyltin (DBT) compounds See Table A14	1000 by weight of tin in the article or part	2C, 10	Stabilizer for PVC, curing catalyst for silicone resin and urethane resin
N,N-dimethylacetamide CAS # 127-19-5	3000	2C	Coatings, electrical wire varnishes
Dimethyl Fumarate (DMF) CAS # 624-49-7	0.1	2C	Biocide
Dimethyl propylphosphonate CAS # 18755-43-6	1000	39	Flame retardant, used in polyurethane foam
Dioctyltin (DOT) compounds - Dioctyltin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety – See Table A14	1000 (Restriction applies only to textiles and leather articles and two-component room temperature vulcanization, or RTV-2, molding kits)	2C, 10	Stabilizer for PVC, curing catalyst for silicone resin and urethane resin
DOTE and MOTE reaction mass (DOTE CAS # 15571-58-1); (MOTE CAS # 27107-89-7)	1000	2A, 10	Stabilizer in plastic
Fluorinated greenhouse gases (HFC, PFC, SF6) See Table A2	Not intentionally added to the product. Manufacturing processes shall meet requirements of Regulation (EC) 842/2006	5, 10, 36	Refrigerants, blowing agents, extinguishing agents, cleaning agents, insulating media, caustic gas
Formaldehyde (released from an article) CAS # 50-00-0	0.062 mg/m^3 for furniture and wood-based articles	2C	Disinfectant and preservative Note: Test methods listed in Appendix 14 of Commission Regulation (EU) 2023/1464 of 14July2023
	0.080 mg/m^3 for all other articles	2C, 10	

Restricted Chemical/ Substance	Threshold Limit (ppm) with relevant application	Key Regulations/ References	Examples of Use
Galvanic coatings on plastic components	Not detectable	4	Casing parts, modules for colorants
Hexabromocyclododecane (HBCDD) and all major diastereoisomers CAS #25637-99-4, #3194-55-6	1000	2C	Flame retardant; mainly used for expanded polystyrene and some types of fiber
HCBD, hexachlorobutadiene CAS 87-68-3	1000	16	byproduct during the production of chlorinated solvents
Lead and its compounds See Table A12	15 (batteries)	10, 21, 22, 25	Colorants, dyes, pigments, paints or surface coatings, free-machining steel, metal alloys, plastic stabilizers, plastic resins, ceramics, solders, electronic components, glass
	90 (non-electronic parts)	2C, 10	
	300 (cable jacketing of external cables)	7, 10	
	1000 (All other parts than listed above) see Appendix B for EU RoHS exemptions	1A, 2A, 2B, 7, 10, 29	
Mercury and its compounds	1 (batteries)	10, 21, 22, 25, 40	Relays, switches, electrical contacts, lamps and bulbs, resin stabilizer
	Not detectable (non-electronic parts)	10, 23	
	1000 (All other parts than listed above)	1A, 2C, 10, 29, 40	
Nickel and its compounds (external parts and chassis only)	1000 (Restriction applies only to external chassis or case parts likely to result in prolonged skin exposure)	2C, 10	surface treatment, decorative plating
N,N-dimethylformamide (DMF) CAS# 68-12-2	1000 (Restriction applies only to external chassis or case parts likely to result in prolonged skin exposure)	2B, 10	Used as electrolyte in electrolytic capacitors rated for low temperature use to -55C
4-Nonylphenol, branched and linear, ethoxylated CAS#s 26027-38-3, 7311-27-5, 20427-84-3, 34166-38-6, 27942-27-4, 14409-72-4, 104-35-8, 37205-87-1, 127087-87-0, 156609-10-8	1000	2B, 10, 40	Nonylphenol ethoxylates are used in paints, lacquers and varnishes in concentrations up to 10% w/w of the mixture.
Ozone Depleting Substances (Class I & II CFCs & HCFCs) (see Table A3 & Table A4)	Not detectable (Also not permitted for use in the manufacturing process)	8, 10, 15	Cleaning agents, foam plastics, solvents

Restricted Chemical/ Substance	Threshold Limit (ppm) with relevant application	Key Regulations/ References	Examples of Use
Pentachlorophenol and its salts and esters CAS # 87-86-5	1000	10, 17, 39	Biocide, disinfectant, wood preservative
Pentachlorothiophenol (PCTP), CAS 133-49-3	Not detectable	16B	Rubber
(PFHxS) - Perfluorohexane-1-sulphonic acid and its salts, including CAS# 355-46-4	25 ppb	2A, 10, 17, 35, 38, 42	Water or stain repellent in textile, leather
Perfluorooctanoic Acid (**PFOA**); Pentadecafluorooctanoic acid; PFOA and its salts, CAS # 335-67-1, 3825-26-1, 335-95-5, 2395-00-8, 335-93-3	0.025	2A, 10, 17, 19, 32, 35, 38	Semiconductor manufacturing, insulator for wires, planar etching, films, plastics, coatings
Perfluorooctanoic Acid (**PFOA**) related compounds, See Table A10	1 ppm, not intentionally added		
Perfluorooctane sulfonates (PFOS) and salts, C8F17SO2X (X=OH, metal salt, halide, amide, and other derivatives including polymers) See Table A11	Not intentionally added (Restriction does not apply to photoresists or anti-reflective coatings for photolithography processes, photographic coatings applied to films, papers or plates)	9, 10, 17, 19, 35, 38	
Perfluoro carboxylic acid and related compounds (PFCAs) includes perfluorononan-1-oic acid (C9-PFNA) CAS 375-95-1; nonadeca fluorodecanoic acid (C10-PFDA) CAS 335-76-2; PFUnDA (C11-PFCA) CAS 2058-94-8, PFDoDA (C12-PFCA) CAS 307-55-1, PFTrDA (C13-PFCA) CAS 72629-94-8, PFTDA (C14-PFCA) CAS 376-06-7	25 ppb for C9-C14 PFCAs and their salts, 260 ppb for C9-C14 PFCA-related substances.	2C, 10, 17, 35, 38, 40	
Phenolic Benzotriazoles: 2-benzotriazol-2-yl-4,6-di-tert-butyl phenol (**UV-320**) CAS#3846-71-7	1000 ppm (Restriction does not apply to UV-328, CAS 25973-55-1 when used in triacetyl cellulose (TAC) film in polarizers)	2A, 9, 10	UV filters in adhesives, inks, plastics, ribbons, putty or caulking
Phenolic Benzotriazoles: 2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl) phenol (**UV-350**) CAS # 36437-37-3, 2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (**UV-328**) CAS # 25973-55-1, 2,4-di-tert-butyl-6-(5-chlorobenzo triazol-2-yl) phenol (**UV-327**) CAS # 3864-99-1		2B, 10 17, 40 (UV-328 exemption)	
Phenol, Isopropylated Phosphate (3:1) (PIP (3:1)) CAS # 68937-41-7	Not intentionally added (Does not apply to lubricants, greases), (applies to adhesives and sealants 6Jan2025)	10, 16	Flame rated plastics, lubricants, adhesives and functional fluids

