

Title: Hazardous Waste Management Guide

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Prevention Service (SerP) *Hazardous Waste Management*



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Note to Readers

This English version of the guide is a translation of the original French document and has been provided to facilitate access to the information for non-French-speaking users. Although care has been taken to provide an accurate translation, minor errors or inaccuracies may occur.

In case of any discrepancy, ambiguity, or inconsistency between the French and English versions, the **French version shall prevail and remains the official reference document.**

We appreciate your understanding and welcome any comments or suggestions that may help improve future editions of this translation.

Acknowledgements

This guide draws on the "Guide to Chemical Waste Management at GxABT", written by Mr Nicolas Flamand, Waste Management Adviser at the University of Liège – Gembloux Agro-Bio Tech. I sincerely thank him for sharing his documents, for our discussions and for sharing his expertise.

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Further thanks to Yann Lannoës for his practical expertise.

LABELS TO PRINT

Foreword

In our private lives, we use hazardous products every day, often without even realising it: oils, batteries, solvents, adhesives, paints, varnishes, resins, drain cleaners, cleaning products and so on.



A discarded button cell battery can pollute
1 m³ of soil and 1,000 m³ of water for 50 years.



Whether synthetic or naturally derived, they generate significant amounts of waste or effluent. Considered individually, some may be hazardous to human health and/or the environment.

Although we also store and use chemical agents in the workplace, they cannot be compared with products intended for the general public. For ordinary consumers, the European Union has introduced a series of measures to prevent or limit exposure to hazardous substances, including child-resistant closures, simplified and additional information, bans on placing certain products on the market, different formulations and lower concentrations.¹²³



One of the obligations of manufacturers/suppliers of hazardous substances is to **inform users about the hazards** they present. However, the general public and professionals are not informed in the same way. The main differences are shown below:

	General public	Professionals
Hazard pictograms	✓	✓
Product use	✓	✗
Safety Data Sheet (SDS)	✗	✓
Precautionary statements	Simplified wording	Technical wording
Child-resistant closure	✓	✗
Tactile warning of danger	✓	✗
Pure or highly concentrated substances	✗	✓
Carcinogenic, mutagenic and reprotoxic substances (CMR)	✗	✓

Using chemical agents, regardless of their hazardous properties, generates waste. With rare exceptions, this waste may also be hazardous. Whether highly hazardous, slightly hazardous or non-hazardous, the precautionary principle means **that all waste resulting from the use of chemical agents will always be treated as hazardous waste.**



Definition of waste (Directive 2008/98/EC) ⁴

"Any substance or object which the holder discards or intends or is required to discard."

Definition of hazardous waste (Directive 2008/98/EC)

"Any waste which displays one or more of the hazardous properties listed in Annex III to the Waste Framework Directive."

Managing hazardous waste can be challenging. In addition to practical considerations, all necessary precautions concerning packaging, storage, transport and disposal must be taken into account.

Teaching and research continue to evolve. The same applies to waste management, particularly the management of chemical waste from laboratories. This guide aims to clarify hazardous waste management at UNamur. Its purpose is to ensure the best possible safety and environmental conditions throughout the process: from collecting hazardous substances in laboratories, through interim storage in

¹Requirements governing precautionary statements differ depending on whether a substance is intended for the general public or professional users.

²Example: "Warning! Do not *use together with other products. May release dangerous gases (chlorine).*" This statement must appear on the label of a product intended for the general public that contains a chlorine concentration exceeding 1%.

³This applies to the most hazardous carcinogenic, mutagenic and reprotoxic (CMR) products.

⁴Directive 2008/98/EC is the Waste Framework Directive. It was subsequently amended by Directive 2025/1892 of 10 September 2025, with the aim of improving the prevention and reduction of food and textile waste throughout the European Union.

our waste storage rooms, to removal by our service provider. Regulatory compliance and the economic and environmental impact of our waste are also key considerations.

Effective management of our hazardous waste therefore has four objectives:

- Ensure safety in our laboratories and hazardous waste storage rooms;
- Reduce the amount of waste we produce and our environmental impact;
- Comply with regulatory requirements concerning storage, transport and other matters;
- Reduce the costs generated by our hazardous waste.



