

Lenovo RoHS/REACH Specification 41A7733

Mercury (Hg)	0.1% or 1,000 ppm	Any detectable level must be reported except unavoidable impurities at levels below 10ppm.
Cadmium (Cd)	0.01% or 100 ppm	0.0 Any detectable level must be reported for plating and surface coating applications.
Hexavalent chromium (Cr +6)	0.1% or 1,000 ppm	Specific applications have more restrictive levels.
Polybrominated biphenyl (PBB) flame retardants	0.1% or 1,000 ppm	Any detectable level must be reported.
Polybrominated diphenyl ether (PBDE) flame retardants. Note: IBM includes Decabromodiphenyl ether in this category	0.1% or 1,000 ppm	Any detectable level must be reported.
Bis (2-ethylhexyl) phthalate (DEHP)	0.1% or 1,000 ppm	Specific applications have more restrictive levels.
Butyl benzyl phthalate (BBP)	0.1% or 1,000 ppm	Specific applications have more restrictive levels.
Dibutyl phthalate (DBP)	0.1% or 1,000 ppm	Specific applications have more restrictive levels.
Diisobutyl phthalate (DIBP)	0.1% or 1,000 ppm	Specific applications have more restrictive levels.

Note:

1 - Certain substances affected by the European Commission's Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) are already restricted by other regulations at concentration levels that are more stringent than those associated with RoHS compliance. Lenovo Engineering Specification 41A7731 provides the detailed requirements for these substances as defined by certain existing legislation and/or Lenovo internal standards.

2 - Test methodology for RoHS substances must be in accordance with the latest version of IEC 62321 Electrotechnical products – Determination of levels of six regulated substances (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers) as referred to in EN50581:2012, Technical Documentation for the Assessment of Electrical and Electronic Products with Respect to the Restriction of Hazardous Substances.

2.4 Exemptions

The following are the applications which are exempt from the requirements of RoHS as cited by the EU Directive, and subsequent amendments. The prohibition, as stated in Section 2.3, is in place for all other applications. Lenovo has determined some of the exemptions will be allowed for Lenovo products. This information is noted by the exemption. Where specified by Lenovo in the procurement documents some of these exemptions may still be used when the order is for spare parts for the repair and reuse of equipment placed on the market prior to a specific date.

The exemptions in **Table 2** were set to expire on July 21st, 2016. Currently these exemptions have been submitted for extension. Under the RoHS-2 Directive, exemptions remain in effect until a decision is made on the renewal applications that have been submitted. If notification is received from the EU regarding exemption expirations, Lenovo will assess and update this specification and table as necessary.

Note: A table providing an overview of Annex III and IV exemptions, including their validity status and submitted exemption requests is available for download [here](#).

Table 2: ROHS Exemptions			
Exemption No.	Description	Current EU Expiration Date	Current Status
5(b)	Lead (Pb) in glass of fluorescent tubes not exceeding 0.2% by weight		Extension requested
6(a)	Lead (Pb) as an alloying element in steel for machining purposes and in galvanized steel containing up to 0.35% lead by weight	Various dates, see next column and next row. Information technology equipment is generally in Category 3	Expires 1 July 2019 for Categories 1 to 7 and 10 Expires 21 July 2021 for Categories 8, 9 and 11
6(a)-I	Lead as an alloying element in steel for machining purposes containing up to 0.35% lead by weight and in batch hot	21-Jul-21	Expires 21 July 2021 for Categories 1 to 7 and 10

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	dip galvanised steel components containing up to 0.2% lead by weight		
6(b)	Lead (Pb) as an alloying element in aluminum containing up to 0.4% lead by weight	Various dates, see next column and next row. Information technology equipment is generally in Category 3	Expires 1 July 2019 for Categories 1 to 7 and 10 Expires 21 July 2021 for Categories 8, 9 and 11
6(b)-I	Lead as an alloying element in aluminium containing up to 0.4% lead by weight, provided it stems from lead-bearing aluminium scrap recycling	21-Jul-21	Expires 21 July 2021 for Categories 1 to 7 and 10
6(b)-II	Lead as an alloying element in aluminium for machining purposes with a lead content of up to 0.4% lead by weight	18-May-2021	Expires 18 May 2021 for Categories 1 to 7 and 10
6(c)	Copper alloy containing up to 4% lead (Pb) by weight	Various dates, see next column and next row. Information technology equipment is generally in Category 3	Expires 21 July 2021 for Categories 1 to 7 and 10 Expires on: 21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11; 21 July 2021 for all other categories and subcategories
7(a)	Lead (Pb) in high melting temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead)	Various dates, see next column and next row. Information technology equipment is generally in Category 3	Expires 21 July 2021 for Categories 1 to 7 and 10 Expires on: 21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11; 21 July 2021 for all other categories and subcategories
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	Various dates, see next column and next row. Information technology equipment is generally in Category 3	Expires 21 July 2021 for Categories 1 to 7 and 10 Expires on: 21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11; 21 July 2021 for all other categories and subcategories
7(c)-II	Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher		Expires 21 July 2021 for Categories 1 to 7 and 10
8(b)	Cadmium and its compounds in electrical contacts		Applies to categories 8, 9 and 11 and expires on: —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.