Restricted Chemical/ Substance	Threshold Limit with relevant application	Key Regulations/ References	Examples of Use
Phthalate: Bis(2-methoxyethyl) phthalate CAS# 117-82-8	1000 ppm	2B, 10	Plastics (often used in flexible PVC), dye, pigment, paint, ink, adhesive, lubricant
Phthalate: Dihexyl phthalate CAS# 84-75-3	1000 ppm	2B, 10	
Phthalate: Di-n-octyl phthalate **(DNOP)** CAS# 117-84-0	1000 ppm	2B	
Phthalate: Dipentyl phthalate **(DPP)** CAS# 131-18-0	1000 ppm	2B, 10	
Phthalate: Diisopentyl phthalate CAS# 605-50-5	1000 ppm	2B, 10	
Phthalate: n-pentyl-isopentylphthalate CAS# 776297-69-9	1000 ppm	2B, 10	
Phthalate: Benzyl butyl phthalate **(BBP)** CAS# 85-68-7	1000 ppm total content	1B, 2B, 10, 18, 29	
Phthalate: Bis (2-ethylhexyl) phthalate **(DEHP)** CAS# 117-81-7			
Phthalate: Dibutyl phthalate **(DBP)** CAS# 84-74-2			
Phthalate: Diisobutyl phthalate **(DIBP)** CAS# 84-69-5			
Phthalates: Diisononyl phthalate **(DINP)** CAS # 28553-12-0; 68515-48-0; 71549-78-5	146 µg/day exposure	7, 10	Plastics, cords, cables
Polybrominated biphenyls (PBBs) (see Table A5)	1000 ppm	1A, 2C, 10, 29	Flame retardant plastics
Polybrominated diphenyl ethers/ oxides (PBDEs), including deca-BDE (see Table A6)	1000 ppm (total sum of PDBEs)	1A, 2A, 2C, 10, 17, 29	Flame retardant plastics
Polychlorinated Biphenyls (PCBs) and Terphenyls (PCTs)	Not detectable	2C, 9, 10, 16, 17	Dielectric fluids, solvents, adhesives, plastics
Polychlorinated Napthalenes (more than 3 chlorine atoms)	Not intentionally added	9, 10, 17	Additive to rubber, lubricants and paints
Polycyclic Aromatic Hydrocarbons (PAHs) (see Table A7)	10 ppm (total sum of PAHs) (Restriction applies to exterior surfaces)	2C, 11, 17	Soft and hard plastic surfaces, especially dark plastics

Restricted Chemical/ Substance	Threshold Limit (ppm) with relevant application	Key Regulations/ References	Examples of Use
Polyvinyl chloride (PVC) in mechanical plastic parts	1000 (Restriction does not apply to electromechanical assemblies such as fans and motors, tapes, wires & cables and circuit board components)	4, 18	Structural plastics, dampeners, surface protectors or thin protective films
Radioactive Substances (see Table A8)	Not detectable	10, 12, 13	Optical properties (thorium), measuring devices, gauges, detector
Selenium and its compounds (photoconductor drums only)	Not intentionally added	4	Anti-microbial coating in plastic products
Strontium chromate (CI Pigment Yellow 32) CAS # 7789-06-2	1000	2B, 10	Colorants
Titanium Dioxide CAS # 13463-67-7	In finished toner, 1% or more of particles with diameter <=10 micron	4, 28	Toner
Tri-substituted organostannic compounds, Tributyl tin, Triphenyl tin and Tributyl tin oxide compounds (see Table A9)	Not detectable	2C, 10, 9	Stabilizer, preservatives and fungicides, inks, paints, pigments
Tris(2-chloroethyl) phosphate (TCEP) CAS #115-96-8	1000	2B, 10	Flame retardant
2,4,6-Tri-tert-butylphenol (2,4,6-TTBP) CAS # 732-26-3	1000	16B, 2A	Lubricant additive

Table 4 Reportable Substances

Any use of the substances listed below must be declared to Lexmark according to section **3.1**. Threshold limits are in parts per million (ppm) calculated as the mg of substance/kg of homogenous material. For reportable chemicals and compounds listed in this table, view the complete material details for all individual substances in the IEC 62474 Declarable and Reference Substance Lists (https://std.iec.ch/iec62474). Note that regulatory references and examples of use are not intended to be exhaustive lists and may not cover all regulations and uses that pertain to the substance.

Note on REACH SVHC candidate list substances: According to Articles 33 and 7.2 of EU REACH Regulation (EC) No. 1907/2006, suppliers must disclose the use of substances on the SVHC candidate list to downstream users if any of those substances are present in the supplied article at concentrations greater than 0.1% weight by weight. The table below seeks to identify the REACH SVHCs and other substances of concern that are applicable to electronics products; however, suppliers are expected to be familiar with the full list of REACH SVHCs and shall report on their presence even if not included in the list below or in **Table 3**. A link to the most current list of REACH SVHCs is provided within the definition for REACH SVHCs in section **1.4**.

Reportable Chemical/ Substance	Threshold Limit (ppm) with relevant application	Key Regulations/ References	Examples of Use
Acetaldehyde, CAS# 75-07-0	1000	16B	Chemical precursor, resins, polymer in adhesives
Acrylonitrile, CAS# 107-13-1	1000	16B	Coatings, adhesives, synthetic rubbers, surface-active agents
6-[(C10-C13)-alkyl-(branched, unsaturated)-2,5-dioxopyrrolidin-1-yl]hexanoic acid CAS# 2156592-54-8	1000	2A, 10	Lubricants, greases, release products and metal working fluids
Anthracene CAS# 120-12-7	1000	2A	Dyes, semiconductors, plastics, coatings
Antimony and its compounds	1000	2A, 2C, 7	Flame rated plastics, glass, pigment, paint, catalyst, stabilizer, elastomer rolls, solder
Antimony Trioxide CAS # 1309-64-4	1000	7	Co-synergist with halogenated flame retardants
Arsenic and its compounds	1000	2C	Pigment, dye, antifoamer for glass, semiconductor substrate, flame retardant
Benzeneamine, CAS# 62-53-3	1000	16B	Manufacturing of pigments, plastics, resins
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP), CAS# 71888-89-6	1000	2A, 10	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters, CAS# 141-63-9	1000	2A, 10	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant
1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate, CAS # 68648-93-1	1000	2A	Plasticizers, lubricants, adhesives, coatings
1,2-benzenedicarboxylic acid, di-C6-10- alkyl esters CAS # 68515-51-5	1000	2A	Plasticizers, lubricants, adhesives, coatings
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear, CAS# 68515-50-4	1000	2A, 10	Used as a plasticizer for certain plastics and rubbers
Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (TMA) CAS # 552-30-7	1000	2A	Adhesives, alkyd resins, coating additives, plasticizers

Reportable Chemical/ Substance	Threshold Limit (ppm) with relevant application	Key Regulations/ References	Examples of Use
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone (Photoinitiator 369) CAS # 119313-12-1	1000	2A	Photoinitiator, UV-cured adhesive, coating
Barium diboron tetraoxide CAS# 13701-59-2	1000	2A, 10	Paints and coatings
2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol (UV-329) CAS # 3147-75-9	1000	2A	Air care products, coating products, adhesives and sealants, lubricants and greases, polishes, waxes
Beryllium and its compounds	1000	10	Ceramics, metal alloys, catalyst, solder
1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme), CAS# 112-49-2	1000	2A, 10	Solvent may be used in battery electrolytes, printing inks.
Bis(2-(2-methoxy)ethyl)ether CAS # 143-24-8	1000	2A	In articles, widespread use in formulations, industrial sites, manufacturing
Bis(2-methoxyethyl) ether, CAS# 111-96-6	1000	2A, 10	Electrolyte in lithium batteries
Bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof CAS# 26040-51-7	1000	2A, 10	Flame retardant, plasticizer for PVC, wire & cable insulation, film & sheeting, coated adhesives
bis(4-chlorophenyl) sulphone CAS# 80-07-9	1000	2A, 10	Paper and cardboard products, electronic equipment
2,2-bis(4'-hydroxyphenyl)-4-methylpentane, CAS# 6807-17-6	1000	2A, 10	Resins, thermal paper, coatings, Inks, adhesives, liquid crystal materials, photosensitizers, recording agents, plastics, electronic & optical functional materials; substitute for BPA
4,4'-bis(dimethylamino)-4"-(methylamino)trityl alcohol [with ≥ 0.1% w/w of Michler's ketone (CAS 561-41-1)	1000	2A	printing inks

