

# Instructions for handling laboratory waste

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## Applicable regulations

- Law of December 14, 2012 on waste
- Regulation of the Minister of Health of October 5, 2017 on the detailed handling of medical waste
- Regulation of the Minister of Climate of January 2, 2020, on the waste catalog
- Regulation of the Minister of Climate of September 11, 2020 on detailed requirements for waste storage
- Regulation of the Minister of Climate and Environment of November 26, 2021 on the disposal and storage of medical waste and veterinary waste

## Municipal waste in the laboratory

Waste that by its nature and composition is similar to household waste:

- paper and cardboard, glass, metals, plastics, bio-waste, wood, textiles, packaging, used electrical and electronic equipment, used batteries and accumulators, and bulky waste, including mattresses and furniture
- e.g.: used paper towels, cardboard, plastic or foil packaging, cardboard boxes, glass, aprons, cleaning cloths, washing-up cloths, etc.

Provided that they **do NOT contain** hazardous substances.

Proceedings in accordance with Annex No. 1 to Order No. 112 of the Rector of the NCU of April 26, 2021.

## Types of waste that, according to their characteristics, constitute hazardous waste:

- explosive
- oxidizing
- flammable
- skin irritant and causing eye damage
- toxic to target organs (STOT) or posing an aspiration hazard
- acute toxicity
- carcinogenic
- corrosive
- infectious
- toxic to reproduction
- mutagenic
- releasing gases of acute toxicity
- sensitizing
- ecotoxic
- exhibiting hazardous features listed in points 1-14 which were not directly visible in primary waste



### **COMPONENTS THAT MAY CAUSE WASTE TO BE HAZARDOUS WASTE**

beryllium, beryllium compounds,	thallium, thallium compounds,	phosphorus, phosphorus compounds
vanadium compounds, chromium compounds (VI),	lead, lead compounds, inorganic sulfides,	except mineral phosphates,
cobalt compounds, nickel compounds,	inorganic fluorine compounds, except calcium fluoride,	chlorates, perchlorates,
copper compounds, zinc compounds,	inorganic cyanides,	azides,
arsenic, arsenic compounds, selenium, selenium compounds, silver compounds, creosotes,	the following alkali metals or alkaline earth metals: lithium, sodium, potassium, calcium, magnesium in unbound form,	pharmaceuticals and compounds used in medicine or veterinary medicine, biocides and phytopharmaceutical substances,
cadmium, cadmium compounds, tin compounds, antimony, compounds antimony,	acidic solutions or acids in solid form, alkaline solutions and bases in solid form,	infectious substances, isocyanates, thiocyanates, organic cyanides (e.g., nitriles),
tellurium, tellurium compounds,		
barium compounds with the exception of barium sulfate,	asbestos (dust and fibers), metal carbonyls,	phenols, phenolic compounds, halogenated solvents,
mercury, mercury compounds,	peroxides,	
organic solvents, except halogenated solvents, aliphatic amines,	halogen-organic compounds, with the exception of inert polymerized materials,	aromatic, polycyclic and heterocyclic organic compounds, substances with
aromatic amines,	organic sulfur compounds,	explosive properties
ether, hydrocarbons and their compounds with oxygen, nitrogen or sulfur	any derivatives of polychlorinated dibenzodioxin,	any derivatives of polychlorinated dibenzofuran

## General rules for handling hazardous waste

- Waste shall be collected at the site of its formation into containers or single-use bags made of polyethylene film, of the appropriate color, durable, resistant to moisture and chemicals, with the possibility of one-time closure.
- Waste with sharp ends and edges shall be collected at the site of their formation into single-use containers, rigid, mechanically resistant to puncture or cut.
- Containers or bags shall be filled to at most 2/3 of their volume in a manner that allows them to be closed securely. It is unacceptable to open once-closed containers or single-use bags.
- Closed, properly labeled (according to the label patterns) containers and bags should be handed over to the room

### **035 in building A (floor –1)**

- Waste transfer is handled by designated persons.
- Internal transportation of waste shall be carried out in a manner that prevents damage to the container or bag, prevents exposure to direct contact with the waste, does not allow mixing of the waste, and allows for hygienic conditions, including protection from contamination.

