



Chemicals of Concern in Electronics

List of Lists and Regulatory Frameworks



Disclaimer:

This document has been developed within the framework of the Global Environment Facility (GEF) project ID: 9771 on *Global Best Practices on Emerging Chemical Policy Issues of Concern under the Strategic Approach to International Chemicals Management (SAICM)*.

Geneva, 31 March 2020

1 Background, aims and scope

Chemicals in products and hazardous substances within the life cycle of electrical and electronic products have been longstanding emerging policy issues under the Strategic Approach to International Chemicals Management (SAICM). To further advance these issues, a GEF-funded project on “Global best practices on emerging chemical policy issues of concern under SAICM” has been launched in 2019. Amongst others, the activities under the project aim at increasing the ambition of different stakeholders to track and control chemicals along the value chains of electrical and electronic products.

In order to track and control chemicals along the value chains of electrical and electronic products, stakeholders first must identify relevant chemicals to be addressed. Considering the complexity of the chemical world as well as the complexity of value chains in the electronics sector, this important step can be highly challenging.

Nevertheless, many different regulatory bodies have established regulatory frameworks addressing the management of hazardous chemicals. Some of these frameworks specifically address chemicals related to electrical and electronic products, while others address chemicals and chemicals management in a more general manner. In order to support stakeholders in the identification of relevant chemicals in the electronics sector, this document aims at mapping relevant existing regulatory frameworks and activities.

The first part of the document maps existing regulatory frameworks comprising substance-specific provisions for electronic and electrical products. The second part of this document maps existing regulatory frameworks comprising substance-specific provisions for a wider regulatory scope than only electronic and electrical products, but which may also be relevant for the value chain of the electronics sector. For example, a general prohibition of the use of a certain substance applies to a wider scope than only electronic and electrical products but may nevertheless be relevant to the electronics value chain. Countries or regions are listed in alphabetical order.

This “list of lists and regulatory frameworks” is not an exhaustive collection. Rather, it aims to serve as an indicative list and a first point of reference for stakeholders looking to increase their knowledge on substances which may be relevant for the electronics sector. It needs to be noted, that the regulatory provisions under the listed frameworks may be highly specific to country circumstances. Stakeholders are encouraged to consider the specificities of their regulatory systems, definitions and approaches to chemicals regulation. As a consequence, the relevance of the frameworks and listed substances below, to other contexts, needs to be carefully evaluated on a case-by-case basis.

2 List of Lists and Regulatory Frameworks

(1) Regulatory frameworks comprising substance specific provisions and lists with regards to electronic and electrical products and batteries			
Country / Region	Regulation Name	Brief description	Link
China	Administrative Measures on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Products	Restricts the use of certain substances and substance groups for their use in certain electrical and electronic products and establishes labelling requirements. Substances regulated include lead, mercury, cadmium and PBDEs.	(1)
China	Limitation of Mercury, Cadmium and Lead Contents for Alkaline and Non-alkaline Zinc Manganese Dioxide Batteries (GB24427-2009)	-	(2)
EU	Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)	Restricts the use of ten substances and substance groups for their use in the manufacture of various types of electronic and electrical equipment. Substances regulated include lead, mercury, PBDEs and certain phthalates. The regulation also provides a list of specific applications exempted from the restrictions.	(3)
EU	Directive 2006/66/EC of the European Parliament and of the council of 6 September 2006 on batteries and accumulators and waste batteries and accumulators and repealing Directive 91/157/EEC (Batteries directive)	Regulates the manufacturing and disposal of batteries and accumulators in the EU and contains provisions for the use and labelling requirements of certain chemicals in batteries.	(4)
Norway	Regulations on restrictions on the use of hazardous chemicals and other products (product regulations, FOR-2004-06-01-922)	Restricts or prohibits the use of certain substances in products, including certain electronic and electrical products and batteries. List of substances provided within the regulatory document	(5)
USA / CA	Health and safety code – Division 20. Miscellaneous health and safety provisions [24000 - 26250] – chapter 6.5. Hazardous Waste Control [25100 - 25259] (California RoHS)	Regulations prohibiting a covered electronic device from being sold or offered for sale in California if that device is prohibited from being sold or offered for sale in the EU due to the presence of lead,	(6)

		mercury, cadmium, or hexavalent chromium above certain maximum concentration values (MCVs).	
USA / NY	Environmental conservation act – Article 27: Collection, Treatment And Disposal of Refuse and Other Solid Waste – Title 7: Solid Waste Management and Resource Recovery Facilities – Section 27-0719: Battery management and disposal	Regulations on the placing of the market of batteries containing certain levels of hazardous substances. Substances addressed include mercury, lead, cadmium.	(7)

(2) Regulatory frameworks comprising substance specific provisions and lists for a wider scope, which may be relevant for the electronics sector