Reportable Chemical/ Substance	Threshold Limit (ppm) with relevant application	Key Regulations/ References	Examples of Use
4,4'-sulphonyldiphenol CAS# 80-09-1	1000	2A, 10	Paper chemicals and dyes, pulp, paper and paper products, textile, leather or fur and chemicals
Bis(α,α-dimethylbenzyl) peroxide CAS# 80-43-3	1000	2A	Polymers, elastomer, flame retardant synergist in EPS, polyethylene composites, vulcanization of rubber
Bisphenol B; 4,4'-(1-methylpropylidene)bisphenol CAS # 77-40-7	1000	2A, 10, 32	Manufacturing of phenolic resins
Boric acid CAS # 100043-35-3; 11113-50-1	1000	2A, 10	Capacitors, ceramics, glass, flame retardants, paints, fluids, solders, solvents
1,3-butadiene CAS # 106-99-0	1000	16B	Adhesives and sealants, fillers, inks and toners
Brominated Alcohol: 2,2-bis(bromomethyl)propane1,3-diol (BMP) CAS # 3296-90-0	1000	2A	Manufacture polymer resins & in one component foam (OCPF) application
Brominated Alcohol: 2,2-dimethylpropan-1-ol, tribromo derivative/3-bromo-2,2-bis(bromomethyl)-1-propanol (TBNPA) CAS # 1522-92-5 & 36483-57-5	1000	2A	Polymer production, and the manufacture of plastic products
Brominated Alcohol: 2,3-dibromo-1-propanol (2,3-DBPA), CAS # 96-13-9	1000	2A	Registered as an intermediate
Brominated flame retardants (other than PBBs, PBDEs, HBCDD, and TBBPA)	1000 (Reportable for all applications)	10	Flame rated plastics, electromechanical devices, connectors, tubing, circuit boards, package molding and substrates
Bumetrizole (UV326) CAS # 3896-11-5	1000	2A	UV filter, coating, products, adhesives and sealants
Chlorinated flame retardants	1000	2A, 2B, 10	Flame rated plastics, electromechanical devices, connectors, tubing, circuit boards, package molding and substrates
Cholecalciferol	1000	32	Biocide
Cobalt and its compounds, including Cobalt dichloride, Cobalt sulphate CAS # 7646-79-9, 10026-24-1, 10124-43-3	1000	2A	Used in machinery, mechanical appliances and electrical/electronic products, desiccant

Reportable Chemical/ Substance	Threshold Limit (ppm) with relevant application	Key Regulations/ References	Examples of Use
Critical Elements - Bismuth, Aluminum, Antimony, Tin, Cobalt, Lithium, Tantalum, Gallium, Germanium, Graphite, Indium, Silicon metalloid, Tellurium, Tungsten, Manganese, Zinc.	Disclose the total weight of each critical element	18	Cables, wiring, contacts, circuit boards and components
Decabromodiphenyl ethane (DBDPE) CAS # 84852-53-9	1000, Banned in Australia starting 1 July 2033	2A, 20	Flame retardant
Decamethyltetrasiloxane CAS# 141-62-8	1000	2A, 10	Lubricants, greases
Diboron trioxide (B2O3), CAS# 1303-86-2	1000	2A, 10	Wood veneers, glass/fiber optics, and ceramics - for industrial applications
Dibutylbis(pentane-2,4-dionato-O,O')tin, CAS# 22673-19-4	1000	2A, 10	Biocides & stabilisers in plastics. Manufacturing of adhesives, sealants, coatings, dyes, polymer preparations, resins and rubber.
1,2-diethoxyethane, CAS# 629-14-1	1000	2A, 10	Solvent used in electrolytes for lithium batteries.
1,4-dioxane CAS# 123-91-1	1000	2A	Solvent
2-(dimethylamino)-2-[(4-methylphenyl) methyl]-1-[4-(morpholin-4-yl) phenyl] butan-1-one CAS # 119344-86-4	1000	2A	inks and toners, printing and recorded media reproduction
1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME), CAS# 110-71-4	1000	2A, 10	Solvent used in battery electrolytes for lithium batteries. May be in found in printing inks and paint strippers
Diphenyl (2,4,6 trimethylbenzoyl)phosphine oxide CAS# 75980-60-8	1000	2A, 10	Polymers and resins, coating products, adhesives and sealants, and R&D
Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl) azouv] [1,1'-biphenyl]-4-yl] azo]-5-hydroxy-6-(phenyl azo) naphthalene-2,7-disulphonate (C.I. Direct Black 38) CAS # 1937-37-7	1000	2A, 10	Dyes, colorants
Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis (azo)] bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28) CAS # 573-58-0	1000	2A, 10	Dyes, colorants
Disodium octaborate CAS # 12008-41-2	1000	2A, 10	Heat transfer fluids, lubricants and greases

Reportable Chemical/ Substance	Threshold Limit (ppm) with relevant application	Key Regulations/ References	Examples of Use
Disodium tetraborate CAS # 1330-43-4 (anhydrous); 12179-04-3 (pentahydrate); 1303-96-4 (decahydrate)	1000	2A, 10	Biocide, buffer, capacitors, preservative
6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol CAS# 119-47-1	1000	2A, 10	Rubbers, lubricants, adhesives, inks
1,1'-[ethane-1,2-diylbisoxy]bis[2,4,6-tribromobenzene], CAS# 37853-59-1	1000	2A, 10	Additive flame retardant in ABS, PC HIPS, thermoplastics and thermoset resins, coatings
Ethylenediamine CAS # 107-15-3	1000	2A	Adhesives, sealants, coatings, fillers, plasters
2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stanna tetradecanoate (DOTE) CAS # 15571-58-1	1000	2A	Stabilizer in plastic
1,1,1,3,5,5,5-heptamethyl-3-[(trimethylsilyl)oxy]trisiloxane CAS # 17928-28-8	1000	2A, 10	Laboratory reagent
Hexahydromethylphthalic anhydride CAS# 48122-14-1, 57110-29-9, 25550-51-0, 19438-60-9	1000	2A, 10	Primary use is as a hardener for epoxy resins.
Imidazolidine-2-thione CAS # 96-45-7	1000	2A, 10	Rollers, manufacturing rubber
Isobutyl 4-hydroxybenzoate	1000	2A, 10	coating products, fillers, putties, plasters and inks and toners
Lead and its compounds (see allowed RoHS exemptions in Appendix B and Table A13)	1000	2A, 2C, 7	Colorants, coatings, steel, metal alloys, plastics, ceramics, solders, electronics, glass
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one (UV-907) CAS # 71868-10-5	1000	2A	Photoinitiator, UV-cured adhesive, coating
Nonadecafluorodecanoic acid (PFDA) and its sodium & ammonium salts CAS # 335-76-2, 3830-45-3, 3108-42-7	1000	2A, 10	Lubricant, wetting agent, plasticizer and corrosion inhibitor

Reportable Chemical/ Substance	Threshold Limit (ppm) with relevant application	Key Regulations/ References	Examples of Use
Mineral Oil, mineral oil-based inks, (report structure)	1000	32	Ink for packaging
Melamine CAS# 108-78-1	1000	2A, 10	Polymers, resins, coating products, adhesives and sealants
N-(hydroxymethyl)acrylamide CAS # 924-42-5	1000	2A	monomer for polymerisation (fluoroalkyl acrylate copolymer) paints and coatings
Nonylphenol-PEG CAS # 9016-45-9	1000	2A, 40	adhesive/laminating applications, cleaning agent
Octamethyltrisiloxane CAS # 107-51-7	1000	2A, 10	Coating in sealants and adhesives
Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol, CAS # 700-960-7	1000	2A	Adhesives, sealants, coatings, fillers, putties, plasters, inks, toners,
O,O,O-triphenyl phosphorothioate CAS # 597-82-0	1000	2A, 10	Lubricants and greases
Orthoboric acid, sodium salt, CAS# 25747-83-5, 22454-04-2, 14312-40-4, 1333-73-9, 13840-56-7, 14890-53-0	1000	2A, 10	As flame retardant or adhesive ingredients for plant-derived materials; glass manufacturing
Palm oil: palmitic acid (CAS 57-10-3), stearic acid, their salts and esters, HS code 2915 70	Report geolocation & Harmonization System Code	41	Coatings, waxes, sealants
Pentazinc chromate octahydroxide, CAS# 49663-84-5	1000	2A, 10	Colorant
Perchlorates	0.006	10, 24	Coin cell batteries
Perfluamine CAS # 338-83-0	1000	2A, 10	Manufacture electronic equipment
(**PFAS**): Perfluoroalkyl Substances Per- and Polyfluoroalkyl substances IEC 62474 Search RSL PFAS List (note: fluoropolymers such as PTFE, PFA, PFPE, FEP, etc. are included in this class)	1000	10, 35, 38	Semiconductor manufacturing, insulator for wires, planar etching, films, plastics, coatings
Perfluorobutane sulfonic acid **(PFBS)** and its salts CAS # 34454-97-2; 375-73-5; 375-72-4; 25628-08-4	1000	2A, 10, 35, 38	Flame retarded polycarbonate plastics
Perfluoroheptanoic acid and its salts CAS# 375-85-9	1000	2A, 10	Greases, coatings, emulsifiers, water repellent