**In situations where a given threat cannot be ruled out beyond reasonable doubt, the rule should be to adopt the highest level of protection even where the risk appears to be relatively small.**

## Waste transfer

- Waste transfer is handled by designated persons from each department.
- To transfer waste, get the key to room **035** (building A) from the gatehouse.
- Properly packed and labeled waste should be transported to this room and placed in the designated area for the type of waste.
- Each time waste is transferred, it should be reported by sending an e-mail to the relevant employee:
  - **Beata Pękala-Gruszka**, phone no. 56 611 25 07, **bea\_pek@umk.pl** for Biology Institute – medical, veterinary and chemical waste
  - **Maciej Zdun**, phone no. 505 300 696, **maciejzdun@umk.pl** for Institute for Veterinary Medicine at 1 Lwowska Street – veterinary waste and By-Products of Animal Origin;
  - **Dawid Rogoziński**, phone no. 56 611 26 57, **daw.rog@umk.pl** for Institute for Veterinary Medicine at 13 Szosa Bydgoska Street – medical, veterinary and chemical waste and By-Products of Animal Waste;
  - **Tomasz Kuziemkowski**, phone no. 505 396 275, **tomasz.kuziemkowski@umk.pl** for breeding facilities and animal house of the Faculty of Biological and Veterinary Sciences – veterinary waste and By-Products of Animal Waste.
    - In the message sent, please specify:
      - the type of waste transferred and its code,
      - the approximate weight of the transferred waste,
      - the source of payment for waste disposal.

The marking on the waste container or bag must include the waste code, its weight and the name of the department from which it came.

## Laboratory waste

Non-hazardous waste	Hazardous waste
<p>16 03 04 – inorganic waste other than listed in 16 03 03, 16 03 80 - dishes, test tubes, culture dishes and bottles, tips, gloves, etc., that have been in contact with any chemical substance</p>	<p>16 03 03* - inorganic waste containing hazardous substances – dishes, test tubes, culture dishes and bottles, tips, gloves, etc., that have been in contact with any hazardous substance</p>
<p>16 05 09 - used chemicals other than listed in 16 05 06, 16 05 07 or 16 05 08</p>	<p>16 05 06* - laboratory and analytical chemicals (e.g. chemical reagents) containing hazardous substances, including mixtures of laboratory and analytical chemicals - extraction mixtures, post-reaction mixtures, culture media, etc.</p>
	<p>16 05 07* - used inorganic chemicals containing hazardous substances (e.g. expired chemical reagents)</p>
	<p>16 05 08* - used organic chemicals containing hazardous substances (e.g. np. expired chemical reagents)</p>
	<p>16 03 07* - metallic mercury</p>



# Laboratory waste

## Hazardous waste

- should be collected in disposable, durable, moisture- and chemical-resistant, single-seal **yellow** containers or bags
- bags and containers should be filled to 2/3 of the maximum volume
- it is unacceptable to open once-closed containers or single-use bags



ODPADY NIEBEZPIECZNE	
KOD I RODZAJ MAGAZYNOWANYCH ODPADÓW <sup>1)</sup>	
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ZAWARTOŚĆ <sup>2)</sup>	
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## Laboratory waste

### Non-hazardous waste

- should be collected in disposable, durable, moisture- and chemical-resistant **blue** containers or bags
- one should be guided by the information contained in the safety data sheet of the substance in question



## Medical waste

Waste generated in connection with the provision of health care services and the conduct of medical research and experiments

Infectious waste	Hazardous waste	Non-hazardous waste
18 01 02* - body parts and organs, as well as blood containers and preservatives for storing blood (excluding 18 01 03)	18 01 06* - chemicals, including chemical reagents, containing hazardous substances	18 01 01 - surgical and treatment instruments and their remains (excluding 18 01 03)
18 01 03* - other waste that contains live pathogenic microorganisms or their toxins and other forms capable of transmitting genetic material that are known or reliably believed to cause diseases in humans and animals	18 01 08* - cytotoxic and cytostatic drugs	18 01 07 - chemicals, including chemical reagents other than listed in 18 01 06
		18 01 09 – drugs other than listed in 18 01 08

