### MINISTRY OF INDUSTRY & TRADE

## SOCIALIST REPUBLIC OF VIETNAM Independence-Freedom-Happiness

No.: 30/2011/TT-BCT

Hanoi, August 10, 2011

#### **CIRCULAR**

## Temporary stipulations for permissible toxic chemical content limits in electrical products

Pursuant to Government Decree No. 189/2007/ND-CP dated December 27, 2007 specifying functions, tasks, powers and organizational structure of the Ministry of Industry and Trade and pursuant to Government Decree No. 44/2011/ND-CP dated June 14, 2011 on amendments and supplements to Article 3 of Decree No. 189/2007/ND-CP,

Pursuant to the Law on Chemicals dated November 21, 2007,

The Minister of Industry and Trade temporarily stipulates permissible content limits of some toxic chemicals in electronic and electrical products as follows:

### Article 1. Scope of control

- 1. This circular temporarily stipulates the permissible content limit of some toxic chemicals in electronic and electrical products traded on the Vietnam market.
  - 2. This Circular does not cover the following products:
  - a) Electrical and electronic components and batteries,
- b) Spare parts for repair, reuse or upgrade of electronic and electrical products,
- c) Electronic and electrical products used as gifts, souvenirs, goods for exhibition or for introducing products, hand-baggage, movable assets of organizations and individuals, goods for temporary import or re-export and goods in transit,
- d) Electronic and electrical products traded on the Vietnam market prior to the date that this Circular becomes effective.

### **Article 2.** Entities subject to this Circular

This Circular applies to organizations and individuals that produce, trade and import electronic and electrical products.

### **Article 3.** Interpretation of terms

Terms used in this Circular are construed as follows:

- 1. Permissible content limit of some toxic chemicals in electronic and electrical products indicates the maximum permissible percentage of such substances in homogeneous material that constitutes electronic and electrical products.
- 2. *Homogeneous material* indicates material that cannot be divided into other materials through the use of mechanical methods.
- **Article 4.** Electronic and electrical products must meet permissible content limits.

Electronic and electrical products traded on the Vietnam market must meet permissible content limits for toxic chemicals that are provided in the attached Appendix 2, including the following product groups:

- 1. Large household appliances,
- 2. Small household appliances,
- 3. Equipment used for information technology and communication,
- 4. Consumer equipment,
- 5. Lighting equipment,
- 6. Electronic and electrical tools (excluding large fixed tools used in industry),
  - 7. Toys, entertainment equipment and sport equipment,
  - 8. Automatic measuring devices.

### **Article 5.** Toxic chemicals limited in electronic and electrical products

- 1. Toxic chemicals that are limited in electronic and electrical products include: Lead (Pb), Cadmium (Cd), Mercury (Hg), Chromium of valence 6 (Cr6+), Polybrominated biphenyl (PBB) and Polybrominated diphenyl ethers (PBDEs).
- 2. Content of toxic chemicals in electronic and electrical products traded on the Vietnam market must not exceed permissible limits provided in Appendix 1, except for cases in the attached Appendix 3.
- 3. An electronic or electrical product is considered to be in compliance with permissible content limits for toxic chemicals if all homogeneous materials in that product comply with permissible toxic chemical content limits.
- 4. When no corresponding Vietnamese Standard is available for assessing toxic chemical content in electronic and electrical products, the current standard of IEC 62321: Electro-technical products Determination of levels of six regulated substances will be applied temporarily.

**Article 6.** Responsibilities of organizations and individuals that produce and import electronic and electrical products

- 1. Ensuring that toxic chemicals contained in manufactured or imported electronic and electrical products do not exceed permissible limits provided in the attached Appendix 1.
- 2. Organizations and individuals that produce and import electronic and electrical products must publish general information as follows: electronic and electrical products manufactured and imported by organizations and individuals comply with regulations contained in this Circular on permissible toxic chemical content limits. Disclosure of information must be in one of the following forms:
  - a) Posting on the website of the concerned organization or individual,
- b) Information included in product use instruction documents, usually in the form of user manuals or instruction flyers that are attached to products,
  - c) Electronic information (CDs, etc.),
  - d) Printing directly on products or packages.
- 3. In all cases, organizations and individuals that produce and import electronic and electrical products are responsible for following laws related to the accuracy of published information that are stipulated in Clause 2, Article 6 of this Circular
- 4. Developing and maintaining a record of the management of toxic chemical content in electronic and electrical products traded on the Vietnam market that is to be submitted to competent authorities on request. This management record includes: list of raw materials, certificate of quality verification for raw materials and components and the process used to manage toxic chemical content.
- **Article 7.** Responsibilities of organizations and individuals that trade in electronic and electrical products

Organizations and individuals that distribute and retail electronic and electrical products are allowed to trade only products that comply with information on permissible content limits provided in Clause 2, Article 6 of this Circular.