This guide describes the management of hazardous chemical and biological waste. Although radiological risk takes priority in the risk hierarchy, it is much less common at UNamur and is not covered in this guide. This risk is associated with naturally occurring radioactive substances such as uranium, radium and radon, or artificial substances such as californium and americium, which emit ionising radiation. If you need to dispose of radioactive substances, always contact the SerP Radiation Protection Officer at the generic address radioprotection@unamur.be.



For issues involving biological hazards, contact the SerP Biosafety Officer at the generic address biosecurite@unamur.be.

Waste- hazard hierarchy	 >  >      >
	Radiological > Biological > Chemical > Non-hazardous

Purpose of this guide

Waste management tailored to UNamur's specific needs

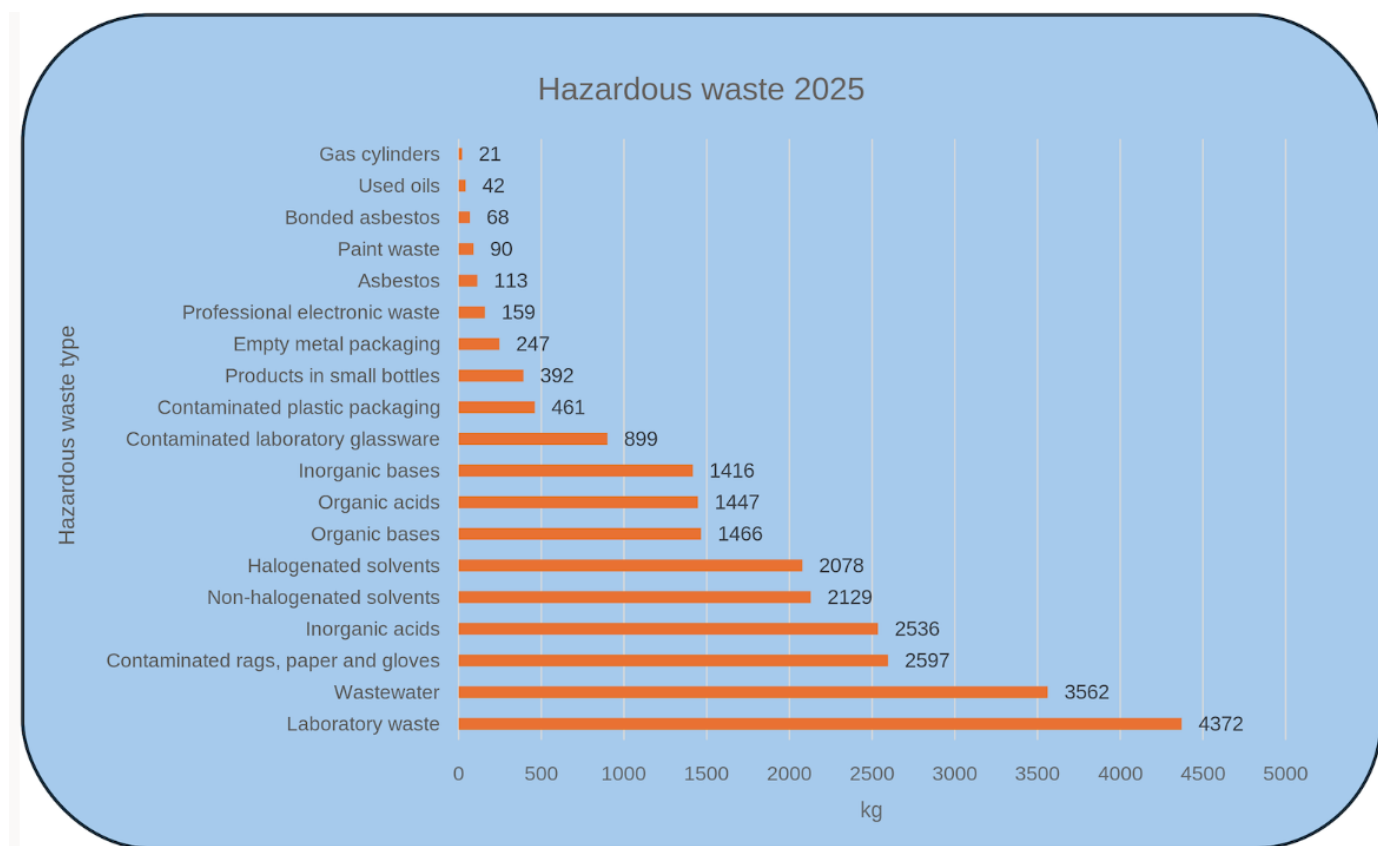
One of the main challenges in chemical waste management is that, with rare exceptions, each waste item consists of a mixture of substances.