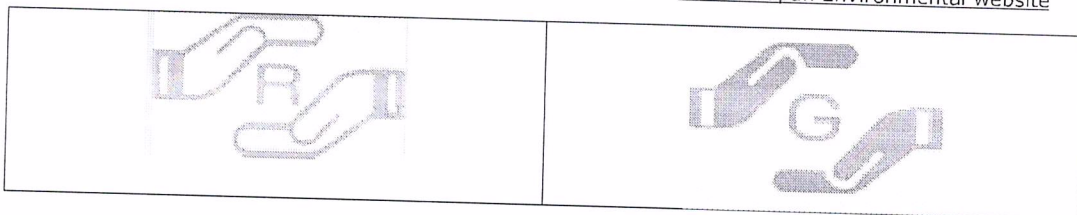
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8(b)-I	<p>Cadmium and its compounds in electrical contacts used in:</p> <ul style="list-style-type: none"> - circuit breakers, - thermal sensing controls, - thermal motor protectors (excluding hermetic thermal motor protectors), - AC switches rated at: <ul style="list-style-type: none"> o 6A and more at 250V AC and more, or o 12A and more at 125V AC and more, - DC switches rated at 20 A and more at 18 V DC and more, and - switches for use at voltage supply frequency ≥ 200 Hz. 		Applies to categories 1 to 7 and 10 and expires on 21 July 2021.'
13(a)	Lead in white glasses used for optical applications	21-Jul-21	Expires on: 21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11; 21 July 2021 for all other categories and subcategories
13(b)	Cadmium and lead in filter glasses and glasses used for reflectance standards		Expires 5 July 2018 for Categories 1 to 7 and 10 Expires 21 July 2021 for Categories 8, 9 and 11
13(b)-(I)	Lead in ion coloured optical filter glass types	21-Jul-21	Valid for Categories 1 to 7 and 10 from 6 July 2018
13(b)-(II)	Cadmium in striking optical filter glass types; excluding applications falling under point 39 of this Annex	21-Jul-21	Valid for Categories 1 to 7 and 10 from 6 July 2018
13(b)-(III)	Cadmium and lead in glazes used for reflectance standards	21-Jul-21	Valid for Categories 1 to 7 and 10 from 6 July 2018
15	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages		Extension requested
24	Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors	Various dates, see next column and next row. Information technology equipment is generally in Category 3	Expires 21 July 2021 for Categories 1 to 7 and 10 Expires on: 21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11; 21 July 2021 for all other categories and subcategories
34	Lead in cermet-based trimmer potentiometer elements	Various dates, see next column and next row. Information technology equipment is generally in Category 3	Expires 21 July 2021 for Categories 1 to 7 and 10 Expires on: 21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11; 21 July 2021 for all other categories and subcategories
37	Lead in the plating layer of high voltage diodes on the basis of a zinc borate glass body		Extension requested
39(a)	Cadmium selenide in downshifting cadmium-based semiconductor nanocrystal quantum dots for use in display lighting applications (less than 0.2 microgram Cd per mm ² of display screen area)	31-Oct-19	Expires for all categories on 31 October 2019

2.5 Product Marking and Information Disclosure

2.5.1 Products for Japan: must meet the requirements of Japanese Industrial Standard for The Marking the presence of the Specific Chemical Substances for electrical and electronic equipment (JIS C 0950:2005, "J-MOSS"). Product development teams must provide product conformity declarations to Lenovo's Japan Environment representative before offering product for sale in Japan.

1. Mandatory "R" mark if the product does not meet the requirements of the RoHS Directive.
2. Optional* green "G" mark to show no such substances are contained (*not required by Lenovo).
3. Product material declaration table in Japanese on external [Lenovo Japan Environmental website](#)



2.5.2 "Korea RoHS": must meet the requirements of The Act for Resource Recycling of Electrical and Electronic Equipment and Vehicles ("Korea RoHS"). Product development teams must provide product conformity declarations to Korea's Country Manager representative before offering product for sale in Korea. Product declarations must be on the Korea ECOAS (<http://www.ecoas.or.kr/>) web page before offering product for sale in Korea.

2.5.3 Products for Turkey: must meet the requirements of Turkey's Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) regulation. Product development teams must provide product conformity declarations to Lenovo's Turkey Country Manager representative, annually beginning June 2009 for submission to the Turkey Ministry of Environment and Forestry.

2.5.4 Products for People's Republic of China: must meet requirements of "Management Methods for Restricted Use of Hazardous Substances in Electronic and Electrical Products" ("China RoHS"). The official documents are in Chinese at <http://www.mii.gov.cn/>

1. Environmental Protection Use Period (EPUP)

Electronic and electrical products, parts, accessories, options, Field Replacement Units (FRUs) and Customer Replaceable Units (CRUs) for "independent commercial sale" in China must be marked with one of two logos:

Logo 1: "e" inside circle indicates product is compliant with Requirements of concentration limits for certain substances in electrical and electronic products GB/T 26572-2011

Logo 2: Environment Protection Use Period (EPUP) in years in circle indicating product is noncompliant (exceeds) Requirements of concentration limits for certain substances in electrical and electronic products GB/T 26572-2011

Exception: Parts purchased for manufacturing (internal to a product) do NOT need to be marked

EPUP Mark artwork, color, size, font specifications are provided in: Labeling Standard SJ/T 11364-2014

- Logo 1 Green Mark:
C:85,M:30,Y:85,K:20; Logo 2 Orange
Mark: C:0,M:75,Y:100,K:0



No "China RoHS" Substances



Contains "China RoHS" Substances
In this example: "10" means EPUP period is 10 years

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- EPUP mark must be on product unless the product total surface area is <5000mm² or is of irregular shape. In this case, the EPUP mark must be included in the product documentation that accompanies the product.
- Minimum 5 mm x 5 mm EPUP mark size
- There are no marking color restrictions as long as the mark is visible (black and white is acceptable). The color green should not be used for Logo 2.
- Lenovo products use EPUP number is "10" for most PC products, monitors and options; "20" for enterprise and mobile products; "5" for batteries. Should the EPUP mark on a product differ from the EPUP mark on product documentation, the mark on the product shall take precedence.