## Veterinary waste

Waste generated in connection with the examination, treatment of animals or provision of veterinary services, as well as in connection with scientific research and animal experiments


<b>Infectious waste</b>	<b>Hazardous waste</b>	<b>Non-hazardous waste</b>
18 02 02* - other waste that contains live pathogenic microorganisms or their toxins and other forms capable of transmitting genetic material that are known or reliably believed to cause diseases in humans and animals	18 02 05* - chemicals, including chemical reagents, containing hazardous substances	18 02 01 - surgical and treatment instruments and their remains (excluding 18 02 02)
	18 02 07* - cytotoxic and cytostatic drugs	18 02 06 - chemicals, including chemical reagents other than listed in 18 02 05
		18 02 08 - drugs other than listed in 18 01 08

# Medical and veterinary waste

## Infectious waste

- should be collected in disposable, durable, moisture- and chemical-resistant, single-seal **red** containers or bags
- bags and containers should be filled to 2/3 of the maximum volume
- it is unacceptable to open once-closed containers or single-use bags




	<b>ODPADY MEDYCZNE</b>
	Rodzaj odpadu - KOD:.....
<b>Uniwersytet Mikołaja Kopernika w Toruniu</b> <b>Wydział Nauk Biologicznych i Weterynaryjnych</b>	
REGON: 000001324	
Data, godzina otwarcia:.....	
Data, godzina zamknięcia:.....	



## Hazardous waste

- should be collected in disposable, durable, moisture- and chemical-resistant, single-seal **yellow** containers or bags
- bags and containers should be filled to 2/3 of the maximum volume
- it is unacceptable to open once-closed containers or single-use bags




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REGON: 000001324	
Data, godzina otwarcia:.....	
Data, godzina zamknięcia:.....	



## None-hazardous waste

- should be collected in disposable, durable, moisture- and chemical-resistant **blue** containers or bags
- bags and containers should be filled to 2/3 of the maximum volume
- it is unacceptable to open once-closed containers or single-use bags



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REGON: 000001324	
Data, godzina otwarcia:.....	
Data, godzina zamknięcia:.....	



## Hazardous waste label template

<p><b>ODPADY NIEBEZPIECZNE</b></p> <p>KOD I RODZAJ MAGAZYNOWANYCH ODPADÓW <sup>1)</sup></p> <p>.....</p> <p>.....</p> <p>.....</p> <p>ZAWARTOŚĆ <sup>2)</sup></p> <p>.....</p> <p>.....</p> <p>.....</p> <p>ADRES MIEJSCA MAGAZYNOWANIA ODPADÓW I DATA ROZPOCZĘCIA ICH MAGAZYNOWANIA W DANYM MIEJSCU <sup>3)</sup></p> <p>1) .....</p> <p>2) .....</p> <p>3) .....</p> <p>4) .....</p> <p>INNE INFORMACJE <sup>4)</sup></p> <p>.....</p> <p>.....</p> <p>.....</p>
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If hazardous waste is placed in packages, containers, tanks or bags, with a capacity of more than 5 liters, a label shall be placed on each package, container, tank or bag:

1 - in accordance with the waste catalog


2 - a description of the contents of the package, if the designation of the type of waste does not indicate with sufficient precision the substance, object or material - the names of chemical compounds, the presence of heavy metals, etc.

3 - to be filled in separately for each subsequent waste storage location

4 - the label may also contain other information about the stored waste, in particular, industry designations, such as the name of the department



## Medical waste label template

	<b>ODPADY MEDYCZNE</b> Rodzaj odpadu - KOD:.....
<b>Uniwersytet Mikołaja Kopernika w Toruniu</b> <b>Wydział Nauk Biologicznych i Weterynaryjnych</b>  REGON: 000001324	
Data, godzina otwarcia:.....  Data, godzina zamknięcia:.....	

The container or bag of medical waste at the site shall have a visible identifying marking that includes:

- the code of the medical waste stored in it;
- the name of the medical waste generator;
- the REGON number of the medical waste generator;
- the date and time of opening (start of use);
- the date and time of closure.