In theory, it is always possible to characterise waste precisely. However, this level of characterisation is unnecessary provided the waste producer supplies a minimum amount of information.

To manage hazardous waste effectively, it is important to understand the main categories produced by UNamur.



In 2024, laboratories made a concerted effort to remove obsolete products from their cupboards. Consequently, "small-packaged products", meaning products in their original containers, and "laboratory waste", consisting mainly of unknown waste and waste not assigned to a specific stream and therefore attracting the highest disposal charges, accounted for a substantial proportion of our hazardous waste.



These waste streams decreased in 2025. By contrast, the "wastewater" stream increased considerably. Contaminated cloths, paper and gloves also account for a substantial proportion of our hazardous waste.

More than a procedure, this guide aims to improve the segregation of chemical waste. Above all, it is **intended as** a practical document. It brings together essential information to make life easier for waste producers while ensuring safe and environmentally responsible waste management.

At the forefront of sustainable development

A faculty that aims to lead the way in sustainable development must manage its waste as effectively as possible.



This is one reason why it is essential to follow the waste segregation procedures in place, particularly when hazardous waste is involved.

The foundation of sound waste management is prevention. Certain technical advances make it possible to use fewer chemical agents. In some cases, less hazardous substitute products are available. Wherever possible, these options should always be preferred.

Using hazardous products efficiently also reduces the amount of hazardous waste produced.



"The easiest waste to dispose of is the waste you did not produce."

— Anonymous

It is also essential to understand the sometimes-unexpected consequences of incorrect segregation.

5 reasons to segregate hazardous waste correctly



A matter of principle

UNamur aims to be at the forefront of sustainable development. Sound waste management is naturally part of this commitment.



A regulatory reason

"Waste shall be managed without endangering human health or harming the environment, and in particular:

1. without creating risks to water, air, soil, fauna or flora;
2. ... It is prohibited to abandon, discharge or manage waste:
 1. outside locations designated or authorised for that purpose by a local authority or any other authority responsible for preserving public property or public health; or
 2. without complying with this decree and its implementing measures."⁵

This applies to all waste and especially to hazardous waste.

In the Walloon Region, hazardous waste is defined as "any waste displaying one or more of the hazardous properties listed in Annex 1" to the Walloon Decree of 9 March 2023 on waste, material circularity and public cleanliness.

⁵Articles 32 and 33 of the Walloon Decree of 9 March 2023 on waste, material circularity and public cleanliness.

**Walloon Decree of 9 March 2023****Annex 1. Hazardous Properties of Waste**

- Explosive (HP1)
- Oxidising (HP2)
- Flammable (HP3)
- Irritant – skin irritation and eye damage (HP4)
- Specific Target Organ Toxicity (STOT) / Aspiration Toxicity (HP5)
- Acute Toxicity (HP6)
- Carcinogenic (HP7)
- Corrosive (HP8)
- Infectious (HP9)
- Toxic for Reproduction (HP10)
- Mutagenic (HP11)
- Release of an Acute Toxic Gas (HP12)
- Sensitising (HP13)
- Ecotoxic (HP14)
- Waste capable of displaying one or more hazardous properties listed above that are not directly exhibited by the original waste (HP15)

This list also includes waste presumed to possess hazardous properties. This applies to laboratory waste resulting from any handling of chemical agents.

**A safety reason**

Because of their properties, chemical agents and the resulting waste may cause physical injury, as with unstable products such as explosives and organic peroxides or corrosive products such as acids and bases, and/or damage health, as with toxic, carcinogenic, teratogenic, mutagenic, reprotoxic or irritant products.

