

## Restrictions and Prohibitions on the Placing on the Market and Use of Products Containing Mercury and Prohibitions on the Use of Mercury as an Auxiliary Substance in Manufacturing Processes – An Overview

*This document (current as of July 2018) is provided for information purposes only, while the original text of the ORRChem is legally binding.*

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### Uses and prohibitions

#### Batteries

Batteries are sources of electricity that convert chemical energy directly to electrical energy and which consist of non-rechargeable cells (primary cells) or rechargeable cells (accumulators). Batteries that used to contain mercury were mercury-oxide cylindrical and button cells, alkaline manganese and zinc-carbon cylindrical cells and alkaline manganese, silver-oxide and zinc-air button cells.

Regulations:

- Batteries, including those incorporated into appliances, must not be placed on the market if they contain more than 5 mg mercury per kilogram; ([Annex 2.15 ORRChem](#))
- It is prohibited to place on the market new vehicles (passenger cars and light commercial vehicles) and new vehicle components which contain more than 0.1% of mercury per homogeneous material; ([Annex 2.16 Number 5 ORRChem](#))
- It is prohibited to place articles on the market if they contain mercury or mercury compounds for uses unknown before 1 January 2018. ([Annex 1.7 ORRChem](#))

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### Uses which do not fall within the scope of the prohibitions / Exemptions from prohibitions

- Appliances containing mercury-containing batteries which are fully or partly powered by batteries or are capable of being so and which are not electrical or electronic equipment as defined in Article 3 letter a of the [Directive 2002/96/EC](#) if they are for a use known before 1 January 2018;
  - Vehicles containing mercury-containing batteries which are neither passenger cars nor light commercial vehicles as defined in [Annex 2.16 Number 5.1 ORRChem](#) if they are for a use known before 1 January 2018 as defined in [Annex 1.7 ORRChem](#).
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## Uses and prohibitions

### Switches and relays

Mercury switches and relays are used for switching electrical circuits on, off or over.

Regulations:

- It is prohibited to place electrical and electronic equipment on the market that contains more than 0.1% of mercury per homogeneous material ([Annex 2.18 ORRChem](#)).
- It is prohibited to place on the market new vehicles (passenger cars and light commercial vehicles) and new vehicle components which contain more than 0.1% of mercury per homogeneous material. ([Annex 2.16 Number 5 ORRChem](#)).
- It is prohibited to place articles on the market that contain mercury or mercury compounds for uses unknown before 1 January 2018. ([Annex 1.7 ORRChem](#)).

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## Uses which do not fall within the scope of the prohibitions / Exemptions from prohibitions

The prohibition on placement on the market does not apply to electrical and electronic equipment containing mercury switches and mercury relays which,

- in accordance with [Annex 2.18 Number 3 ORRChem](#) (which refers to [Directive 2011/65/EU](#)), may contain mercury-containing switches and relays subject to the conditions stated therein;
- in accordance with [Annex 2.18 Number 8 paragraphs 1 and 4 ORRChem](#), have been, or are about to be, placed on the market.

Furthermore, the prohibition on placement on the market does not apply to mercury switches and mercury relays used as components in the following articles:

- appliances that are necessary for the protection of the essential interests of the security of Switzerland;
- appliances for use in outer space;
- articles, appliances, large-scale tools, large-scale installations, means of transport, machinery and photovoltaic panels listed in Article 2 paragraph 4 of the [Directive 2011/65/EU](#) if they are for a use known before 1 January 2018 in accordance with [Annex 1.7 ORRChem](#).

Furthermore, the prohibition on placement on the market does not apply to vehicles containing mercury switches and mercury relays that are not passenger cars or light commercial vehicles as defined in [Annex 2.16 Number 5.1 ORRChem](#) if they are for a use known before 1 January 2018 in accordance with [Annex 1.7 ORRChem](#).

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## Uses and prohibitions

### Discharge lamps

Discharge lamps are electrical and electronic equipment. The lamps rely on mercury for light production. Examples include fluorescent lamps (tubular and non-tubular), compact fluorescent lamps (with pin or screw base) and high-pressure discharge lamps (sodium-vapour lamps, mercury vapour lamps and metal-halide lamps).