Reportable Chemical/ Substance	Threshold Limit (ppm) with relevant application	Key Regulations/ References	Examples of Use
Perfluorononan-1-oic-acid and its sodium and ammonium salts CAS # 375-95-1, 21049-39-8, 4149-60-4	1000	2A	Lubricating additive, cleaning agent, processing aid
Phenol, alkylation products (mainly in para position) with C12-rich branched or linear alkyl chains from oligomerisation, covering any individual isomers and/or combinations thereof (PDDP)	1000	2A	Preparation of lubricant additive materials
Phosphoric acid, triphenyl ester (TPP) CAS # 115-86-6	1000	2A, 4, 10, 16B	Flame retardant
S-(tricyclo(5,2,1,0.2,6)deca-3-en-8(or 9)-yl O-(isopropyl or isobutyl or 2-ethylhexyl) phosphorodithioate CAS# 255881-94-8	1000	2A	Greases and lubricants
Phthalate: Dicyclohexyl phthalate **(DCHP)** CAS # 84-61-7	1000	2A, 10	Plasticizer (often used in flexible PVC), dye, pigment, paint, ink, adhesive, lubricant
Phthalate: Diethyl phthalate **(DEP)** CAS # 84-66-2	1000	32	
Phthalates: Diisodecyl phthalate **(DIDP)** CAS # 26761-40-0, 68515-49-1	1000	2C, 7, 10, 14	
Phthalate: Diisohexyl phthalate CAS # 71850-09-4	1000	2A, 10	
Phthalate: Diisooctyl phthalate **(DIOP)** CAS # 27554-26-3	1000	32	
Phthalate: Diundecyl phthalate **(DuDP)** CAS# 3648-202	1000	39	
Phthalic anhydride CAS # 85-44-9	1000	16B	Intermediate for phthalates
Polyvinyl chloride (PVC) CAS # 9002-86-2	1000 (Reportable for all applications)	10, 18	Cables, wires, connectors, electronic components, capacitors, battery trays, magnetic tape
Potassium hydroxyoctaoxodizincatedichromate, CAS# 11103-86-9	1000	2A, 10	Paint, anti-corrosion
1,3-Propanesultone CAS # 1120-71-4	1000	2A, 10	Electrolyte fluid of rechargeable lithium-ion batteries

Reportable Chemical/ Substance	Threshold Limit (ppm) with relevant application	Key Regulations/ References	Examples of Use
Precious metals - gold, silver, platinum, palladium	Disclose the total weight of each precious metal	32	Cables, wiring, contacts, circuit boards and components
Rare earths: scandium, yttrium, lanthanum, cerium, praseodymium, neodymium, promethium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, lutetium	Disclose the total weight of each rare earth	10, 32	LED, displays, motors rechargeable batteries, ceramics, circuit boards and its components
Reaction mass of 2,2,3,3,5,5,6,6-octafluoro-4-(1,1,1,2,3,3,3-heptafluoropropan-2-yl)morpholine and 2,2,3,3,5,5,6,6-octafluoro-4-(heptafluoropropyl)morpholine (FC-770)	1000	2A, 10	Used in articles, by professional workers (widespread uses), in formulation or re-packing
EU Reach SVHC candidate list substances https://www.echa.europa.eu/candidate-list-table	1000 Report if present and avoid use where possible	2A	
Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) with ≥0.1% w/w 4-heptylphenol, branched and linear (4-Hbl)	1000	2A	Lubricants and greases
Red phosphorus	1000	39	Flame retardants, pesticides, semiconductors
Refractory Ceramic Fibers (Aluminosilicate, Zirconia Aluminosilicate)	1000	2A	Thermal Insulation
Resorcinol; 1,3-benzenediol CAS # 108-46-3	1000	32	Production of diazo dyes and plasticizers
Rubber (Natural) CAS 9006-04-6, HS 4001	Report geolocation data & HS Code	41	Rollers, seals, gaskets
Silicic acid (H2Si2O5), barium salt (1:1), lead-doped, CAS# 68784-75-8	1000	2A, 10	Used in UV emitting light bulbs and lamps
Siloxanes cyclic: Dodecamethylcyclohexasiloxane (D6) CAS # 540-97-6	1000	2A, 10	Cleaning products, semiconductors
Siloxanes cyclic: Decamethylcyclopentasiloxane (D5) CAS # 541-02-6	1000	2A, 2C, 10	Cleaning products, dyes
Siloxanes cyclic: Octamethylcyclotetrasiloxane (D4) CAS # 556-67-2	1000	2A, 2C, 10	Cleaning products, dyes

Reportable Chemical/ Substance	Threshold Limit (ppm) with relevant application	Key Regulations/ References	Examples of Use
Silver and its compounds	1000	32	Circuit boards, contacts, switches, nanoparticle form as biocide, solder
Sodium dichromate CAS # 10588-01-9	1000	2A, 2B	Use not expected in electronic products
Sulfurous acid, lead salt, dibasic, CAS# 62229-08-7	1000	2A, 10	Heat stabilizer for PVC, for example for wiring and cabling insulation
Terphenyl, hydrogentated CAS # 61788-32-7	1000	2A, 10	Plastic packaging, casing
Tetraboron disodium heptaoxide, hydrate CAS # 12267-73-1	1000	2A, 10	Adhesives, capacitors, ceramics, cleaners, flame retardants, glass, metallurgy
TetraBromoBisphenol A (TBBPA) CAS # 79-94-7 additive & reactive	1000	7, 10	Flame retardant used in FR4 and other circuit board laminates and board components
4-(1,1,3,3-tetramethylbutyl)phenol, CAS# 140-66-9	1000	2A, 10	Unreacted process chemical
Trilead dioxide phosphonate, CAS# 12141-20-7	1000	2A, 10	Heat stabilizer for PVC, for wiring & cabling insulation
(±)-1,7,7- trimethyl-3-[(4-methylphenyl)methylene]bicyclo[2.2.1]heptan-2-one (Tradename Parsol 5000) CAS# 36861-47-9	1000	2A	UV absorbing material in cosmetics
Triphenyl phosphate CAS Number: 115-86-6	1000 (Prohibited in cover parts >25g)	2A, 4, 10,	Flame Retardant
Reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives CAS # 192268-65-8	1000	2A, 10	
Tris (1,3-dichloro-2-propyl) phosphate (TDCPP) CAS # 13674-87-8	1000	39	Flame retardant, pesticide, plasticizer
Tris (4-nonylphenyl, branched and linear) phosphite (TNPP) with >= 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	1000	2A, 10	Plastics, polymers, adhesives, sealants, coatings, polyethylene films
Trixylyl phosphate CAS # 25155-23-1	1000	2A, 10	Hydraulic fluids, flame retardants, and plasticizers
tris(2-methoxyethoxy)vinylsilane CAS# 1067-53-4	1000	2A	Rubbers, plastics, sealants
Vinyl Chloride, CAS# 75-01-4	1000	16B	Packaging products, wire and cable insulation
Zinc Stearate CAS# 557-05-1 , HS code 3824.99	Report geolocation if originated from palm oil & Harmonization System Code	41	Toner additive, colorant

Table 5 Batteries – Material Content Restrictions or Reportable Substances

Chemical/Substance	Threshold Limit (ppm)	Key Regulatory and References
Cadmium and its compounds	20	21, 22, 25
Lead and its compounds	40	
Mercury and its compounds	5	
Reportable: REACH SVHC candidate list substances (See section **1.4** for a link to most current list of SVHCs)	1000 Report if present above threshold and avoid use where possible	2A

Table 6 Packaging Materials - Restricted or Reportable Substances

Packaging and packaging material including labels and prints supplied to Lexmark must comply with Tables 3, 4 and 6 of the Lexmark Product Environmental Specification as well as the Lexmark Supplier and Interplant Packaging and Handling Specification PN: 3085125 https://www.lexmark.com/pkgspec. Packaging articles containing substances in the EU REACH SVHC Candidate List above the threshold limit, or reportable substances in the Lexmark Product Environmental Specification shall be disclosed in the Supplier Certification Form for Packaging.

