



# Factsheet: *Laser pointer or not?*

## 1 Concise information

Recent years have seen an increase in the circulation of hazardous laser pointers, which can cause eye and skin damage. In particular, such devices, which are prohibited in Switzerland, are offered for sale online. The Ordinance to the Federal Act on Protection against the Risks associated with Non-Ionising Radiation and with Sound (O-NIRSA) regulates, inter alia, the use of laser pointers.

Prohibited are the possession, import, transit, offering and supply of laser pointers of classes 1M, 2, 2M, 3R, 3B and 4. Also prohibited are devices which are not or are incorrectly labelled with a laser class in accordance with SN EN 60825–1:2014, “Safety of laser products – Part 1: Equipment classification and requirements”.

Only class 1 laser pointers may be used for pointing purposes indoors.

### How can I tell whether I have a prohibited, hazardous laser pointer?

- The laser pointer is labelled with laser classes 1M, 2, 2M, 3R, 3B or 4. Such labels may be in German, French or English and must be affixed to the device.
- The laser pointer is labelled with other laser classes, such as 3A, IIIA, 1C, etc.
- The laser pointer is not, or not legibly, labelled with a laser class.

**N.B.** The regulations are applicable irrespective of the colour of the laser, i.e. in particular also for infrared (non-visible) lasers.

### Where can I obtain further information?

Further information on laser pointers can be found on the website of the Federal Office of Public Health: <https://www.bag.admin.ch/bag/en/home/gesund-leben/umwelt-und-gesundheit/strahlung-radioaktivitaet-schall/elektromagnetische-felder-emf-uv-laser-licht/laser-und-lasershows.html>

#### Further information:

Federal Office of Public Health FOPH  
Radiological Protection Division, NIR/Dosimetry Section  
Schwarzenburgstrasse 157, CH-3003 Bern  
[www.bag.admin.ch](http://www.bag.admin.ch)

## 2 Is my device a laser pointer?

The term “laser pointer” is defined in Article 22 of the Ordinance to the Federal Act on Protection against the Risks associated with Non-Ionising Radiation and with Sound (O-NIRSA):

*“For the purposes of [the O-NIRSA], laser pointer means a laser device which, on account of its size and weight, can be held in and guided by hand and which emits laser radiation for pointing out objects and locations, for entertainment and for defence or repellent purposes.”*

This means that:

1. the laser device is designed and dimensioned so that it can be held in and guided by a person’s hand;
2. the laser device is designed so that a person can use it for pointing, entertainment, defence or repellent purposes.

Thus, also to be considered as laser pointers are all laser products which do not meet the definition of a laser pointer but are used as such contrary to their intended purpose (e.g., when the laser of a distance meter is used as a presenter, contrary to the user instructions). This also applies to devices which were not originally laser pointers, but can be used as such after being deliberately modified.

### 2.1 Explanatory notes on the criteria

The examples given below are not exhaustive, but serve merely to illustrate the individual intended uses.

#### 2.1.1 Criterion: size, weight, hand-guidable

“Laser devices of such a size and weight as to be hand-held and hand-guidable” are devices which are intended to be capable of being held in and guided by a person’s hand, and which are designed accordingly with regard to size, weight and handiness.

Not falling under this category are devices which, although they meet the criterion “laser devices of such a size and weight as to be hand-held and hand-guidable”, are not intended for pointing, entertainment, repellent or defence purposes, such as laser barcode scanners, laser distance meters, etc.

#### 2.1.2 Criterion: pointing purposes

*Laser pointers of class 1 are permitted exclusively for pointing purposes indoors.*

Falling under the category of laser pointers for pointing purposes are laser devices which are designed for actual pointing purposes. Permissible are thus, for example, devices for use in lectures and presentations, in teaching and training, in courses, during (indoor) guided tours, etc.

#### 2.1.3 Criterion: entertainment purposes

*The use of laser pointers for entertainment purposes is not permissible.*

Falling under the category of laser pointers for entertainment purposes are laser devices which can be used for recreation, as a toy for humans or pets, or for other similar purposes, i.e., for example, the following hand-guidable lasers:

- devices marketed for the purpose of DIY laser engraving;
- devices marketed for crafts or for amateur laser experiments;
- devices marketed as firelighters;
- devices marketed for play purposes (toys for adults, children or pets);
- devices marketed for laser shows;
- torches (if they emit laser radiation; see Section 3.5.2 Laser lights, torches, forehead lights & bicycle lights, car headlights)

- etc.