Regulations:

- It is prohibited to place electrical and electronic equipment on the market that contains more than 0.1% of mercury per homogeneous material; ([Annex 2.18 ORRChem](#))
- It is prohibited to place on the market new vehicles (passenger cars and light commercial vehicles) and new vehicle components which contain more than 0.1% of mercury per homogeneous material; ([Annex 2.16 Number 5 ORRChem](#))
- It is prohibited to place articles on the market that contain mercury or mercury compounds for uses unknown before 1 January 2018. ([Annex 1.7 ORRChem](#))

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## Uses which do not fall within the scope of the prohibitions / Exemptions from prohibitions

The prohibition on placement on the market does not apply to discharge lamps (individually or as part of other electrical and electronic equipment) which,

- in accordance with [Annex 2.18 Number 3 ORRChem](#), do not exceed the maximum mercury concentration specified in the [Directive 2011/65/EU](#);
- in accordance with [Annex 2.18 Number 8 paragraphs 1 and 4 ORRChem](#), have been, or are about to be, placed on the market.

Furthermore, the prohibition does not apply to the placing on the market of discharge lamps for headlights and fluorescent tubes used in instrument panel displays as replacement parts for passenger cars and light commercial vehicles type-approved before 1 July 2012.

Furthermore, the prohibition on placement on the market does not apply to discharge lamps used as components of other articles not mentioned above for uses known before 1 January 2018 in accordance with [Annex 1.7 ORRChem](#).

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## Uses and prohibitions

### Other electrical and electronic components

In particular, mercury-containing components of medical devices and monitoring and control instruments such as infrared detectors, ionising radiation detectors or reference electrodes.

Regulations:

- It is prohibited to place on the market electrical and electronic equipment which contains more than 0.1% of mercury per homogeneous material; ([Annex 2.18 ORRChem](#))
- It is prohibited to place on the market new vehicles (passenger cars and light commercial vehicles) and new vehicle components which contain more than 0.1% of mercury per homogeneous material; ([Annex 2.16 Number 5 ORRChem](#))
- It is prohibited to place articles on the market that contain mercury or mercury compounds for uses unknown before 1 January 2018. ([Annex 1.7 ORRChem](#))

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## Uses which do not fall within the scope of the prohibitions / Exemptions from prohibitions

The prohibition on placement on the market does not apply to electrical and electronic equipment containing mercury-containing components which,

- in accordance with [Annex 2.18 Number 3 ORRChem](#) (which refers to the [Directive 2011/65/EU](#)), may contain such components;
- in accordance with [Annex 2.18 Number 8 paragraphs 1 and 4 ORRChem](#), have been, or are about to be, placed on the market.

Furthermore, The prohibition on placement on the market does not apply to mercury-containing components incorporated into:

- Appliances that are necessary for the protection of the essential interests of the security of Switzerland;
- appliances for use in outer space;
- articles, appliances, large-scale tools, large-scale installations, means of transport, machinery and photovoltaic panels listed in Article 2 paragraph 4 of the [Directive 2011/65/EU](#) for uses known before 1 January 2018 in accordance with [Annex 1.7 ORRChem](#).

Furthermore, the prohibition does not apply to the placing on the market of vehicles containing mercury-containing components which are not passenger cars or light commercial vehicles as defined in [Annex 2.16 Number 5.1 ORRChem](#) for uses known before 1 January 2018 in accordance with [Annex 1.7 ORRChem](#).

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## Uses and prohibitions

## Uses which do not fall within the scope of the prohibitions / Exemptions from prohibitions

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### Measuring instruments and measurement purposes

Measuring instruments use mercury mainly as a manometer and thermometer liquid. Mercury is also used to determine pore size distribution, pore volume and the density of porous materials (porosimeter) and for density measurements in air pycnometers. It is also used as an electrode in electrochemical methods of analysis such as voltammetry.