Even when chemical waste is managed using clear procedures, provided those procedures are followed, risks associated with handling, storage, use and transport remain and must be taken into account.

**An environmental reason**

Hazardous waste can contaminate water, air and soil. As a matter of principle, all laboratory waste is considered potentially hazardous. Even when it does not directly threaten health, it is often hazardous to the environment.

**An economic reason**

Collecting, repackaging where necessary, transporting and treating chemical waste is very expensive. Chemical waste disposal charges depend not only on quantities but also on the nature and packaging of the waste.

**Remember!**

Identify waste correctly, assign it to the right category and avoid mixing to ensure safer, less costly hazardous waste management.



Two examples illustrate how correct waste segregation directly affects disposal costs:

- A jerrican containing used ethanol, a non-halogenated solvent, that has not been identified will be classified as "unknown" by authorised waste collectors. Its disposal cost will then increase almost sevenfold because it is treated as "laboratory waste".
- A small amount of organic base mistakenly placed in a waste jerrican intended for inorganic bases will cause the entire contents to be reclassified as an organic base, which costs almost three times more to dispose of.

Finally, labour remains one of the largest expenses when an authorised collector attends. When procedures are followed correctly, collection is completed more quickly, significantly reducing ancillary costs.

Characterising laboratory waste

This exercise may seem complicated. Chemical waste generally consists of mixtures whose component proportions are difficult to quantify.

Chemical waste does not need to be characterised precisely, but it must be differentiated sufficiently to meet the intended safety and economic objectives.

The simplest and most effective technique is to use decision trees or flowcharts, which make it easier to characterise liquid and solid chemical waste.

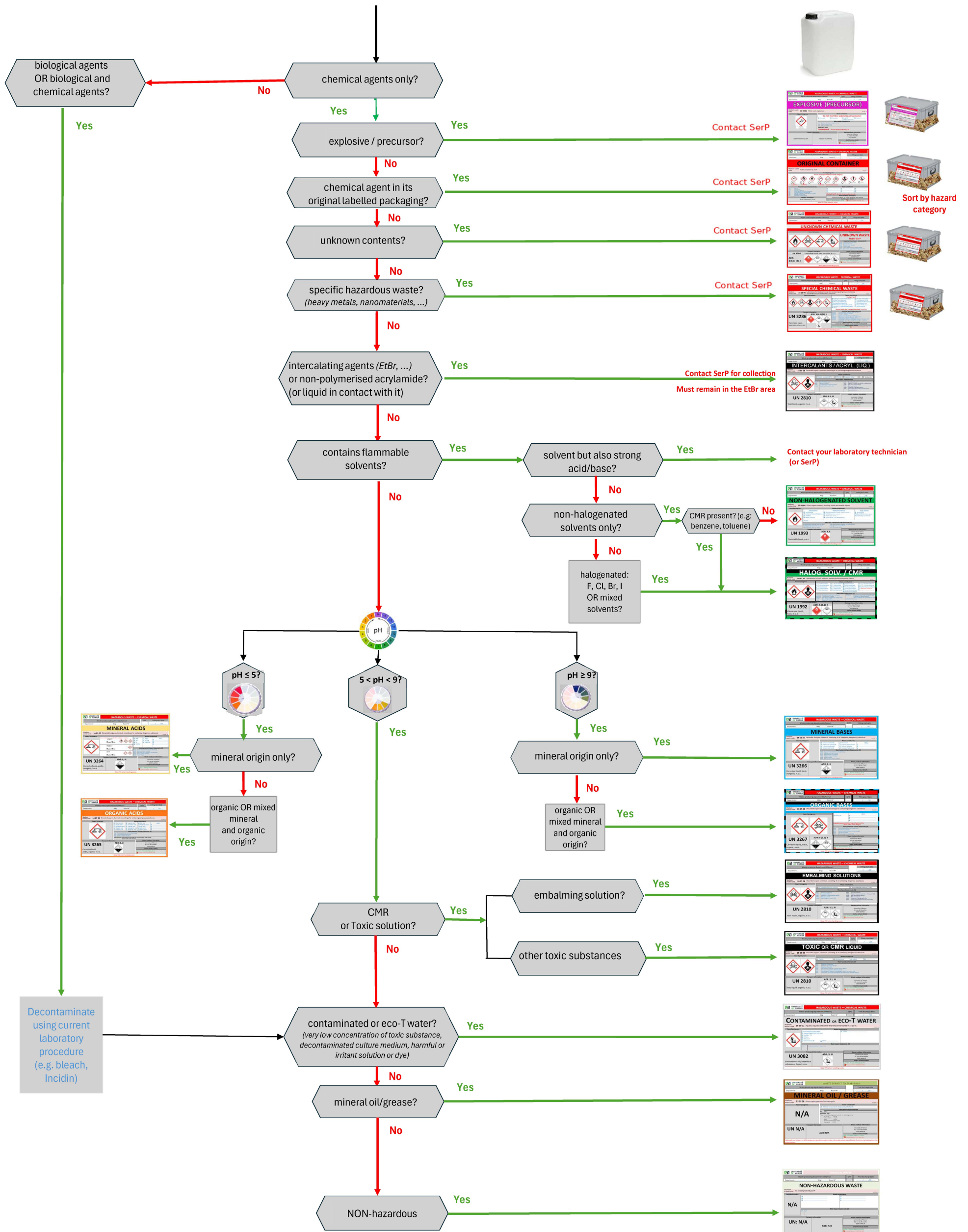
These decision trees, reproduced below in A3 format:

- can be downloaded from Terranostra;
- can be ordered from the SerP as laminated A3 sheets by emailing the generic address dechets-dangereux@unamur.be.

 **If in doubt, always contact the SerP for help characterising your waste:** dechets-dangereux@unamur.be.

LABORATORY WASTE - LIQUID

DECISION TREE - LIQUID



DECISION TREE - SOLID



Identification

Colour codes

A colour code has been established for chemical waste labels so that the nature of the waste can be identified at a glance. This makes it easier to maintain physical segregation between potentially incompatible chemical wastes.

FUCHSIA	Explosives	
RED	Products in their original containers Unknown chemical waste Special chemical waste Solid residues (salts, technological substances)	Potentially all hazards    
BLACK	Intercalating agents (EtBr, etc.) or acrylamide Embalming solutions CMR or toxic liquids	 
GREEN	Non-halogenated solvents	
GREEN + BLACK stripes	Halogenated solvents	 
LIGHT ORANGE	Inorganic acids	
DARK ORANGE	Organic acids	
BLUE	Inorganic bases	
BLUE + BLACK stripes	Organic bases	 
GREY	Wastewater	
LIGHT GREEN	NON-hazardous chemical waste Contaminated sharp/piercing consumables Contaminated NON-sharp/non-piercing consumables Contaminated glass Contaminated plastic and metal Equipment/containers contaminated with a hazardous substance	No pictogram / No UN number
LIGHT GREEN	Medicinal products Solids contaminated with medicinal products	No pictogram / No UN number
BROWN	Mineral oils and greases	Waste subject to mandatory take-back No pictogram / No UN number

Specific colour codes:

- **Red:** potentially all hazards – unknown waste/hazards
- **Black:** toxic/CMR properties – harmful to health. For example, halogenated solvents are both flammable and CMR. A black stripe has therefore been added to the green solvent label. The same applies to organic bases.
- **Light green:** no hazard pictogram – traces of hazardous substances only

Labels

The colour code makes it easy to identify the category of chemical waste, but this alone is not sufficient. Labels provide the necessary and legally required information to:

- identify the waste producer;
- list the substances present in the waste;
- warn of potential hazards;
- provide transport information.

Pre-completed standard labels have been created to simplify laboratory waste management and standardise the identification system.

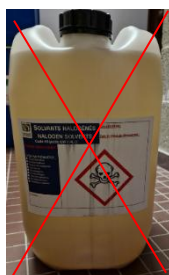
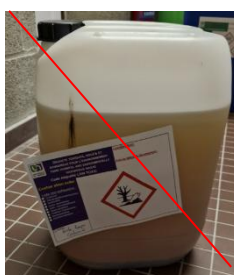
These A5 labels contain all essential information.