#### **2.1.4 Criterion: repellent purposes**

*The use of laser pointers for repellent purposes is not permissible.*

Falling under the category of laser pointers for repellent purposes are laser devices which are marketed as animal deterrents or repellents, for example in agriculture or for industrial facilities.

An exemption for the use of laser pointers for repellent purposes concerns the import, possession and use of certain laser pointers for wildlife or bird control on airport perimeters. For this purpose, authorisation must be obtained from the competent authorities (see Section 3.5.7.1 Bird control at airports).

#### **2.1.5 Criterion: defence purposes**

*The use of laser pointers for defence purposes is not permissible.*

Falling under the category of laser pointers for defence purposes are laser devices marketed and used as personal protection or self-defence tools (see Section 3.3 Accessories for weapons, or weapon-like products). Not falling under this category are hand-guidable laser weapons which may be used by police, armed forces or intelligence services.

### **3 Product categories & examples**

The following list of examples is not exhaustive.

#### **3.1 Laser modules & subassemblies**

Not falling under the O-NIRSA prohibition on laser pointers are laser subassemblies which, though they can be held in and guided by a person's hand on account of their size and weight, are not used for pointing, entertainment, defence or repellent purposes. These include, for example, laser modules. A laser module is a laser component which is part of a larger system and cannot be operated independently thereof. Such subassemblies do not have their own power supply, on-off switch, controller/regulator, or housing enclosing the entire system. Subassemblies do, however, have electrical connections (clips, cables, etc.) for a power supply.

**N.B.** If a laser device is assembled or rigged up from such laser subassemblies or modules in such a way that it can be held in and guided by a person's hand, then this falls under the O-NIRSA prohibition on laser pointers (see Section 2.1.3 Criterion: entertainment purposes).

#### **3.2 Lasers for commercial and industrial applications**

Not falling under the O-NIRSA prohibition on laser pointers, as they are not used for pointing, entertainment, defence or repellent purposes, are lasers for commercial and industrial applications (e.g. laser scanners for surveying or natural hazard monitoring, lasers for research and development, lasers for traffic safety monitoring, laser-based location and positioning systems, laser barcode scanners for checkout systems, distance meters, thermometers, construction lasers, laser levels, fibre-optic test equipment, etc.).

**N.B.** This is without prejudice to the duty to comply with additional legal provisions [e.g. the Ordinance on Low-Voltage Electrical Equipment ([SR 734.26](#)), the Product Safety Act ([SR 930.11](#)), or the Machine Safety Ordinance ([SR 819.14](#))] and thus SN EN 60825-1.

If a device is advertised as having an additional laser pointer function, or if the laser can be used as a laser pointer with the aid of such a function, then the device falls accordingly, as a laser pointer, under the O-NIRSA prohibition on laser pointers.

If a device is used as a laser pointer contrary to the manufacturer's intended use, then the device is considered to be a laser pointer at the time it is so used and, at such time, falls under the O-NIRSA prohibition on laser pointers (example: someone may be charged for illegally using a distance meter, contrary to the user instructions, as a laser pointer for pointing purposes).

### **3.3 Accessories for weapons, or weapon-like products**

#### **3.3.1 Weapon accessories in accordance with the Weapons Act**

Lasers as *weapon accessories in accordance with the Weapons Act* ([SR 514.54](#); Federal Act on Weapons, Weapon Accessories and Ammunition; WA) fall under the WA. Only *weapon accessories in accordance with the WA* are considered to be weapon accessories. Any other accessories for weapons (often also informally referred to as weapon accessories) are not considered to be *weapon accessories in accordance with the WA*.

##### **3.3.1.1 Laser aiming devices & equipment, laser sights**

- Laser aiming aids which are integrated into weapons or – according to the product description (user instructions) – are exclusively designed to be mounted on weapons (i.e. with mounting components supplied) are considered to be *weapon accessories in accordance with the WA* and fall under the WA (**N.B.** laser aiming aids require a permit under the WA).
- Separate, non-weapon-mountable laser aiming aids are considered to be laser pointers and fall under the O-NIRSA prohibition on laser pointers.