2. Substance Disclosure Table

Products that require **Logo 2** must have a Substance Disclosure Table in the product documentation that accompanies the product (software or paper-based). This includes system products, parts, FRUs, accessories and options for independent commercial sale.

- Text must be in Simplified Chinese (except for "O" and "X")
- Table must include Product Name, Part Name(s), Insert "O" or "X" for each key part. In cases where "X" is shown, Lenovo uses an EU RoHS exemption
- Minimum font size is 1.8 mm
- See the example table below

Example: Substance Disclosure Table

部件名称	有害物质					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
印制电路板组件*	X	O	O	O	O	O
外壳及附件	X	O	O	O	O	O

本表格依据SJ/T 11364的规定编制。
 O：表示该有害物质在该部件所有均质材料中的含量均在GB/T 26572规定的限量要求以下。
 X：表示该有害物质至少在该部件的某一均质材料中的含量超出GB/T 26572规定的限量要求。
 表中标记“X”的部件，皆因全球技术发展水平限制而无法实现有害物质的替代。

2.5.4.1 China RoHS Conformity Assessment System

According to Arrangements for the Implementation of the RoHS Conformity Assessment System for Electrical and Electronic Products (hereinafter referred to as "Arrangements"), which are hereby announced. All products that are included in the Management Catalogue of Electrical and Electronic Products (EEP) that Should Meet the RoHS Standards and are shipped out of factory or imported after November 1, 2019 shall meet the requirements of the Arrangements.

Modes of Conformity Assessment

- The unified voluntary RoHS certification scheme introduced by the State for EEPs (hereinafter referred to as "State-introduced voluntary certification")
- The supplier's declaration of RoHS conformity for EEPs (hereinafter referred to as "SDoC")

The supplier of an EEP included in the Management Catalogue shall choose the State-introduced voluntary certification mode or SDoC mode to complete the RoHS conformity assessment. Product conformity information should be submitted to China RoHS public service platform within 30 days after the product is put on the market. And Enterprise self-declaration and technical support documents are conformity information for SDoC mode.

Labels of Conformity Assessment

The below Design I will be used as the conformity assessment label for the products undergoing the State-introduced voluntary certification, and The identification of the certification authority in the box should be confirmed with the corresponding certification authority. While Design II will be used as the conformity assessment label for the products going through the SDoC procedure.

Vector drawings of basic patterns of green product identification can be downloaded on the information platform. Green product labels can be scaled up or down, and should be clearly identifiable after labeling.

Unless otherwise required by relevant systems or certification bodies, enterprises can independently choose any manufacturing process (such as printing, molding, etc.) to use or display the green product logo on the product body, nameplate, packaging, attached documents (such as instruction manual, qualification certificate, etc.), operating system, electronic sales platform, etc.

The color of green product logo should be white background plate, green pattern.



Design II



Design I

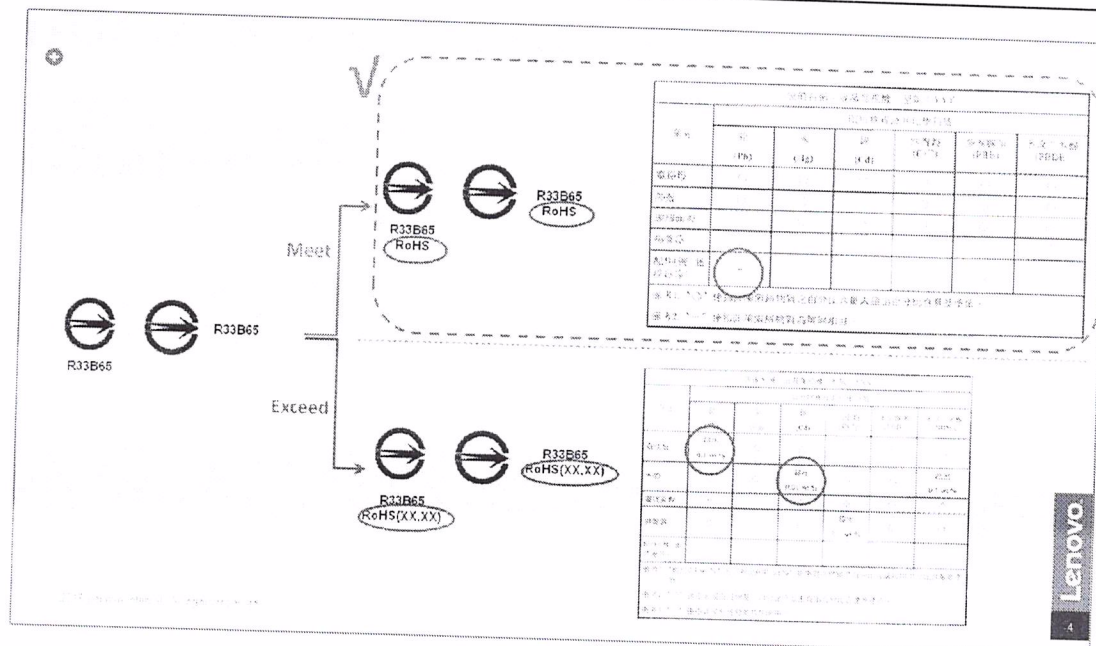
For China RoHS and China RoHS Conformity Assessment related requirement, please refer to <http://www.cesi.cn/rohs/page/fgptbz.jsp?catalog=/001/001-008/001-008-006/001-008-006-001>