Packaging Chemical/Substance	Threshold Limit (ppm) w/ relevant application	Key Regulatory and References
Heavy Metals: Cadmium, Chromium VI, Lead, and Mercury and their compounds	100 (Sum of concentration of all four metals and their compounds)	18, 26
Elemental Chlorine	Not intentionally added in virgin or recovered content fiber	18
Ozone Depleting Substances (Class I & Class II Chlorofluorocarbons (CFCs) and Hydrofluorocarbons (HCFCs)) (see **Table A3** & **Table A4**)	Not detectable Also not permitted for use in the manufacturing process	8, 15
Arsenic, creosote, & compounds of chromium in wood packaging (e.g. – pallets)	Not detectable	2A, 2B, 2C
Halogenated plastics: Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers/oxides (PBDEs), including deca-BDE (see LPES Table A6) and polyvinyl chloride (PVC)	Not detectable	4, 10, 18
Dimethylfumarate (DMF)	Not detectable	2C, 27
Per- and Polyfluoroalkyl Substances (PFAS), EPA's full list of PFA - CompTox Chemicals Dashboard (epa.gov)	Not detectable	2A, 2C, 9, 17, 19, 32, 35, 38
Perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds CAS # 335-67-1 (and others)	0.025 for PFOA and salts, 1 for PFOA related compounds	17, 35, 38
Ortho-Phthalates (1,2-Benzenedicarboxylic acid esters) phthalates include but are not limited to (BBP, DEHP, DBP, DIBP, DINP)	500 (individually or sum of any combination)	2C, 1B, 18
Formaldehyde (released from an article) CAS # 50-00-0 Note: Test methods listed in Appendix 14 of Commission Regulation (EU) 2023/1464 of 14July2023	0.062 mg/m³ for furniture and wood-based articles	2C
	0.080 mg/m³ for all other articles	2C, 10
Solvents Prohibited in Printing Inks (see Table 7)	Not intentionally added to printing inks	31

Packaging Chemical/Substance	Threshold Limit (ppm) w/ relevant application	Key Regulatory and References
Mineral oil with mineral oil aromatic hydrocarbons (MOAH) consisting of 1 to 7 aromatic rings	1000 ppm	32
Mineral oil with MOAH consisting of 3 to 7 rings	1 ppm	32
Mineral oil with mineral oil saturated hydrocarbons (MOSH) consisting of 16 to 35 carbon atoms	1000 ppm	32
Reportable: Mineral Oil, mineral oil-based inks, (report amount, structure)	Report if present	32
ECHA Annex XIV Authorisation List, https://echa.europa.eu/authorisation-list	Not detectable	2B
ECHA Annex XVII Reach Regulation (EC) No. 1907/2006, Restricted List, https://echa.europa.eu/substances-restricted-under-reach	Not detectable	2C
Reportable: REACH SVHC candidate list substances https://www.echa.europa.eu/candidate-list-table	1000 Report if present, avoid use where possible	2A
Reportable: Hazardous substances as classified in Annex I of EC Regulation No 1272/2008 on classification, labelling and packaging of substances and mixtures	1000 Report concentration amount if above threshold and minimize use	28

Table 7 List of Prohibited Solvents in Product Manufacturing in the People's Republic of China

Solvents listed in this table shall not be added to printing inks on products or packaging according to National Standard GB 38507-2020 of the People's Republic of China. For the limits of permissible volatile organic compounds (VOCs) in printing inks as well as requirements and test methods please refer to Chinese Standard GB 38507-2020.

For the limit requirements of VOCs in solvent-based, water-based and bulk adhesives please refer to Chinese Standard GB 33372-2020. For the requirements for VOCs in cleaning agents please refer to China GB 38508-2020. Suppliers considered in scope of the VOC standards must comply with the requirements.

Chemical/Substance	CAS #	Chemical/Substance	CAS #
Halohydrocarbons		2-methoxyethanol	109-86-4
Ethylbenzene	100-41-4	2-methoxyethyl acetate	110-49-6
Propylene epoxide	75-56-9	2-nitropropane	79-46-9
Styrene	100-42-5	1-methyl-2-pyrrolidinone	872-50-4
Benzene	71-43-2	1,2-bis-(2-methoxyethoxy) ethane	112-49-2
Isopropyl nitrite	541-42-4	Ethylene glycol dimethyl ether	110-71-4
Butyl nitrite	544-16-1	Ethylene glycol diethyl ether	629-14-1
2-ethoxyethanol	110-80-5	Toluene	108-88-3
2-ethoxyethyl acetate	111-15-9	Dimethylbenzene	1330-20-7

Table 8 Key Laws, Regulations and References in Tables 3-7

Number in Table	Laws, Regulations and References
1A	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)
1B	EU Directive 2015/863 amending Annex II to Directive 2011/65/EU (RoHS)
2A	Reach Regulation (EC) No. 1907/2006, Candidate List
2B	Annex XIV Reach Regulation (EC) No. 1907/2006, Authorisation List
2C	Annex XVII Reach Regulation (EC) No. 1907/2006, Restricted List
3	China Ten Rings Appendix B
4	Germany: Blue Angel
5	Regulation (EC) No 842/2006 of the European Parliament
6	EU Directive 2012/19/EU of the European Parliament and the Council on Waste Electrical and Electronic Equipment, July 2012
7	California Proposition 65, The Safe Drinking Water and Toxic Enforcement Act of 1986
8	International Treaty: Montreal Protocol on Substances the Deplete the Ozone Layer
9	Japan: Chemical Substances Control Law
10	International Electrotechnical Commission standard IEC 62474 – click here
11	German GS Mark according to ZEK 01-08
12	Japan Law for the Regulation of Nuclear Source Material, Nuclear Fuel Material, and Reactors
13	Japan Law for the Prevention from Radiation Hazards due to Radio-Isotopes
14	United States Consumer Product Safety Commission
15	US 1990 Clean Air Act
16	US Toxic Substances Control Act
16B	US Toxic Substances Control Act under review for inclusion
17	Regulation of the European Parliament and of the Council on persistent organic pollutants (EU) No 2019/1021, as amended
18	EPEAT IEEE 1680.2/2a Imaging Equipment
19	Canadian Environmental Protection Act, 1999: Prohibition of Certain Toxic Substances Regulations, 2012
20	Canadian Environmental Protection Act, 1999 (CEPA) proposed amendments to Schedule 3, or the Export Control List (ECL)
21	EU Battery Regulation (Regulation (EU) 2023/1542 replaces EU Battery Directive 2006/66/EC
22	Chinese Battery Standard GB 24427-2009
23	Japanese RoHS, Law for Promotion of Effective Utilization of Resources
24	California Perchlorate Contamination Prevention Act of 2003
25	Korea: Law on quality management and control of safety of industrial products Battery regulation
26	EU Directive 94/62/EC on packaging and packaging waste
27	EU Commission Decision 2009/251/EC
28	EU Regulation (EC) No 1272/2008 - Classification, Labelling and Packaging
29	China RoHS 2 Restricted Substances in Electrical and Electronic Products
30	US OSHA 29 CFR 1910.1048 Toxic and Hazardous Substances - Formaldehyde
31	National Standard of the People's Republic of China, GB 38507-2020, Limits of VOCs in printing ink; GB 33372-2020, VOCs in solvent-based, water-based and bulk adhesives; GB 38508-2020, VOCs in cleaning agents
32	French Circular Economy Bill – Law No. 2020-105 of Feb 10, 2020
33	UK REACH
34	UK RoHS Regulation 2020 (SI 2020/1647)
35	Maine DEP – report intentionally added **PFAS by CAS number and quantity beginning January 1, 2023**
36	EPA's SNAP Program (Significant New Alternatives Policy) hydrofluorocarbons (HFCs)
37	New York State regulation (Senate bill S4630B) reporting the presence of organohalogen flame retardants in enclosures or stands of their electronic displays
38	US EPA - PFAS Master List of PFAS Substances (including Structure and CAS #) – click here
39	Customer Requirements
40	Singapore Environmental Protection and Management Act 1999 (Amendment of Second Schedule) Order 2022
41	European Regulation (EU) 2023/1115 Associated with Deforestation and Forest Degradation
42	Australia Industrial Chemicals Environmental Management (IChEM) 26June 2025