### **Article 8**. Responsibilities of state management agencies

- 1. Department of Chemical Products
- a) Leading cooperation with relevant agencies in monitoring organizations and individuals that produce and import electronic and electrical products that do not meet permissible content limits provided in this Circular,
- b) Assigning accredited laboratories that meet requirements of ISO/IEC/17025: General requirements for the competence of testing and calibration laboratories that test criteria in Appendix 1 attached to this Circular. Such assignment of testing laboratories shall be implemented in accordance with Circular No. 09/2009/TT-BKHCN dated April 08, 2009 of the Ministry of Science and Technology guiding requirements, orders and procedures for assigning appropriate organizations.

### 2. Market Control Department

Handling violations in accordance with laws for electronic and electrical products traded on the market that do not meet permissible content limits.

### **Article 9**. Implementation effect

- 1. This Circular takes effect from September 23, 2011 and shall be implemented until alternate corresponding National Technical Regulations become available.
- 2. Effective December 1, 2012, manufactured and imported electronic and electrical products shall publish information on permissible content limit of some toxic chemicals in accordance with Clause 2 Article 6 of this Circular.
- 3. Should any problems arise during implementation, organizations or individuals concerned shall notify the Ministry of Industry and Trade in a timely manner so that regulations can be amended and supplemented accordingly.

Recipients:

- Prime Minister, Deputy Prime Ministers;

- Ministries, ministerial-level agencies, Government controlled agencies;

- People's Committees of provinces and cities under direct control of the central Government;
- Department of Examination of Legal Normative Documents (Ministry of Justice);
- Vietnam Electronic Industries Association;
- Government's Website:
- Gazette;
- Ministry of Industry and Trade's Website:
- Ministry of Industry and Trade: Ministerial Leaders, Legal Dept., Science and Technology Dept., Export-Import Dept., Multilateral Trade Policy Dept., Market Control Dept.;
- Filed as archives, administrative documents.

PP. THE MINISTER

**DEPUTY MINISTER** 

Nguyen Nam Hai

# Appendix 1 MAXIMUM CONTENT OF HAZARDOUS CHEMICALS ALLOWED IN ELECTRIC AND ELECTRONIC PRODUCTS

(Attached to Circular No.: 30/2011/TT-BCT of the Ministry of Industry and Trade dated August 10, 2011)

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No.	Chemical	Maximum allowed content
1	Pb	0.1% of total weight
2	Hg	0.1% of total weight
3	Cd	0.01% of total weight
4	Cr <sup>6+</sup>	0.1% of total weight
5	PBB	0.1% of total weight
6	PBDE	0.1% of total weight

### Appendix 2

### ELECTRIC AND ELECTRONIC PRODUCTS IN WHICH HAZARDOUS CHEMICALS ARE REQUIRED TO BE WITHIN REGULATED CONTENT LIMITS

(Attached to Circular No.: 30/2011/TT-BCT of the Ministry of Industry and Trade dated August 10, 2011)

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Product Name	HS code	
1. LARGE HOUSEHOLD APPLIANCES		
Large refrigeration units	8418	
Cooling machines	8418	
Ice makers	8418	
Large equipment used to refrigerate, preserve or store food	8418	
Washing machines	8451	
Clothes dryers	8451	
Dish washers	8422	
Cooking equipment	7323	
Electric cookers	8516	
Electric heaters		
Microwave ovens	8516	
Other large equipment used for cooking or processing food	8516	
Electric appliances used for burning	8516	
Electric appliances used for heating	8516	
Large equipment used for heating rooms or beds	8516	
Electric fans	8414	
Air conditioners	8415	
Other air conditioning or ventilation equipment that operates by blowing or	8415	
suctioning air		

### 2. SMALL HOUSEHOLD APPLIANCES

Vacuum cleaners	8508
Carpet cleaners	8508
Equipment used for sewing, knitting or processing garments (household	8205
tools)	
Irons or other equipment used for ironing clothes	8516
Electric toasters	7321
Electric frying pans	7321
Coffee grinders or makers	8516
Other equipment used for opening or sealing containers or used for	7615
packaging	
Various types of knives	8211
Barber devices	8510
Hair dryers	8516
Electric toothbrushes	9603
Other massage or body care equipment	9019
Watches or other equipment used for measuring, displaying or recording	9102
time	
Wall clocks or other equipment used for measuring, displaying or recording	9105
time	
Electronic balances	8423