2.5.5 Vietnam RoHS: must meet the requirements of Circular, provisionally stipulating allowable limit contents of a number of toxic or hazardous chemicals in electric or electronic products ("Vietnam RoHS"). Product development teams can choose one of following disclosure to show the information on the allowable limits of restricted substances before offering product for sale in Vietnam:

- Upload on Website of company
- User's guide / Instruction manual of product
- Information in electronic form (e.g. CD)
- Printing on the product or packaging

2.5.6 Taiwan RoHS: Must meet the requirements for the certified national standards, Guidance for the reduction of restricted chemical substances in electrical and electronic equipment (CNS15663). This provides the product categories, types of restricted hazardous substances, quantity standards and standardisation methods.

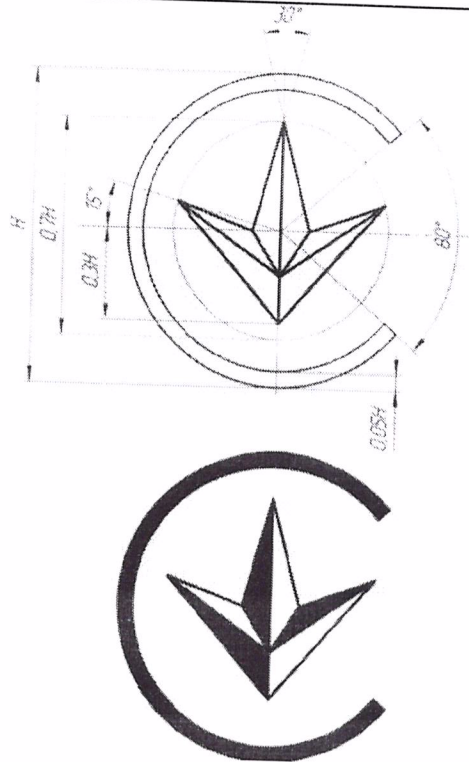
The presence restricted substances requires the use of the following mark and disclosure table on the body, packages, stickers, or user documentation:



2.5.7 Ukraine RoHS: Must meet the requirements in accordance with Decree #139 of the Council of Ministers of Ukraine. This provides the product categories, types of restricted hazardous substances, quantity standards and standardization methods.

Beginning July 23, 2018 the national conformity mark of Ukraine must be placed directly on the EEE or on a nameplate with the technical specifications of the equipment. The mark must be visible, clear and indelible. If this is not possible or feasible due to the nature of the product, then the national conformity mark must be placed on the packaging and the accompanying documentation.

The general principles of placing the national mark of conformity are set out by Decree No. 1184, 2015. The Decree provides for the description of the national mark of conformity and the rules of its application.



3.0 REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation

3.0.1 Substances of Very High Concern (SVHC) in Articles - Reporting Requirements

Lenovo requires suppliers to identify if any Substances of Very High Concern (SVHC) present in an Article (Deliverable or Sub-Deliverable as defined by latest EU Article definition) at or above the 0.1% weight by weight (w/w) concentration and report the name and CAS number of the SVHC candidate and the quantity on the IPC 1752A XML Full Material Disclosure (FMD) via the Green Data Exchange (GDx), refer to [Lenovo Guide to Full Material Disclosures \(Version 2\)](#), for the Deliverable/Sub-Deliverable.

The current candidate list of REACH SVHC as published by the EU is located at:

http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp.

This list is subject to change by the European Chemicals Agency (ECHA); contains 209 unique substances/entries on the date this specification was published. Also refer to Lenovo Engineering Specification 41A7731 Annex DD for the list of SVHC Candidate Substances as of the date of this document.

If an SVHC is present in a Deliverable at or above the reporting concentrations, the Supplier must provide a customer communication to Lenovo meeting the requirements of Article 33 of the EU REACH Regulation.

EU REACH Regulation Number 1907/2006 can be found at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02006R1907-20140410>

The EU provides guidance documents for REACH, specifically guidance documents for Substances in Articles as well as the candidate list for SVHC at http://guidance.echa.europa.eu/guidance_en.htm. Additional information about REACH can be found at the European Chemicals Agency web site at <http://echa.europa.eu>

3.0.2 Restricted Substances in Articles (Annex XVII) - Reporting Requirements

Lenovo requires suppliers to identify if any Restricted Substances (Annex XVII) present in an Article (Deliverable or Sub-Deliverable as defined by latest EU Article definition) at or above the prescribed weight by weight (w/w) concentration (ranging from 0-0.1%) and report the name and CAS number of the SVHC candidate and the quantity on the IPC 1752A XML Full Material Disclosure (FMD) via the Green Data Exchange (GDX), refer to [Lenovo Guide to Full Material Disclosures \(Version 2\)](#), for the Deliverable/Sub-Deliverable.

The current candidate list of REACH Restricted Substances as published by the EU is located at:

<https://echa.europa.eu/substances-restricted-under-reach>.

This list is subject to change by the European Chemicals Agency (ECHA); contains 70 unique substances/entries on the date this specification was published. Also refer to Lenovo Engineering Specification 41A7731 Annex DD for the list of SVHC Candidate Substances as of the date of this document.

If a Restricted Substance is present in a Deliverable at or above the reporting concentrations, the Supplier must provide a customer communication to Lenovo meeting the requirements of Article 33 of the EU REACH Regulation.