Regulations:

- It is prohibited to place on the market clinical thermometers and other measuring instruments that are intended for the general public;
- It is prohibited to place on the market the following measuring instruments that contain mercury, or the use of which requires the use of mercury, which are intended for application on a professional or commercial basis:
  - Sphygmomanometers and strain gauges for use in plethysmographs;
  - Thermometers and other measuring instruments for thermometric applications;
  - Barometers and manometers;
  - Hygrometers, tensiometers, pycnometers and instruments for the determination of the softening point;
- It is prohibited to place articles on the market that contain mercury or mercury compounds for uses unknown before 1 January 2018. ([Annex 1.7 ORRChem](#))

The following appliances containing mercury or requiring mercury for measurement purposes do not fall within the scope of the prohibition:

- voltammetry instruments;
- porosimeters.

The prohibition does not apply to:

- Measuring instruments which were more than 50 years old on 1 September 2015 and are considered to be antiques or cultural goods;
- Sphygmomanometers for use as a reference standard for the validation of mercury-free instruments;
- Thermometers which are exclusively used for tests based on standards that prescribe the use of mercury thermometers and triple point cells which are used for the calibration of platinum resistance thermometers.

Furthermore, the prohibition does not apply to other measuring instruments for uses that were known before 1 January 2018 in accordance with [Annex 1.7 ORRChem](#).

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### Dental amalgam

Dental amalgam is produced by mixing equal parts of mercury and a dental alloy. Today, dental amalgam is sold in capsules containing mercury and an alloy powder in two separate chambers.

Regulations:

The use of dental amalgam is prohibited.

An exemption from the general prohibition is granted if priority cannot be given to a different filling material for medical reasons.

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**Uses and prohibitions****Uses which do not fall within the scope of the prohibitions / Exemptions from prohibitions**

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**Plastics**

Up until recently, phenylmercury compounds were widely used as plastic processing additives. They were used in surface coatings, adhesives, sealants and, in particular, casting compounds for the production of elastomer mouldings.

Regulations:

- It is prohibited to place on the market phenylmercury compounds or other mercury compounds intended for the manufacture of polyurethanes or preparations or articles containing 0.1% or more of such compounds; ([Annex 1.7 ORRChem](#))
- It is prohibited to place on the market preparations or articles containing mercury or mercury compounds for uses unknown before 1 January 2018. ([Annex 1.7 ORRChem](#))

The prohibitions do not apply for analysis and research purposes nor do they apply to uses that were known before 1 January 2018 in accordance with [Annex 1.7 ORRChem](#).

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**Paints and varnishes**

Historical uses include the use of cinnabar as a pigment for paintings, wall and book painting and the use of organic mercury compounds as biocidal products in decorating paints.

Regulations:

It is prohibited to place on the market paints and varnishes containing mercury.

Artists' paints are not decorating paints or varnishes as defined in the prohibitions and may contain mercury.

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**Pesticides**

Regulations:

Plant protection products and biocidal products including goods treated with such products may not be placed on the market if they contain mercury compounds.

Biocidal products for research and development purposes.

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**Cosmetics**

Regulations:

Cosmetic products may not be placed on the market if they contain mercury compounds.

Cosmetic products containing mercury compounds in eye make-up and eye make-up remover as provided in the food legislation regulations.

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**Uses and prohibitions****Uses which do not fall within the scope of the prohibitions / Exemptions from prohibitions**

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**Medicinal products**

Organic mercury compounds are used to this day as preservatives in preparations such as eye drops, nasal sprays and vaccines. Mercury compounds were formerly also used in topical antiseptic products, i.e. locally applied medicines to prevent wound infections.

Regulations:

Topical antiseptic products may not be placed on the market if they contain mercury compounds.

The use of other mercury compounds in medicinal products is regulated by pharmaceutical legislation.

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**Auxiliary substances in manufacturing processes**

In Switzerland, until recently, mercury was used in one company as an auxiliary substance in chlor-alkali electrolysis, and a mercury compound was used in another company as a catalyst in the industrial synthesis of an organic compound. Both companies have since switched to mercury-free processes.

Regulations:

The use of mercury, mercury compounds and preparations containing mercury as auxiliary substances in industrial manufacturing processes is prohibited.

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