### 3. INFORMATION TECHNOLOGY AND COMMUNICATION EQUIPMENT

- Centralized data processors, including:	
Large-scale computers (servers)	8471
Small-scale computers	8471
Printers and copiers	8443
- Personal computers, including:	
Personal computers (CPU, mouse, monitor and keyboard);	8471
Laptops	8471
Notebook computers	8471
Notepad computers	8471
Printers	8443
Copying devices	8443
Calculators	8471
Other products or equipment used for gathering, storing, processing,	
presenting or connecting information by electronic means	
- User and system terminals, including:	
Fax machines	8443
Telegraph sets	8517; 8518
Telephones	8518
Public telephones	8518
Radios	8517
Mobile phones	8517
Products or equipment used for transmitting sounds, images or other	8517
information	

### 4. CONSUMER EQUIPMENT

Radio sets	8527
Televisions	8528
Video cameras (camcorders)	8521
Video recorders	8521
High definition audio recorders	8527
Amplifiers	8523
Musical instruments	92
Other products or equipment used for recording or playing sounds or	
images or other technology used for transmitting sounds or images	

### **5. LIGHTING EQUIPMENT**

Fluorescent light sources, except light sources for family use	8539
Straight fluorescent lamps	8539
Mini fluorescent lamps	8539
High-intensity discharge lamps, including high-pressure sodium lamps and	8539
metal haloid lamps	
Low-voltage sodium lamps	8539
Other lighting equipment or equipment used for distributing or controlling	8539
light, except incandescent lamps	

### **6. ELECTRIC AND ELECTRONIC TOOLS**

Drills	8459
Saws	8461; 8465
Sewing machines	8452
Equipment used for lathing, crushing, polishing, grinding, sawing, cutting,	
clipping, drilling, making holes, ramming, folding, bending or processing	
wood, metal or other materials	
Tools used for riveting, nailing, screwing or removing rivets, nails, screws or	8203
other hand tools	
Tools used for welding (welders, welding stock, electric welding or air	8468
welding)	
Equipment used for spraying or dispersing liquids or gases	8424
Tools used for cutting or clipping trees or used for other gardening activities	8201

### 7. TOYS, ENTERTAINMENT AND SPORT EQUIPMENT

Electric toy cars and train sets	9503
Handheld game consoles	9503
Equipment used for cycling, shaping, running or boat racing and other sport	9506
equipment with electric or electronic components	
Slot machines	9504
Other games that operate with coins or bank cards	9504

### **8. AUTOMATED MEASURING INSTRUMENTS**

Machines used for pouring, sealing or labeling bottles, cans, boxes, bags or	8422
other containers	
Automated measuring instruments used for solid products	8423
Money counters and automated teller machines	9029
Automated product vending machines	8476
General measuring instruments	9029

### Appendix 3

### EXEMPTIONS TO MAXIMUM CONCENTRATION LIMITS FOR HAZARDOUS CHEMICALS SPECIFIED IN APPENDIX 1

(Attached to Circular No.: 30/2011/TT-BCT of the Ministry of Industry and Trade dated August 10, 2011)

No.	Exemption	Application range and period
1	Quantity of mercury in single-pole fluorescent lamps not allowed to exceed (per burner)	
1.1	Used in general-purpose lighting with capacity less than 30W: 5 mg	Expires December 31, 2011. Thereafter, one burner may use 3.5mg until December 31, 2012. After December 31, 2012, each burner may use 2.5mg.
1.2	Used in general-purpose lighting with capacity from 30W to 50W: 5 mg	Expires December 31, 2011. Thereafter, one burner may use 3.5mg.
1.3	Used in general-purpose lighting with capacity from 50W to 150W: 5 mg	
1.4	Used in general-purpose lighting with capacity more than 150W: 5 mg	
1.5	For fluorescent lamps of square or circular styles with tube diameter less than 17mm used in general-purpose lighting	Unlimited use until December 31, 2011. Thereafter, one burner may use 7mg.
1.6	Use for special purposes: 5mg	
2	Quantity of mercury in some types of fluorescent lamps, including:	
2.1	Mercury in straight double pole fluorescent lamps used in general- purpose lighting (per lamp)	
	3-way fluorescent lamps with average life span and tube diameter less than 9mm: 5mg	Expires December 31, 2011. Thereafter, one lamp may use 4 mg.
	3-way fluorescent lamps with average life span and tube diameter greater than or equal to 9mm and less than or equal to 17mm: 5mg	Expires December 31, 2011. Thereafter, one lamp may use 3 mg.
	3-way fluorescent lamps with average life span and tube diameter greater than or equal to 17mm and less than or equal to 28mm: 5mg	Expires December 31, 2011. Thereafter, one lamp may use 3.5 mg.
	3-way fluorescent lamps with average life span and tube diameter greater than or equal to 28mm: 5mg	Expires December 31, 2011. Thereafter, one lamp may use 3.5 mg.
	3-way fluorescent lamps with extended life span (greater than or equal to 2500 hours): 8mg	Expires December 31, 2011. Thereafter, one lamp may use 5 mg.