Appendix A. Detailed Substance Lists for Certain Substances

These lists highlight key items but do not cover every possibility. They represent examples of chemicals within a substance family. To aid identification, known CAS numbers are provided when available.

Table A1 – Aromatic Amines formed from Azo colorants and Azo dyes

Chemical / Substance	CAS #
biphenyl-4-ylamine	92-67-1
Benzidine	92-87-5
4-chloro-o-toluidine	95-69-2
2-naphthylamine	91-59-8
o-aminoazotoluene	97-56-3
5-nitro-o-toluidine	99-55-8
4-chloroaniline	106-47-8
4-methoxy-m-phenylenediamine	615-05-4
4,4'-methylenedianiline	101-77-9
3,3'-dichlorobenzidine	91-94-1
3,3'-dimethoxybenzidine	119-90-4
3,3'-dimethylbenzidine	119-93-7
4,4'-methylenedi-o-toluidine	838-88-0
6-methoxy-m-toluidine	120-71-8
4,4'-methylene-bis(2-chloroaniline)	101-14-4
4,4'-oxydianiline	101-80-4
4,4'-thiodianiline	139-65-1
o-toluidine	95-53-4
4-methyl-m-phenylenediamine	95-80-7
2,4,5-trimethylaniline	137-17-7
o-anisidine	90-04-0
4-amino azobenzene	60-09-3
A mixture of: disodium (6-(4-anisidino)-3- sulfonato-2-(3,5-dinitro-2-oxidophenylazo)-1-naphtholato)(1-(5-chloro-2-oxidophenylazo)-2-naphtholato)chromate(1-); and trisodium bis(6-(4-anisidino)-3-sulfonato-2-(3,5- dinitro-2-oxidophenylazo)-1-naphtholato)chromate(1-)	Not allocated
Notes: The European Community's aromatic amines ban applies to certain azo colorants and azo dyes that by reductive cleavage of azo groups may release one of the above aromatic amines.	

Table A2 – Fluorinated Greenhouse Gas Compounds

Chemical / Substance	CAS #
Carbon tetrafluoride (Perfluoromethane)	75-73-0
Perfluoroethane (Hexafluoroethane)	76-16-4
Perfluoropropane (Octafluoropropane)	76-19-7
Perfluorobutane (Decafluorobutane)	355-25-9
Perfluoropentane (Dodecafluoropentane)	678-26-2
Perfluorohexane (Tetradecafluorohexane)	355-42-0
Perfluorocyclobutane	115-25-3
Sulfur Hexafluoride (SF6)	2551-62-4
Trifluoromethane - (HFC-23)	75-46-7
Difluoromethane - (HFC-32)	75-10-5
Methyl fluoride – (HFC-41)	593-53-3
2H,3H-Decafluoropentane – (HFC-43-10mee)	138495-42-8
Pentafluoroethane (HFC-125)	354-33-6

1,1,2,2-Tetrafluoroethane – (HFC-134)	359-35-3
1,1,1,2-Tetrafluoroethane – (HFC-134a)	811-97-2
1,1-Difluoroethane – (HFC-152a)	75-37-6
1,1,2-Trifluoroethane-(HFC-143)	430-66-0
1,1,1-Trifluoroethane – (HFC-143a)	420-46-2
2H-Heptafluoropropane- (HFC-227ea)	431-89-0
1,1,1,2,2,3-hexafluoro-propane (HFC-236cb)	677-56-5
1,1,1,2,3,3-Hexafluoropropane – (HFC-236ea)	431-63-0
1,1,1,3,3,3-Hexafluoropropane – (HFC-236fa)	690-39-1
1,1,2,2,3-Pentafluoropropane – (HFC-245ca)	679-86-7
1,1,1,3,3-Pentafluoropropane – (HFC-245fa)	460-73-1
1,1,1,3,3-Pentafluorobutane – (HFC-365mfc)	406-58-6

Table A3 – Ozone Depleting Substances – Chlorofluorocarbons (CFCs)

Chemical / Substance	CAS #
Trichlorofluoromethane (CFC11)	75-69-4
Dichlorodifluoromethane (CFC12)	75-71-8
Chlorotrifluoromethane (CFC 13)	75-72-9
Pentachlorofluoroethane (CFC 111)	354-56-3
Tetrachlorodifluoroethane (CFC 112)	76-12-0
Trichlorotrifluoroethane (CFC 113) 1,1,2 Trichloro-1,2,2 trifluoroethane	354-58-5 76-13-1
Dichlorotetrafluoroethane (CFC 114)	76-14-2
Monochloropentafluoroethane (CFC 115)	76-15-3
Heptachlorofluoropropane (CFC 211)	422-78-6, 135401-87-5
Hexachlorodifluoropropane (CFC 212)	3182-26-1
Pentachlorotrifluoropropane (CFC 213)	2354-06-5 134237-31-3
Tetrachlorotetrafluoropropane (CFC 214) 1,1,1,3-Tetrachlorotetrafluoropropane	29255-31-0 2268-46-4
Trichloropentafluoropropane (CFC 215) 1,1,1-Trichloropentafluoropropane 1,2,3-Trichloropentafluoropropane	1599-41-3 4259-43-2 76-17-5
Dichlorohexafluoropropane (CFC 216)	661-97-2
Monochloroheptafluoropropane (CFC 217)	422-86-6
Bromochlorodifluoromethane (Halon 1211)	353-59-3
Bromotrifluoromethane (Halon 1301)	75-63-8
Dibromotetrafluoroethane (Halon 2402)	124-73-2
Carbon Tetrachloride (Tetrachloromethane)	56-23-5
1,1,1, - Trichloroethane (methyl chloroform)[1] and its isomers except 1,1,2-trichloroethane	71-55-6
Bromomethane (Methyl Bromide)	74-83-9
Dibromofluoromethane	1868-53-7
Bromodifluoromethane	1511-62-2
Bromofluoromethane	373-52-4
Tetrabromofluoroethane	306-80-9
Tribromodifluoroethane	-
Dibromotrifluoroethane	354-04-1
Bromotetrafluoroethane	124-72-1
Tribromofluoroethane	-
Dibromodifluoroethane	75-82-1
Bromotrifluoroethane	421-06-7
Dibromofluoroethane	358-97-4
Bromodifluoroethane	420-47-3
Bromofluoroethane	762-49-2

Hexabromofluoropropane	-
Pentabromodifluoropropane	-
Tetrabromotrifluoropropane	-
Tribromotetrafluoropropane	-
Dibromopentafluoropropane	431-78-7
Bromohexafluoropropane	2252-78-0
Pentabromofluoropropane	-
Tetrabromodifluoropropane	-
Tribromotrifluoropropane	-
Dibromotetrafluoropropane	-
Bromopentafluoropropane	460-88-8
Tetrabromofluoropropane	-
Tribromodifluoropropane	70192-80-2
Dibromotrifluoropropane	431-21-0
Bromotetrafluoropropane	679-84-5
Tribromofluoropropane	75372-14-4
Dibromodifluoropropane	460-25-3
Bromotrifluoropropane	421-46-5
Dibromofluoropropane	51584-26-0
Bromodifluoropropane	-
Bromofluoropropane	1871-72-3
Bromochloromethane	74-97-5
Notes: [1] Exception: may be used in manufacture of material in case of transformation use where 1,1,1-trichloroethane is consumed and does not pose a threat to the stratospheric ozone layer.	