EU REACH Regulation Number 1907/2006 can be found at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02006R1907-20140410>

The EU provides guidance documents for REACH, specifically guidance documents for Substances in Articles as well as the candidate list for SVHC at http://guidance.echa.europa.eu/guidance_en.htm Additional information about REACH can be found at the European Chemicals Agency web site at <http://echa.europa.eu>

4.0 Definitions

REACH: an acronym for the European Commission Regulation Number 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of CHemicals.

RoHS: European Union Directive 2011/65/EU restriction of the use of certain hazardous substances in new electrical and electronic equipment that became effective July 1, 2006.

Substance(s) of Very High Concern (SVHC)

1. Substances meeting the criteria for classification in accordance with EU Directive 67/548/EEC:
 - Carcinogenic category 1 or 2
 - Mutagenic category 1 or 2
 - Toxic for reproduction category 1 or 2;
2. Substances which are persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) in accordance with the criteria set out in Annex XIII of the EU REACH Regulation;
3. Substances- such as those having endocrine disrupting properties or those having PBT properties or vPvB properties which do not fulfill the criteria of 2 above - for which there is scientific evidence of probable serious effects to human health or the environment which give rise to an equivalent level of concern to those of other substances listed in 1 or 2 and which are identified on a case-by-case basis in accordance with the procedure set out in Article 59 of REACH. This definition is from the EU REACH Regulation, Article 57.

Article - an object composed of one or more substances or mixtures which during production is given a special shape, surface or design which determines its function to a greater degree than does its chemical composition. Every single component in a product can also be defined as an article. This definition is from EU Regulation 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Deliverable(s): any tangible item(s) delivered by or for a Supplier to Lenovo in accordance with a purchase contract or other agreement with Lenovo. Deliverables include, but are not limited to,

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components, materials, parts, and products.

Electronic Product Environmental Assessment Tool (EPEAT): based upon IEEE Standard 1680 for the Assessment of Personal Computer Products (1680). Refer to: <http://www.epeat.net/>

Intentionally added: deliberate use in a product, material, part, assembly

Homogenous material: of uniform composition throughout (e.g., plastics, ceramics, glass, metals, alloys, resins, coatings, solder, flux).

Mechanically disjointed: Separated by mechanical actions such as unscrewing, cutting, crushing, grinding, and abrasive processes

ppm = parts per million = mg / kg. Mass of substance as a percentage of the homogenous material, not the weight of substance in the entire part or product unless otherwise noted. 1000 ppm = 0.1%; 100 ppm = 0.01% by weight

Preparation: a mixture or solution composed of two or more substances, for example paint, lubricant or ink. This definition is found in the EU Council Directive relating to restrictions on the marketing and use of certain dangerous substances and preparations and EU Regulation 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Substance: a chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition. This definition is found in the EU Council Directive relating to restrictions on the marketing and use of certain dangerous substances and preparations and EU Regulation 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). Substance includes such examples as ethanol and metals. Note: metals are included here not in the form of a part or product such as a heat sink or sheet metal cover but as a metal such as aluminum or aluminum alloy. Substance goes beyond a pure chemical compound defined by a single molecular structure. The definition of the substance includes different constituents such as impurities. Also note the word "substance" is used throughout this specification, only the "Substance" with a capital letter refers to this specific definition.

Threshold level: Concentration limit above which the presence of a substance in a material or product must be declared.

Appendix: Guidance: RoHS summary checklist				Requirement Met	
1. General				Yes	No
a. Lenovo Environmental Specifications 41A7731, 417733	Requirement:	Mandatory for new Lenovo brand products, materials, parts and assemblies incorporated into Lenovo Brand products worldwide*.			
	Affected Parts:	Electronic Hardware parts / Products			
	Supplier must declare compliance by:	Lenovo Supplier Material Declaration			
b. European Union RoHS Compliance	Requirement:	Mandatory for new Lenovo brand products, materials, parts and assemblies incorporated into Lenovo Brand products worldwide*.			
	Affected Parts:	New electronic Hardware products and parts. Does not apply to spare parts for equipment put on the market before July 1, 2006, batteries.			
	Supplier must declare compliance by:	Lenovo Supplier Material Declaration			
c. "China RoHS" Compliance	Requirement:	Mandatory for products offered for sale in the People's Republic of China			
	China Affected Parts:	Electronic hardware parts / products with batteries,			
	Supplier must declare compliance by:	1. EPUP Mark on the product/option (or on the Pubs if the product is small or of irregular shape) 2. Substance Disclosure Table inside the product box shipping into China (must be in Chinese, except "O", "X") 3. Date of manufacture in YYYY-MM-DD format on the product or on the product's sales package 4. "China RoHS" Packaging Recycle Marks			
d. "J-Moss" Compliance	Requirement:	Mandatory for products imported into or manufactured in Japan			
e. "Turkey RoHS" Compliance	Requirement:	Mandatory for products offered for sale in the Republic of Turkey			
	Affected parts:	New products, options and parts must comply with Turkey RoHS material restrictions (same as European Union RoHS material restrictions)			
	Supplier must declare compliance by:	Lenovo Supplier Material Declaration Keep all information and documents showing that products they sale to Lenovo meet the technical criteria mentioned in this Regulation for 5 years starting from the date the product is released to the market. Retain information in Lenovo Filenet(ECM) -Worldwide Supplier Material Declarations			
f. "Korea RoHS" Compliance	Requirement:	Mandatory for products for Korea. Product Declaration required on Korea website before product is offered for sale			