2.2	Maximum quantity of mercury in other	
	types of fluorescent lamps (per lamp): Straight calcium halophosphate	Expires April 13, 2012.
	fluorescent lamps with tube diameter	Expires April 13, 2012.
	greater than 28mm: 10mg	
	Non-straight calcium halophosphate	Expires April 13, 2016.
	fluorescent lamps (any tube diameter):	Expires April 13, 2010.
	15mg	
	Non-straight 3-way fluorescent lamps	Unlimited use until December 31, 2011.
	with tube diameter greater than 17mm	Thereafter, one lamp may use 15 mg.
	Other lamps used in general-purpose	Unlimited use until December 31, 2011.
	lighting and for special purposes (e.g. induction lamps)	Thereafter, one lamp may use 15 mg.
3	Maximum quantity of mercury in cold	
٥	cathode fluorescent lamps and external	
	electrode fluorescent lamps for special	
	purposes (per lamp):	
3.1	Short type (greater than or equal to 500	Unlimited use until December 31, 2011.
	mm)	Thereafter, one lamp may use 3.5 mg.
3.2	Medium type (greater than 500 mm and	Unlimited use until December 31, 2011.
	less than 1500 mm)	Thereafter, one lamp may use 5 mg.
3.3	Long type (greater than 1500 mm)	Unlimited use until December 31, 2011.
		Thereafter, one lamp may use 13 mg.
4	Quantity of mercury in some other types of lamps, including:	
4.1	Mercury in other types of low-pressure	Unlimited use until December 31, 2011.
	discharge lamps (per lamp)	Thereafter, one lamp may use 15 mg.
4.2	Maximun quantity of mercury in high-	
	pressure sodium lamps used in general-	
	purpose lighting (per burner) among	
	lamps with improved CRI Ra values	
	greater than 60:	
	P < 155 W	Unlimited use until December 31, 2011.
		Thereafter, one lamp may use 30 mg.
	155 W < P < 405 W	Unlimited use until December 31, 2011.
	P>450W	Thereafter, one lamp may use 40 mg. Unlimited use until December 31, 2011.
	P>450W	Thereafter, one lamp may use 40 mg.
4.3	Maximum quantity of mercury in other	Therealter, one lamp may use 40 mg.
1.0	types of high-pressure sodium lamps used	
	in other general-purpose lighting (per	
	burner)	
	P<155 W	Unlimited use until December 31, 2011.
		Thereafter, one lamp may use 25 mg.
	155 W < P < 405 W	Unlimited use until December 31, 2011.
		After December 31, 2011, one lamp may use
		30 mg.
	P greater than 405 W	Unlimited use until December 31, 2011.
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4.4	Mercury in high-pressure mercury lamps	Thereafter, one lamp may use 40 mg. Expires April 13, 2015.