Table A4 – Ozone Depleting Substances – Hydrochlorofluorocarbons (HCFCs)

Chemical / Substance	CAS #
Dichlorofluoromethane (HCFC 21)	75-43-4
Chlorodifluoromethane (HCFC 22)	75-45-6
Chlorofluoromethane (HCFC 31)	593-70-4
Tetrachlorofluoroethane (HCFC 121) 1,1,1,2-tetrachloro-2-fluoroethane (HCFC 121a) 1,1,2,2-tetracloro-1-fluoroethane	134237-32-4 354-11-0 354-14-3
Trichlorodifluoroethane (HCFC 122) 1,2,2-trichloro-1,1-difluoroethane	41834-16-6 354-21-2
Dichlorotrifluoroethane (HCFC 123) Dichloro-1,1,2-trifluoroethane 2,2-dichloro-1,1,1-trifluroethane 1,2-dichloro-1,1,2-trifluroethane (HCFC-123a) 1,1-dichloro-1,2,2-trifluroethane (HCFC-123b) 2,2-dichloro-1,1,2-trifluroethane (HCFC-123b)	34077-87-7 90454-18-5 306-83-2 354-23-4 812-04-4 812-04-4
Chlorotetrafluoroethane (HCFC 124) 2-chloro-1,1,1,2-tetrafluoroethane 1-chloro-1,1,2,2-tetrafluoroethane (HCFC 124a)	63938-10-3 2837-89-0 354-25-6
Trichlorofluoroethane (HCFC 131) 1-Fluoro-1,2,2-trichloroethane 1,1,1-trichloro-2-fluoroethane (HCFC131b)	27154-33-2;(134237-34-6) 359-28-4 811-95-0
1-Chloro-1-fluoroethane (HCFC-151)	1615-75-4
Dichlorodifluoroethane (HCFC 132) 1,2-dichloro-1,1-difluoroethane (HCFC 132b) 1,1-dichloro-1,2-difluoroethane (HFCF 132c) 1,1-dichloro-2,2-difluoroethane 1,2-dichloro-1,2-difluoroethane	25915-78-0 1649-08-7 1842-05-3 471-43-2 431-06-1

Chlorotrifluoroethane (HCFC 133) 1-chloro-1,2,2-trifluoroethane 2-chloro-1,1,1-trifluoroethane (HCFC-133a)	1330-45-6 1330-45-6 75-88-7
Dichlorofluoroethane (HCFC 141) 1,1-dichloro-1-fluoroethane (HCFC-141b) 1,2-dichloro-1-fluoroethane	1717-00-6; (25167-88-8) 1717-00-6 430-57-9
Chlorodifluoroethane (HCFC 142) 1-chloro-1,1-difluoroethane (HCFC142b) 1-chloro-1,2-difluoroethane (HCFC142a)	25497-29-4 75-68-3 25497-29-4
Hexachlorofluoropropane (HCFC 221)	134237-35-7
Pentachlorodifluoropropane (HCFC 222)	134237-36-8
Tetrachlorotrifluropropane (HCFC 223)	134237-37-9
Trichlorotetrafluoropropane (HCFC 224)	134237-38-0
Dichloropentafluoropropane, (Ethyne, fluoro-) (HCFC 225) 2,2-Dichloro-1,1,1,3,3-pentafluoropropane(HCFC 225aa) 2,3-Dichloro-1,1,1,2,3-pentafluoropropane (HCFC 225ba) 1,2-Dichloro-1,1,2,3,3-pentafluoropropane (HCFC 225bb) 3,3-Dichloro-1,1,1,2,2-pentafluoropropane (HCFC 225ca) 1,3-Dichloro-1,1,2,2,3-pentafluoropropane (HCFC 225cb) 1,1-Dichloro-1,2,2,3,3-pentafluoropropane(HCFC 225cc) 1,2-Dichloro-1,1,3,3,3-pentafluoropropane (HCFC 225da) 1,3-Dichloro-1,1,2,3,3-pentafluoropropane (HCFC 225ea) 1,1-Dichloro-1,2,3,3,3-pentafluoropropane(HCFC 225eb)	127564-92-5; (2713-09-9) 128903-21-9 422-48-0 422-44-6 422-56-0 507-55-1 13474-88-9 431-86-7 136013-79-1 111512-56-2
Chlorohexafluoropropane (HCFC 226)	134308-72-8
Pentachlorofluoropropane (HCFC 231)	134190-48-0
Tetrachlorodifluoropropane (HCFC 232)	134237-39-1
Trichlorotrifluoropropane (HCFC 233) 1,1,1-Trichloro-3,3,3-trifluoropropane	134237-40-4 7125-83-9
Dichlorotetrafluoropropane (HCFC 234)	127564-83-4
Chloropentafluoropropane (HCFC 235) 1-Chloro-1,1,3,3,3-pentafluoropropane	134237-41-5 460-92-4
Tetrachlorofluoropropane (HCFC 241)	134190-49-1
Trichlorodifluoropropane (HCFC 242)	134237-42-6
Dichlorotrifluoropropane (HCFC 243) 1,1-dichloro-1,2,2-trifluoropropane 2,3-dichloro-1,1,1-trifluoropropane 3,3-Dichloro-1,1,1-trifluoropropane	134237-43-7 7125-99-7 338-75-0 460-69-5
Chlorotetrafluoropropane (HCFC 244) 3-chloro-1,1,2,2-tetrafluoropropane	134190-50-4 679-85-6
Trichlorofluoropropane (HCFC 251) 1,1,3-trichloro-1-fluoropropane	134190-51-5 818-99-5
Dichlorodifluoropropane (HCFC 252)	134190-52-6
Chlorotrifluoropropane (HCFC 253) 3-chloro-1,1,1-trifluoropropane (HCFC 253fb)	134237-44-8 460-35-5
Dichlorofluoropropane (HCFC 261) 1,1-dichloro-1-fluoropropane	134237-45-9 7799-56-6
Chlorodifluoropropane (HCFC 262) 2-chloro-1,3-difluoropropane	134190-53-7 102738-79-4
Chlorofluoropropane (HCFC 271) 2-chloro-2-fluoropropane	134190-54-8 420-44-0

Table A5 – Polybrominated biphenyls (PBBs)

Chemical / Substance	CAS #
Polybrominated Biphenyls	59536-65-1
Dibromobiphenyl	92-86-4
2-Bromobiphenyl	7/5/2052
3-Bromobiphenyl	2113-57-7
4-Bromobiphenyl	92-66-0
Tribromobiphenyl	59080-34-1
Tetrabromobiphenyl	40088-45-7
Pentabrphenyl	56307-79-0
Hexabromobiphenyl	59080-40-9
hexabromo-1,1-biphenyl	36355-01-8
Firemaster FF-1	67774-32-7
Heptabromobiphenyl	35194-78-6
Octabromobiphenyl	61288-13-9
Nonabiphenyl	27753-52-2
Decabromobiphenyl	13654-09-6

Table A6 – Polybrominated diphenyl ethers (PBDEs)

Chemical / Substance	CAS #
Bromodiphenyl ether	101-55-3
Dibromodiphenyl ethers	2050-47-7
Tribromodiphenyl ether	49690-94-0
Tetrabromodiphenyl ethers	40088-47-9
Pentabromodidphenyl ether (note: Commercially available PeBDPO is a complex reaction mixture containing a variety of brominated diphenyloxides.	32534-81-9 (CAS number used for commercial grades of PeBDPO)
Hexabromodiphenyl ether	36483-60-0
Heptabromodiphenylether	68928-80-3
Octabromodiphenyl ether	32536-52-0
Nonabromodiphenylether	63936-56-1
Decabromodiphenyl ether (decaBDE)	1163-19-5

