Information from the Safety and Radiation Protection Unit | July 2019

LASER POINTERS

Do we bring home weapons from the lecture hall?

Laser pointers are very popular. Their availability and low prices make them very common in each home, and they are prevalent even as toys.

However, we must take into consideration the risk involved in the reckless use of laser pointers:

Most of the qualitative laser pointers are Class 3A lasers with a maximum output of 5 mW.

Nowadays, a significant proportion of laser pointers sold in Israel are not validated in any way and do not comply with standards due to personal import and smuggling.

A laser beam from a Class 3A source can cause irreversible damage to the eye retina after only a 10-second exposure. Damage might be caused even after a shorter exposure and only part of it is reversible. Any direct radiation of a Class 3A laser pointer ensures eye and even skin injury.

The risk of significant eye injury is higher in children than in adults due the higher blinking frequency in adults.

Recommendations:

- Handle laser pointers with the outmost care during lectures
- Keep laser pointers out of the children's reach . This is not a toy!
- Take outmost care when purchasing laser pointers and toys integrating lasers , such as guns, arrow and bow, spades, etc and purchase them only at reliable places.

» Ophthalmology, 1997: “Pointers on Laser Pointers”.
» Ministry of Education Circular: "Prohibition of use and damages of laser pointers in children 2016"
» Image from: https://ancientexplorers.com/products/5mw-professional-high-powerlaser-pointer-pens?variant=42268188483

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Safety Incident at the Technion

MERCURY SPILL

Several safety incidents occurred during the last months at the Technion.

The Safety Unit chooses to emphasize one of the last incidents that occurred on the campus in order to learn lessons:

Mercury spills can happen amongst others as a result of a broken thermometer. Mercury is a silvery liquid heavy metal with toxic effects that can accumulate during a long period.

Basic instructions for handling mercury spill as a result of a broken thermometer:

1. Mercury tends to form tiny droplets that roll on the floor or on the table and penetrate into cracks and slits. As a result, toxic mercury vapors may be released to the air.
2. The spill must be handled close to the broken thermometer in order to contain the incident, stop the spreading of the mercury droplets and neutralize them.
3. The Safety Unit and / or the Security Unit must be notified about the spill if the spill occurs after working hours.
4. Wear gloves and respiratory mask in order to reduce the exposure to mercury vapors.
5. Open windows in place
6. Move the mercury droplets with a brush to form a larger droplet.
7. Remove the large droplet with masking tape or Velcro or with a large syringe
8. Place the mercury waste into a glass container with some water that can be sealed.
9. Affix a clear label on the mercury waste container.
10. Place into the mercury waste container any other broken glass that was in contact with the mercury
11. Notify the Chemical Waste Unit at the Technion
12. Notify the responsible staff member and the Head of the Administration.
13. Never use a vacuum cleaner or any type of suction device for collecting the mercury droplets.

Link to the accident form on the Safety Unit site.