4.5	Mercury in metal halide fluorescent lamps	
4.6	Mercury in other types of discharge	
	lamps used for special purposes not	
	mentioned in this table	
5	Lead in the glass parts of cathode ray	
	tubes, electronic components and	
	fluorescent lamps, including:	
5.1	Lead in glass of cathode ray tubes	
5.2	Maximum quantity of lead in glass of	
	fluorescent lamp tubes must not exceed	
	0.2% of total weight	
6	Lead included as a component of alloy	
	steel:	
6.1	Maximum quantity of lead as a	
	component of alloy steel used for	
	mechanical purposes and in galvanized	
	steel must not exceed 0.35% of total	
	weight	
6.2	Maximum quantity of lead as a	
	component of aluminum alloy must not	
	exceed 0.4% of total weight	
6.3	Maximum quantity of lead in copper alloy	
	must not exceed 4%	
7	Maximum quantity of lead in some other	
	components, including:	
7.1	Lead in high melting temperature solders	
	(e.g. lead-based alloys with 85% or	
	higher lead quantity)	
7.2	Lead in solders of servers, systems,	
	storage devices, network infrastructure	
	equipment for switching, transmission or	
	network management used in	
	telecommunications	
7.3	Electric and electronic devices and	
	components containing lead in glass or	
	ceramics, except dielectric ceramic in	
	capacitors (e.g. with piezoelectric	
	devices) or containing lead in glass or in	
	mixed ceramics	
	Maximum quantity of lead in dielectric ceramic of capacitors with nominal	
	voltage greater than or equal to 125 V	
	(for alternating current) or 250 V (for	
	direct current)	
-	Maximum quantity of lead in dielectric	Expires January 1, 2013. Thereafter, may be
	ceramic of capacitors with nominal	used in spare parts for products that appear
	voltage less 125 V (for alternating	on the market before January 1, 2013.
	current) or 250 V (for direct current)	on the market before balldary 1, 2010.
8	Cadmium and its compounds in the	
	following cases:	
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	Cadmium and its compounds in one-time thermal fuses	Expires January 1, 2012. Thereafter, may be used in spare parts for products that appear on the market before January 1, 2012.
	Cadmium and its compounds in power switches	
9	Maximum quantity of chromium of valency 6 as an anti-corrosion agent in cooling systems made of carbon steel in absorption refrigeration machines must not exceed 0.75% of total weight of the cooling solution	
10	Lead in bearing covers and coupling tubes of compressors containing frozen substance used in heating, ventilation, air conditioning or cooling systems	
11	Lead used in connecting pipe systems	
11.1	Lead used in C-shaped compression connecting pipe systems	May be used in spare parts for products that appeared on the market before September 24, 2010.
11.2	Lead used in other connecting systems, other than C-shaped compression connecting pipe systems	Expires January 1, 2013. Thereafter, may be used in spare parts for products that appear on the market before January 1, 2013.
12	Lead used as coating material for C- shaped thermal conductivity units	May be used in spare parts for products that appeared on the market before September 24, 2010.
13	Lead and cadmium in glass	
13.1	Lead in glass used in optic applications	
13.2	Lead and cadmium in glass filters and glass used as reflection layers	
14	Lead in solders that contain more than two components used as connectors for sockets and microprocessing units with lead content accounting for 80% to 85% of total weight	Expired January 1, 2011. Thereafter, may be used in spare parts for products that appeared on the market before January 1, 2011.
15	Lead in solders for completing electric connections between semiconductor substrates and carriers in integrated circuit switching chipsets	
16	Lead in straight incandescent lamps with silica-coated tubes	Expires September 1, 2013.
17	Halogen lead as radiation-emitting substance in high-density discharge lamps used in specialized capture and copy applications	
17	Lead as active metabolite in fluorescent powder of discharge lamps when used for dye lamps containing phosphorescents such as BSP (BaSi2O5:Pb), with lead content being less than or equal to 1% of total weight	

18	Lead and cadmium in ink used in glass glazing, such as for borosilicate glass and soda-lime glass.	
19	Lead for completing accessory details with thin screw threads, except connections with pitches less than or equal to 0.65 mm	Used in spare parts for products that appeared on the market before September 24, 2010.
20	Lead in solders used for welding multi- layer ceramic capacitors that take the form of holed plates or flat sheets	
21	Lead oxide in surface-conduction electron-emitter display (SED) used in structural components	
22	Lead crystal covers	
23	Cadmium alloy as mechanical or electrical solders for electric wires directly placed on acoustic wires in converters used in high power speakers with more than 100dB sound pressure	
24	Lead in soldering materials of flat non- mercury fluorescent lamps used in liquid crystal displays and industrial lighting	
25	Lead oxide in glass seals used as connectors for argon and krypton laser tubes	
26	Lead in solders used for welding thin bronze wires with diameter less than or equal to 100 µm, used in pressure transformers	
27	Lead in potentiometer units	
28	Lead in plating layer of plating layer high voltage diodes with zinc borate glass bodies	
29	Cadmium and cadmium oxide in glue membrane layers used for binding beryllium oxide to aluminum	
30	Cadmium in II-VI color-changing LED lamps used in display and lighting systems (less than 10 µg Cd per mm² of light emitting area).	Expires July 1, 2014.

#### linh 14/9/11 04:25

**Comment [1]:** The Vietnamese original text is not clear. This is literal translation.