##### **3.3.2 Accessories for weapons not considered to be weapon accessories in accordance with the WA**

Laser devices for weapons and weapon-like products which do not serve as laser aiming devices and are thus not considered to be *weapon accessories in accordance with the WA* fall under the O-NIRSA prohibition on laser pointers if the criteria specified in Art. 22 O-NIRSA are met (see Section 2.1 Explanatory notes on the criteria).

##### **3.3.2.1 Laser boresighters**

A boresighter is an instrument used for adjustment and calibration of a weapon aiming aid. Laser boresighters fall under the O-NIRSA prohibition on laser pointers. An exception to this are boresighters which can only be turned on by the weapon itself when they are inserted in the cartridge chamber, i.e. not outside the weapon; these do not fall under the O-NIRSA prohibition on laser pointers.

##### **3.3.2.2 Laser training cartridges**

Laser training cartridges are cartridges which emit a laser beam when the trigger of a weapon is pulled. They are either placed in the barrel or inserted into the muzzle. As laser pointers, laser training cartridges fall under the O-NIRSA prohibition on laser pointers unless they can only emit individual laser pulses when they are mounted in or on the weapon and are triggered by the weapon.

Laser training cartridges which can be turned on outside the weapon (e.g. by pressing the activator at the rear) fall, as laser pointers, under the O-NIRSA prohibition on laser pointers.

### **3.3.2.3 Tactical flashlights, hunting lights**

So-called tactical flashlights and hunting lights which emit laser radiation and thus illuminate the target area fall, as laser pointers, under the O-NIRSA prohibition on laser pointers. This is true irrespective of the wavelength, i.e. also for products emitting radiation in the infrared region, which is thus not visible to the human eye.

### **3.3.3 Laser pistols for training purposes**

Laser pistols or shooting systems which

- are designed for and placed on the market by the manufacturer for training purposes,
- have product information, safety instructions and safety measures provided by the manufacturer and
- do not constitute toys for children or adults

do not fall under the O-NIRSA prohibition on laser pointers.

### **3.3.4 Weapon-like products**

This subsection describes products which are similar to weapons in their structure and functioning but are not considered to be weapons in accordance with the Weapons Act (Art. 4 WA).

#### **3.3.4.1 Sports equipment for adults**

Crossbows, catapults and similar devices are considered to be sports equipment for adults. However, certain models include a laser aiming aid. If the laser aiming aid is supplied or operated separately (e.g. crossbow with laser sight for user assembly), then the laser, as a laser pointer, falls under the O-NIRSA prohibition on laser pointers.

Handheld sports equipment with a built-in laser also falls under the O-NIRSA (entertainment purposes), as the sports equipment does not constitute a weapon and the laser is thus not a laser aiming device in accordance with the WA.

#### **3.3.4.2 Attachments for pepper spray**

A laser attachment for a pepper spray (or similar product), designed either for sighting or for defence purposes, falls, as a laser pointer, under the O-NIRSA prohibition on laser pointers. Such laser attachments are not considered to be weapon accessories in accordance with the Weapons Act.

#### **3.3.4.3 Weapon-shaped lasers & imitation weapons**

Laser devices which are in the shape of, or imitate, a weapon and which have not been placed on the market by a manufacturer explicitly for training purposes (e.g. laser training pistols; see Section 3.3.3 Laser pistols for training purposes) fall, as laser pointers, under the O-NIRSA prohibition on laser pointers.

## **3.4 Multifunctional products**

Multifunctional products, i.e. products similar to laser pointers in terms of design and operation, with a built-in laser for pointing, entertainment, defence or repellent purposes, fall under the O-NIRSA prohibition on laser pointers. This includes, for example, the following products:

- keyring pendants, penknives, ballpoint pens, pencils, writing implements, touch pens, mobile phones, power banks, torches, etc. with a built-in laser pointer;
- gifts and giveaways with a built-in laser pointer;
- remote controls & presenters with a built-in laser pointer, as used e.g. for (audio)visual equipment (projectors, screens, etc.);
- laser distance meters which are also marketed as pointers;

- laser pointers as attachments for other products, e.g. laser pointer attachments for mobile phones;
- etc.

## 3.5 Other products

### 3.5.1 Telescope accessories

Laser collimators designed exclusively for the adjustment of reflecting telescopes – provided that, when in use, the laser beam can only exit through the eyepiece opening – do not fall under the O-NIRSA prohibition on laser pointers. Any other laser devices (e.g. for aligning an equatorial mount) fall under the O-NIRSA prohibition on laser pointers.