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Appendix: Guidance: RoHS summary checklist			Requirement Met	
g. Supplier RoHS-compliance	Supplier responsibility	Mandatory. Supplier maintains effective compliance process including technical documentation which demonstrates actions to verify RoHS-compliance. Upon request by Lenovo the supplier will verify compliance of materials, parts, components, and/or products to Lenovo's RoHS Specification via analytical testing or other suitable means.		
h. Lenovo approved Lead (Pb)-free solder	Supplier	Lenovo approved lead (Pb)-free solders: Tin-silver-copper (Sn-Ag-Cu (SAC)) solder. Other lead (Pb)-free solders must be approved by Lenovo, on a case by case basis		
i. Lenovo approved Lead (Pb)-free printed circuit board finish	Supplier	. Lenovo approved lead (Pb)-free Printed Circuit Boards finishes: Organic Solder Preservatives (OSP). Other materials may be approved by Lenovo, on a case by case basis		
j. Whisker Mitigation	Supplier	Suppliers shall implement whisker growth countermeasures. Reference: <u>JEDEC Standard JESD22-A121</u> Lenovo reserves the right to request Supplier tin whisker test data		

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Revision History

Version	Date	Change Description
0	Jun 2006	Initial issue
1	Nov 2006	Added EU RoHS exemptions 22-29, Revised Cd threshold from 75 to 100 ppm, Added requirement for Supplier Test Report upon request, Defined OEM-contract manufacturer responsibility for Supplier Material Declaration, Added reference to China RoHS, J-Moss, US RoHS regulations
2	Jun 2007	Updated to include systems, printers, options, visual display devices, Deleted expired RoHS exemption for Cr6, Updated Packaging Specification Reference
3	Dec 2007	Added reference to Korea RoHS Declaration, ppm calculation, exemption 9a may not be used, Added Consumer product signoff
4	Aug 2008	EC M07149H. Added Lenovo RoHS Checklist, China RoHS Supplier Letter, J-Moss marks.
5	October 2008	Cr6 threshold changed to intentionally added; corrected typo (Table 1: 0.01 corrected to 0.1 for lead), added reference to Turkey RoHS effective June 2009); added 3 new RoHS exemptions 30. Cadmium alloys as electrical/mechanical solder joints to electrical conductors located directly on the voice coil in transducers used in high-powered loudspeakers with sound pressure levels of 100 dB (A) and more. 31. Lead in soldering materials in mercury free flat fluorescent lamps (which e.g. are used for liquid crystal displays, design or industrial lighting). 32. Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes
6	March 2010	Added REACH information (requirements, SVHC listing, etc.); added/updated EU RoHS exemptions 33-38 (Cadmium, Lead, Mercury); updated Turkey RoHS information.
7	September 2012	Updated RoHS exemption list; updated REACH SVHC listing
8	September 2013	Updated and included other jurisdictions with RoHS requirements. Updated RoHS exemption list per Directive 2011/65/EU. Updated REACH SVHC listing per 20 June 2013 Candidate List. Updated Environmental Protection Use Period (EPUP) information to reflect current regulation requirements. Added information describing Vietnam RoHS requirements. Updated EU Directive to reflect the current version.
9	July 2014	Updated REACH SVHC listing per 16 June 2014 Candidate List
10	March 2015	Updated REACH SVHC listing per 17 December 2014 Candidate List. Update: 600ppm allowance for PBBs, PBDEs, excluding DecaBDE in PCC recycle and plastic resins.
11	August 2015	Added 4 phthalates per new Directive (EU) 2015/863 to amend Annex II to EU RoHS 2 (Directive 2011/65/EU). Updated REACH SVHC listing per 15 June 2015 Candidate List
2016-1	March 2016	Updated REACH SVHS listing per 17 December 2015 Candidate List. Added Taiwan RoHS mark and Disclosure table information.
2016-2	October 2016	Added: Section 2.3 Substances Prohibited from Use Updated: Table 1: EU RoHS Maximum Concentration Values (MCV) Added: Section 2.4 Exemptions Added: Table 2: ROHS Exemptions Removed: Table 2. Lenovo Maximum Concentrations for Substances of Very High Concern (SVHC) Revised: Section 3 to refer to ECHA online candidate list of SVHC Update: Lenovo Guide to Full Material Disclosure (Version 2); new link Update: Lenovo Supplier Material Self-Declaration; new link
2017-1	March 2017	Update/corrected: Table of Contents. Update: Removed RoHS exemptions 13(b), 34, 38 that were not renewed by the EU. Update: Section 3 – number of unique substances in SVHC candidate list (173). Update: Taiwan RoHS mark and Disclosure table information.
2018-1	April 2018	Update: Section 3 – number of unique substances in SVHC candidate list (181).
2018-2	September 2018	Update: Added Section 2.5.7 – Ukraine RoHS requirements. Update: Section 3 – number of unique substances in SVHC candidate list (191).
2018-3	November 2018	Update: Table 2: RoHS Exemptions – expiration dates for multiple exemptions.
2019-1	January 2019	Update: Added reference to RoHS 3 effective date for 4 phthalates (DEHP, DPB, BBP, DIBP). Update: Section 3 – number of unique substances in SVHC candidate list (197). Update: Listed a link to a table providing an overview of Annex III and IV exemptions, including their validity status and submitted exemption requests Update: Hyperlinks for Lenovo Guide to Full Material Disclosures (Version 2), Lenovo Supplier Material Self-Declaration, Lenovo Japan Environmental website, EU REACH Regulation Number 1907/2006