Country / Region	Regulation Name	Brief description	Link
Canada	Products Containing Mercury Regulations (SOR/2014-254)	Establishes prohibitions and maximum limit values for the use of mercury in products.	(8)
Canada	Prohibition of Certain Toxic Substances regulations, 2012 (SOR/2012-285)	These regulations prohibit the manufacture, use, sale, offer for sale or import of certain toxic substances, as well as products containing these substances. Provides a list of prohibited substances.	(9)
EU	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)	Addresses the production and use of chemicals and their potential impacts in the European Union. Substances of very high concern (SVHC) are identified and can be subject to authorization with the aim of their phasing out. For the management of other risks that are not adequately controlled, conditions on the manufacture, use and the presence in products can be imposed via restrictions. (10) provides the list of identified SVHC, (11) provides the list of substances subject to authorization, (12) provides the list of restricted substances.	(13) (10) (11) (12)

EU	Regulation (EU) No 517/2014 of the European Parliament and of the Council of 16 April 2014 on fluorinated greenhouse gases	Establishes rules on containment, recovery and destruction of fluorinated greenhouse gasses and on related ancillary measures, imposes conditions on the placing on the market of specific products that contain fluorinated greenhouse gasses, imposing conditions on the use of certain fluorinated greenhouse gasses and establishes quantitative limits for the placing on the market of hydrofluorocarbons. Provides list of regulated substances in annexes.	(14)
Japan	Act on the Regulation of Manufacture and Evaluation of Chemical Substances, Act No. 117 of 1973	Establishes rules on the manufacture, use and import of chemicals substances depending on their properties. (15) provides a list of chemicals whose manufacture or import is subject to prior approval by the authorities and whose use in certain products is prohibited. (16) provides a list of substances whose manufacture or import must be notified to the authorities and for which technical guidelines and recommendations are given for the products containing these substances.	(17) (15) (16)
Switzerland	Chemical Risk Reduction Ordinance (ORRChem)	Establishes prohibition or restriction for the placing on the market or use of certain substances or substance groups. (18) provides an overview of the prohibitions and restrictions on use.	(19) (18)

3 References

1. *China Administrative Measures on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Products*. [Online] <http://www.miit.gov.cn/n1146285/n1146352/n3054355/n3057254/n3057260/c4608532/content.html>.
2. *China GB 24427-2009*. [Online] <http://c.gb688.cn/bzgk/gb/showGb?type=online&hcno=F4196DA15745273FD55C1D8952B12747>.
3. *EU RoHS*. [Online] https://ec.europa.eu/environment/waste/rohs_eee/legis_en.htm.
4. *EU Batteries Directive*. [Online] <https://ec.europa.eu/environment/waste/batteries/>.
5. *Norwegian Product Regulation*. [Online] <https://lovdata.no/dokument/SF/forskrift/2004-06-01-922>.
6. *California RoHS*. [Online] <https://dtsc.ca.gov/restrictions-on-the-use-of-certain-hazardous-substances-rohs-in-electronic-devices/>.
7. *New York Environmental Conservation Law, Battery Management and Disposal §27-0719*. [Online] <https://www.nysenate.gov/legislation/laws/ENV/27-0719>.
8. *Canada Products Containing Mercury Regulations (SOR/214-254)*. [Online] <https://laws-lois.justice.gc.ca/eng/regulations/SOR-2014-254/page-1.html#h-806749>.
9. *Prohibition of Certain Toxic Substances regulation (SOR/2012-285)*. [Online] <https://pollution-waste.canada.ca/environmental-protection-registry/regulations/view?id=114>.
10. *EU List of SVHC*. [Online] <https://echa.europa.eu/candidate-list-table>.
11. *EU Authorisation List*. [Online] <https://echa.europa.eu/authorisation-list>.
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15. *Japan CSCL: Class I Specified Chemical Substances*. [Online] https://www.nite.go.jp/en/chem/chrip/chrip_search/intSrhSpcLst?_e_trans=&slScNm=RJ_01_001.
16. *Japan CSCL: Class II Specified Chemical Substances*. [Online] https://www.nite.go.jp/en/chem/chrip/chrip_search/intSrhSpcLst?_e_trans=&slScNm=RJ_01_002.
17. *Japan CSCL Law*. [Online] https://www.meti.go.jp/policy/chemical_management/english/cscl/.
18. *Switzerland Overview of Prohibitions and Restrictions*. [Online] <https://www.bafu.admin.ch/bafu/en/home/topics/chemicals/info-specialists/bans-and-restrictions-on-use.html>.
19. *Switzerland Chemical Risk Reduction Ordinance*. [Online] <https://www.admin.ch/opc/en/classified-compilation/20021520/index.html>.