### 3.5.2 Laser lights, torches, forehead lights & bicycle lights, car headlights

If a hand-guidable light emits laser radiation, then, as a laser pointer, it falls under the O-NIRSA prohibition on laser pointers (e.g. hunting lights, see Section 3.3.2.3 Tactical flashlights, hunting lights). If the laser is used exclusively to cause a light source to shine<sup>1</sup>, and if, according to the product description (user instructions, packaging, etc.), the light does not actually emit laser radiation, then the light is to be labelled as a class 1 laser device. In this case, the device does not fall under the O-NIRSA import ban on laser pointers (Art. 23 para. 1 O-NIRSA) and the light may be used for pointing purposes indoors (Art. 23 para. 3 O-NIRSA).

If the light emits laser radiation which exceeds the limit value specified for class 1, then, as a laser pointer, it falls under the O-NIRSA prohibition on laser pointers.

Laser forehead lights which emit laser radiation fall, as laser pointers, under the O-NIRSA prohibition on laser pointers. This is also the case for devices used for therapeutic purposes.

Bicycle lights with a built-in laser fall, as laser pointers, under the O-NIRSA prohibition on laser pointers. This is also the case for devices which do not serve the function of illumination but project symbols such as lane markers onto the road. As well as being subject to the O-NIRSA prohibition on possession, the use of such devices in road traffic is not permissible under the Ordinance on Technical Requirements for Road Vehicles ([SR 741.41](#); Art. 216 para. 2).

Laser car headlights do not fall, as laser pointers, under the O-NIRSA prohibition on laser pointers, since they do not meet the criteria specified in Art. 22 O-NIRSA. When supplied separately, they are considered to be laser subassemblies (see Section 3.1 Laser modules & subassemblies).

### 3.5.3 Toys

In the Ordinance on Foodstuffs and Utility Articles ([SR 817.02](#); Art. 65), toys are defined as *“all articles which are intended or designed to be used for play by children up to the age of fourteen.”* According to the Toy Safety Ordinance ([SR 817.023.11](#); Annex 2. No. 4 para. 8), *“Toys shall be designed and manufactured in such a way as not to pose any hazards to health or risks of injury to the eyes or skin from lasers, light-emitting diodes (LED) or other types of radiation.”* The use of lasers in toys is thus restricted to class 1 devices.

Such lasers in toys, as defined in the Ordinance on Foodstuffs and Utility Articles – provided that they are used exclusively in accordance with the instructions – do not fall under the O-NIRSA prohibition on laser pointers, but they must be class 1 devices in accordance with the Toy Safety Ordinance.

Lasers supplied as toys for cats, or other pets, which meet the definition given in Art. 22 O-NIRSA fall,

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<sup>1</sup> According to SN EN 60825-1, laser devices must also be labelled with a laser class in cases where no laser radiation is emitted during normal operation and laser radiation exceeding the limit value for class 1 can only be emitted during maintenance or service, or in the event of a malfunction.

as laser pointers, under the O-NIRSA prohibition on laser pointers. This applies to the great majority of hand-guidable so-called LED pointers, light pointers, etc., which are marketed as cat toys. As they are designed to be used for entertainment purposes, these devices are prohibited under the O-NIRSA.

### **3.5.4 Laser engravers**

Laser engraving devices which are hand-guidable (see Section 2.1.1 Criterion: size, weight, hand-guidable) fall, as laser pointers, under the O-NIRSA prohibition on laser pointers. If an additional power supply is required (mains connection) and the laser is permanently mounted on the engraving device, then the laser is no longer hand-guidable and, as a subassembly or laser module, does not fall under the O-NIRSA prohibition on laser pointers (see Section 3.1 Laser modules & subassemblies).

**N.B.** This is without prejudice to the duty to comply with additional legal provisions. Laser engraving machines fall, for example, within the scope of the Machine Safety Ordinance ([SR 819.14](#)). In this regard, many (cheaper) products for home use do not meet the requirements specified for protection against exposure to laser radiation. In addition, the protective goggles supplied often do not provide any protection against laser radiation. For commercial laser engraving and laser cutting machines, responsibility lies with Suva; for non-commercial devices (i.e. consumer products), it lies with the Swiss Council for Accident Prevention (BFU; Art. 20 Product Safety Ordinance, [SR 930.111](#)).