Lenovo RoHS/REACH Specification 41A7733

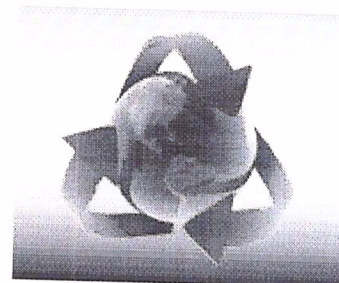
2019-2	September 2019	Update: Various url's and hyperlinks to new Lenovo sustainability web pages Update: Added sec 2.5.4.1 China RoHS Conformity Assessment System Update: Section 3 - number of unique substances in SVHC candidate list (201).
2020-1	May 2020	Update: Section 3 - number of unique substances in SVHC candidate list (205). Update: Section 3 - added REACH Restricted Substance requirement
2020-2	June 2020	Update: Section 3 - number of unique substances in SVHC candidate list (209).

MEIO AMBIENTE

[▼ Produtos Verdes \(Em Inglês\)](#)[▼ Combate Às Alterações Climáticas](#)

Compromisso com o Meio Ambiente

A Lenovo está comprometida com a questão ambiental em todas as suas atividades, do projeto à produção de seus equipamentos, na utilização de sua tecnologia por nossos clientes e no descarte final de seus produtos. A Política Corporativa da Lenovo relacionada ao meio ambiente (em inglês) é suportada pelo sistema de gestão ambiental global, que é fundamental para a empresa alcançar resultados consistentes como a liderança ambiental e a proteção do meio ambiente em todas suas operações no mundo inteiro.



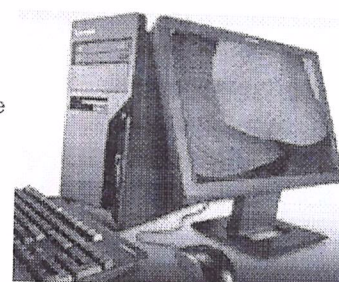
Compromisso com a Sustentabilidade

A responsabilidade ambiental é apenas um aspecto do programa de sustentabilidade global da Lenovo. Sustentabilidade para a Lenovo significa cuidar a longo prazo da saúde econômica, social e ambiental da nossa empresa e das comunidades em que atuamos. A Lenovo é uma empresa global que demonstra responsabilidade social em todos seus negócios.

Saiba mais sobre as iniciativas de sustentabilidade da Lenovo, acessando o nosso Relatório de Sustentabilidade 2009 (em inglês).

Produtos verdes (em inglês)

A liderança de produtos verdes é um componente fundamental da política ambiental da Lenovo. Esta política requer desenvolvimento, fabricação e comercialização de produtos que são eficientes energeticamente e que minimizem o seu impacto sobre o meio ambiente. A Lenovo é líder da indústria em relação a produtos com eficiência energética, devido ao uso de materiais que não prejudicam o meio ambiente e de embalagens recicláveis.



Combate às Alterações Climáticas

**OPINIÃO**

da responsabilidade que cada empresa tem na emissão de gases poluentes na natureza, a Lenovo fixou uma meta voluntária em 2007 para melhorar sua eficiência operacional em relação ao carbono em 10% até 2012. Mais

[CHAT](#)

informações disponíveis em nossos Relatórios de Sustentabilidade.

A Lenovo está fazendo a sua parte para combater as alterações climáticas, mas ela também precisa da ajuda da comunidade global. Fizemos algumas parcerias com organizações não-governamentais que estão bem posicionados para nos ajudar nessa missão. Com o suporte dessas organizações nós poderemos colaborar no combate às alterações climáticas em nosso planeta e na redução das emissões de carbono.

A Lenovo foi a primeira empresa a receber uma certificação EPEAT Gold para um monitor e os nossos esforços demonstram o nosso compromisso com a questão ambiental.

Climate Savers Computing Initiative

A Lenovo é a patrocinadora da Climate Savers Computing Initiative (em inglês), um grupo sem fins lucrativos formado por consumidores, empresas e organizações que se dedicam à redução das emissões de gases e ao aumento da eficiência energética dos produtos



Climate Group

A Lenovo é um membro de apoio do Climate Group. O objetivo primário da Climate Group é ajudar o governo e as empresas a reduzir a emissão de carbono em um futuro próximo. Para alcançar este objetivo, eles criaram uma coligação de governos e empresas globais mais influentes no mercado - todos empenhados no combate das alterações climáticas.



Responsabilidade Social

Meio ambiente

Cadeia de fornecimento global

Investimentos Sociais

Instituto Ayrton Senna

DESCARTE DE UM PRODUTO LENOVO FORA DE USO

Equipamentos elétricos e eletrônicos não devem ser descartados em lixo comum, mas enviados a pontos de coleta, autorizados pelo fabricante do produto para que sejam encaminhados e processados por empresas especializadas no manuseio de resíduos industriais, devidamente certificadas pelos órgãos ambientais, de acordo com a legislação local.