Table A7– Polycyclic Aromatic Hydrocarbons (PAHs)

Chemical / Substance	CAS #
Acenaphthene	83-32-9
Acenaphthylene	208-96-8
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(e)pyrene	192-97-2
Benzo(g,h,i)perylene	191-24-2
Benzo(j)fluoranthene	205-82-3
Benzo(k)fluoranthene	207-08-9
Chrysene	218-01-9
Dibenzo(a,h)anthracene	53-70-3
Fluoranthene	206-44-0
Fluorene	86-73-7
Indeno(1,2,3-c,d)pyrene	193-39-5
Naphthalene	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Table A8 – Radioactive Substances

Chemical / Substance	CAS #
Uranium-238	7440-61-1
Radon	10043-92-2
Americium-241	14596-10-2
Thorium-232	7440-29-1
Cesium (Radioactive Isotopes only)	7440-46-2 (Cs-137 010045-97-3)
Strontium (Radioactive Isotopes only)	(elemental 7440-29-6) (Sr-90 10098-97-2)
Other radioactive substances	-

Table A9 – Tri-substituted Organostannic Compounds

Chemical / Substance	CAS #
Triphenyltin=N, N-dimethyldithiocarbamate	1803-12-9
Triphenyltinfluoride	379-52-2
Triphenyltinacetate	900-95-8
Triphenyltinchloride	639-58-7
Triphenyltinhydroxide	76-87-9
Triphenyltin fattyacid((9-11)salt)	18380-71-7
	18380-72-8
	47672-31-1
	94850-90-5
Triphenyltinchloroacetate	7094-94-2
Tributyltinmethacrylate	2155-70-6
Bis(tributyltin)fumalate	6454-35-9
Tributyltinfluoride	1983-10-4
Bis(tributyltin)2,3-dibromosuccinate	31732-71-5
Tributyltinacetate	56-36-0
Tributyltinlaurate	3090-36-6
Bis(tributyltin)phthalate	4782-29-0
Copolymer of alkyl(c=8) acrylate,methyl methacrylate and tributyltin methacrylate	67772-01-4
Tributyltinsulfamate	6517-25-5
Bis(tributyltin)maleate	14275-57-1
Tributyltinchloride	1461-22-9, 7342-38-3
Tributyltin cyclopentane carbonate=mixture	5409-17-2
Tributyltin-1, 2,3,4,4a, 4b, 5,6,10,10a-decahydro-7-isoplopyl-1, 4a-dimethyl-1-phenanthrencarboxylatemix	26239-64-5
Bis(tributyltin) oxide (TBTO)	56-35-9

Table A10 – Perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds

Chemical / Substance	CAS #
Perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds means the following: • Perfluorooctanoic acid (PFOA; CAS No. 335-67-1), including any of its branched isomers; • Its salts; • PFOA-related compounds which, for the purposes of the Convention, are any substances that degrade to PFOA, including any substances (including salts and polymers) having a linear or branched perfluoroheptyl group with the moiety (C7F15)C as one of the structural elements	335-67-1, 3825-26-1, 335-95-5, 2395-00-8, 335-93-3, 335-66-0, 376-27-2, 3108-24-5 and others

Table A11 – Perfluorooctane sulfonates (PFOS)

Chemical / Substance	CAS #
Perfluorooctanesulfonyl fluoride	307-35-7
2-Propenoic acid, 2-methyl-, 2- [ethyl[(heptadecafluorooctyl)sulfonyl] amino] ethyl ester	376-14-7
2-Propenoic acid, 2- [butyl[(heptadecafluorooctyl)sulfonyl] amino] ethyl ester	383-07-3
2-Propenoic acid, 2- [ethyl[(heptadecafluorooctyl)sulfonyl] amino] ethyl ester	**423-82-5**
N-allylheptadecafluorooctanesulphonamide	**423-86-9**
Perfluorooctane sulfonamide	**754-91-6**
N,N-dimethyl,3-perfluorooctylsulfonylpropyl-aminium, iodide	**1652-63-7**

Table A12 – Restricted Lead Compounds

Chemical / Substance	CAS #
Tetralead trioxide sulphate	12202-17-4
Orange lead (lead tetroxide)	1314-41-6
Lead titanium trioxide	12060-00-3
Lead	7439-92-1
And other lead compounds	---

Table A13 – Reportable Lead Compounds

Chemical / Substance	CAS #
Pyrochlore, antimony lead yellow	8012-00-8
Pentalead tetraoxide sulphate	12065-90-6
Lead cyanamidate	20837-86-9
Lead titanium zirconium oxide	12626-81-2
Lead oxide sulfate	12036-76-9
[Phthalato(2-)]dioxotrilead	69011-06-9
Dioxobis(stearato)trilead	12578-12-0
Fatty acids, C16-18, lead salts	91031-62-8
Lead dinitrate	10099-74-8

Table A14 – Restricted Dibutyltin (DBT) and Dioctyltin (DOT) Compounds

Chemical / Substance	CAS #
Dibutyltin oxide	818-08-6
Dibutyltin diacetate	1067-33-0
Dibutyltin dilaurate	77-58-7
Dibutyltin maleate	78-04-6
Dioctyl Tin Oxide	870-08-6
Dioctyltin dilaurate	3648-18-8
Other Dibutyltin compounds	---

Table A15 – Restricted Cadmium and its Compounds

Chemical / Substance	CAS #
Cadmium oxide	1306-19-0
Cadmium	7440-43-9
Cadmium sulfide	1306-23-6
Cadmium chloride	10108-64-2
Cadmium sulfate	10124-36-4
Other Cadmium compounds	---

Appendix B. Permitted RoHS Exemptions for Lead

The Annex of the EU RoHS Directive **2011/65/EU** provides a list of application specific exemptions for the continued use of prohibited RoHS substances. While this list contains numerous exemptions, only the items listed below from Directive 2011/65/EU categories 3 (imaging equipment) and 11 (supplies, accessories) are permitted for use in Lexmark parts and products. In view of proposed amendments and the potential expiration of existing exemptions, suppliers are advised to consult the current status of EU RoHS exemptions via the official implementation page at https://environment.ec.europa.eu/topics/waste-and-recycling/rohs-directive/rohs-directive-implementation_en.

The use of exemptions and the specific exemption(s) being claimed must be declared when reporting material content data according to section **3.1**. The numbering of the items below follows the numbering used in the Annex of the Directive **2011/65/EU**.

Exemption	Application	Category	Deadline
6(a)	Lead up to 0.35% by weight in alloyed steel (for machining) and galvanized steel	11	Valid - requested for renewal
6(a)-I	Lead up to 0.35% by weight in alloyed steel (for machining) and up to 0.2% lead by weight in batch hot-dip galvanized steel	3	Valid - requested for renewal
6(b)	Lead as an alloying element in aluminum containing up to 0.4% lead by weight	11	Valid - requested for renewal
6(b)-I	Lead up to 0.4% lead by weight in recycled scrap aluminum alloys	3	Valid - requested for renewal
6(b)-II	Lead up to 0.4% lead by weight in aluminum alloys for machining	3	Valid - requested for renewal
6(c)	Lead up to 4% lead by weight in copper alloys	3	Valid - requested for renewal
		11	Valid - requested for renewal
7(a)	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead),	3	Valid - requested for renewal
		11	Valid - requested for renewal
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	3	Valid - requested for renewal
		11	Valid - requested for renewal
7(c)-II	Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher	3	Valid - requested for renewal
		11	Valid - requested for renewal

Date	02SEP05	23OCT06	24OCT07	07OCT09	27APR11	7MAY12	24July13	10Sept15	13Dec16	02Feb18
E.C.	20G136	20G321	20G432	6009869	6027185	6041313	6048225	6078067	6090273	6097217
Date	01Nov18	01Nov19	30Oct20	17Dec21	28Oct22	27Oct23	11Oct24	18Nov25		
E.C.	6106217	6112489	6117358	6124800	6130751	6137380	6142049	6147297		