### **3.5.5 Lasers for experiments**

Lasers for experiments which meet the definition given in Art. 22 O-NIRSA essentially fall under the O-NIRSA prohibition on laser pointers (see Section 2.1.1 Criterion: size, weight, hand-guidable).

Lasers in experiment kits fall, as toys, under the Toy Safety Ordinance (see Section 3.5.3 Toys).

### **3.5.6 Wellness & health lasers**

If a hand-guidable laser device is certified as a medical device in accordance with the Medical Devices Ordinance, then it is not considered to be a laser pointer in accordance with the O-NIRSA.

**(N.B.** Depending on its intended use, the device may fall under Section 2 of the O-NIRSA and a certificate of competence may be required for its use; see Section 3.5.8 Products regulated in other sections of the O-NIRSA.)

Laser devices for wellness purposes, health purposes, pseudo- or non-scientific purposes (e.g. lasers for “harmonising” food, articles, living beings, etc.), which are not certified as medical devices, and to which the definition given in Art. 22 O-NIRSA is applicable, are considered to be laser pointers and fall under the O-NIRSA prohibition on laser pointers.

#### **3.5.6.1 Lasers for acupuncture and LLLT**

Hand-guidable acupuncture lasers and low-level laser therapy (LLLT) devices which are certified as medical devices are not considered to be laser pointers and do not fall under the O-NIRSA prohibition on laser pointers. If such devices are not certified as medical devices, they are considered to be laser pointers and fall under the O-NIRSA prohibition on laser pointers.

### **3.5.7 Bird control**

Mobile bird control lasers, e.g. for industrial facilities or agriculture, fall, as laser pointers, under the O-NIRSA prohibition on laser pointers.

#### **3.5.7.1 Bird control at airports**

Under Art. 23 para. 2 O-NIRSA, the import and possession of laser pointers of classes 1, 1M, 2, 2M, 3R and 3B are permitted for the purpose of bird control on airport perimeters, provided that authorisation has been obtained from the competent authorities. It is essential that such laser pointers should be used proficiently by trained airport personnel, so that no persons are dazzled or

endangered. Such laser pointers used for bird control must only emit laser radiation within the airport perimeter (i.e. no radiation directed from the ground towards birds in trees, as the beam may then go beyond the airport perimeter).

### **3.5.8 Products regulated in other sections of the O-NIRSA**

Laser devices regulated in other sections of the O-NIRSA are not considered to be laser pointers. These include lasers used for medical or cosmetic purposes, laser projectors (i.e. complete laser systems for laser shows) and lasers used in laser tag facilities.

## **4 References**

SN EN 60825-1:2014 «Sicherheit von Lasereinrichtungen – Teil 1: Klassifizierung von Anlagen und Anforderungen»<sup>2</sup>

Bundesgesetz über den Schutz vor Gefährdungen durch nichtionisierende Strahlung und Schall (NISSG) [SR 814.71](#)

Verordnung zum Bundesgesetz über den Schutz vor Gefährdungen durch nichtionisierende Strahlung und Schall (V-NISSG) [SR 814.711](#)

Bundesgesetz über Waffen, Waffenzubehör und Munition (Waffengesetz, WG) [SR 514.54](#)

Bundesgesetz über die Produktesicherheit (PrSG) [SR 930.11](#)

Verordnung über elektrische Niederspannungserzeugnisse (NEV) [SR 734.26](#)

Verordnung des EDI über die Sicherheit von Spielzeug (Spielzeugverordnung, VSS) [SR 817.023.11](#)

Medizinprodukteverordnung (MepV) [SR 812.213](#)

Verordnung über die technischen Anforderungen an Strassenfahrzeuge (VTS) [SR 741.41](#)

Verordnung über die Sicherheit von Maschinen (MaschV) [SR 819.14](#)

Verordnung über die Produktesicherheit (PrSV) [SR 930.111](#)

Lebensmittel- und Gebrauchsgegenständeverordnung (LGV) [SR 817.02](#)

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<sup>2</sup> This standard can be consulted free of charge and purchased from the Swiss Association for Standardization, Sulzerallee 70, 8404 Winterthur; [www.snv.ch](http://www.snv.ch)