A Lenovo possui um canal específico para auxiliá-lo no descarte de produtos. Caso você possua um produto Lenovo para o nosso SAC ou encaminhe um e-mail para reciclar@lenovo.com informando o modelo, e enviaremos as instruções para o descarte correto e gratuito do seu computador ou baterias de notebooks



OPINIÃO

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FAÇA PARTE DESSA INICIATIVA!**CALCULADORA DE ENERGIA**

A Calculadora de Energia Lenovo faz cálculos com base em testes internos da Lenovo, a fim de determinar a economia de energia em desktops, notebooks e monitores Lenovo. A economia de energia baseia-se em um modelo de uso estimado para várias configurações. Custos por kilowatt-hora são baseados em cálculos do dólar E.U. 2007. Preços por país baseiam-se em informações publicadas pelo Departamento de Energia dos Estados Unidos em 2007. Fatores de emissão de CO2 são provenientes de dados mais recentes publicados em 2002 pelo Departamento de Energia dos Estados Unidos. A ferramenta permite que você selecione a opção "Customizar" e insira o seu custo específico, o fator de emissão de CO2 e perfil de uso. Por favor, selecione a opção "Mais Informações" na ferramenta para obter mais detalhes sobre a utilização desses recursos. A Calculadora de Energia Lenovo faz cálculos estimados e deve ser somente utilizada como um guia. A Lenovo não garante a economia de energia pois a forma de utilização dos produtos Lenovo podem variar.

**JUNTE-SE A LENOVO**

Digite o seu e-mail

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Brazil

- + SOBRE A**
LENOVO
- + SUPORTE E**
GARANTIA
- + PRODUTOS**
- + RECURSOS**
- + PME**

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**OPINIÃO****CHAT**

RESPONSABILIDADE SOCIAL

▼ Qualidade E Segurança Dos Produtos
▼ Ética Profissional

▼ Foco Em Pessoas

Compromisso com a responsabilidade social

A Lenovo está comprometida no desenvolvimento de PCs excepcionalmente projetados, ajudando a mudar a maneira como as pessoas ao redor do mundo utilizam a tecnologia. Assim como a Lenovo se dedica a fornecer tecnologias inovadoras, nós estamos igualmente empenhados a garantir que nossos produtos, nossos colaboradores, e nossos fornecedores estão seguindo os compromissos que a empresa assumiu em relação a práticas socialmente responsáveis.

A Lenovo considera como seus principais valores a satisfação do cliente, a inovação, o espírito empreendedor e a integridade. Buscamos aplicar esses valores centrais em todos os aspectos de nosso negócio, em políticas e processos nas áreas de qualidade e segurança dos produtos, bem-estar dos funcionários, gestão da cadeia de fornecimento global, comportamento ético das empresas, investimentos sociais e questões ambientais. Embora a Lenovo já considerasse muitos desses valores antes de adquirir a divisão de PCs da IBM em 2005, as políticas da empresa atualmente incorporam as melhores práticas da Lenovo e da IBM. Todos os funcionários e fornecedores da Lenovo trabalham juntos para promover e aplicar estes valores no dia-a-dia.

Qualidade e segurança dos produtos

Como a qualidade da Lenovo está relacionada com o valor de nossos produtos, nós estamos continuamente desenvolvendo, aprimorando e avaliando iniciativas de segurança.

A Lenovo está focada na segurança em todo ciclo de vida de seus produtos, desde a produção, transporte, utilização, serviço e a eliminação. Nós nos esforçamos para garantir que nossos produtos cumpram todos os requisitos legais de segurança e de ergonomia.

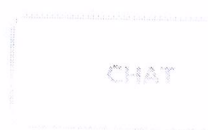


Através da ênfase em segurança e qualidade dos produtos, a Lenovo tem como objetivo alcançar a satisfação de seus clientes, além de oferecer produtos de qualidade, soluções e serviços.

Foco em pessoas



Nossos funcionários são nosso maior patrimônio. Por esse motivo, a Lenovo está empenhada em proporcionar um ambiente de trabalho seguro e saudável. Além de equipar nossos funcionários com produtos e equipamentos seguros, a Lenovo



também investe na melhoria contínua de processos e controles para evitar acidentes de trabalho, lesões e doenças.

A Lenovo oferece remuneração competitiva e obedece aos requisitos aplicáveis a cada país e região onde atua. Consequentemente, a Lenovo é reconhecida como uma entidade líder em todo o mundo.



Ética profissional

A Lenovo está comprometida com os mais altos padrões de integridade e responsabilidade, oferecendo orientação aos seus empregados em uma ampla gama de questões éticas, tais como relatórios de condutas inadequadas, respeito e proteção a propriedade intelectual, negociação de valores mobiliários e conformidade com as relações governamentais.

Os funcionários são orientados a comunicar qualquer indício de fraude, a conduta empresarial que não seja ética, violação das leis, ameaça à saúde ou segurança ou qualquer outra violação de políticas corporativas.



A Lenovo respeita os direitos de propriedade intelectual de outras empresas e de indivíduos, tendo liderado a luta contra a pirataria na China. Em meados de 2005, a empresa começou a promover o uso e os benefícios de licença válida de produtos Microsoft ® através de novas vendas, marketing e programas de treinamento na China. A Lenovo foi a primeira empresa fabricante de PCs a dar esse passo importante, e essa ação obrigou outros líderes do mercado chinês a seguir o exemplo.

Responsabilidade Social

Meio ambiente

Cadeia de fornecimento global

Investimentos Sociais

RECURSOS

Iniciativas Verdes da Lenovo (em inglês)

Relatório de Sustentabilidade 2008 (em inglês)

Relatório de Sustentabilidade 2009 (em inglês)

Resumo do Relatório de Sustentabilidade 2009 (em inglês)

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Escolha Verde, Escolha Lenovo (em inglês)

Política Corporativa em relação ao bem-estar dos funcionários Lenovo (em inglês)

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SELECCIONE O PAÍS

SOBRE A
LENOVOSUPORTE E
GARANTIA

PRODUTOS



RECURSOS



PME

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