Information appears in boxes with the following backgrounds:

- **pink:** the identification number of the hazardous chemical waste under the Walloon waste classification, as required by law;
- **grey:** useful information;
- **white:** to be completed by the laboratory. As the waste producer, you only need to:
 - complete the fields for:
 - *the name of the department;*
 - *the building and room numbers where the waste is produced/stored;*
 - *the date on which filling the jerrican began;*
 - *+ where applicable, an indication of pH, determined using pH paper;*
 - tick the substances present in the waste and/or add the names of any other substances in the jerrican.

Labels: instructions for use

- **Print** the labels on self-adhesive sheets (see appendices) or order **labels from the SerP:** dechets-dangereux@unamur.be.
- Identify the waste collection jerrican with a label as **soon as it is put into use**.
- Affix the self-adhesive label to one side **of the** jerrican, never on the cap side where drips may occur. Apply the entire label firmly so that it does not peel off.
- **Complete** the blank fields; pH is optional.
- **Tick the** substances present in the waste and add further details if necessary.



Place an identification label on the container **as soon as it is put into service**, not only before disposal. This label also includes the mandatory CLP pictograms required by regulations for the storage of hazardous products in your laboratories.



Information included on labels

UNIVERSITÉ DE NAMUR		HAZARDOUS WASTE – CHEMICAL WASTE	
Waste-producing department (UNamur)		(pH)	Filling start date
Department: ①	Bldg: ②	Room N°: ②	/...../20..... ④
⑤ ORGANIC ACIDS			
⑥ Walloon waste code	16 05 08 Discarded organic chemicals consisting of or containing dangerous substances		⑦ 10/2025 - v1
Hazard pictograms ⑧ 		Waste constituents ☐ formic acid ☐ caproic acid ☐ citric acid ☐ acetic acid ☐ enanthic acid ☐ (thio)lactic acid ☐ propionic acid ☐ caprylic acid ☐ malic acid ☐ butyric acid ☐ pelargonic acid ☐ oxalic acid ☐ valeric acid ☐ thiolactic acid ☐ tartaric acid ☐ other ⑨	
		Main/potential hazard statements (H) ⑩ H314 Causes severe skin burns and eye damage H226 Flammable liquid and vapour H311 Toxic in contact with skin Important note: even diluted or inherently non-corrosive organic acids must be placed in this waste category.	
Transport information UN 3265 Corrosive liquid, acidic, organic, n.o.s.		Waste producer information University of Namur 61, rue de Bruxelles 5000 NAMUR ⑫ Useful contact details SerP (J-F. Pirlet): 0470/21.29.93 ⑬ Poison Centre: 070/245.245	
ADR: 8, II ⑪ 			
Wear PPE when handling waste			

No.	heading	description
①	Waste-producing service/department	Name of the department, service, unit or laboratory in which the chemical waste was produced.
②	Building and room numbers	Location where the waste is temporarily stored within your service. Identify it using the building and room numbers shown on each door.
③	pH	Optional indicative value, particularly useful for special chemical waste and unknown waste.
④	Filling start date	Date on which filling the jerrican began.
⑤	Waste category	Category to which the waste belongs. Each category has one specific colour code.
⑥	Walloon waste code	The Walloon Waste Office (OWD) has established a waste catalogue in which each type of waste, whether hazardous or not, is identified by a code associated with a description. Identifying our waste using this Walloon code is a regulatory requirement.
⑦	Label date and version	Date (month/year) and version number of the label.
⑧	Hazard pictograms	These pictograms specify the hazardous properties of the chemical agents present in the waste.
⑨	Substances present in the waste	A non-exhaustive list of chemical agents has been drawn up for each chemical waste category. Tick the substances present in the jerrican. Space is also provided to list other waste components.
⑩	Hazard statements	Main or potential hazard statements (H statements) corresponding to the chemical agents listed in item 9.
⑪	Transport information	Codes and pictograms required for transporting dangerous goods: UN number and its definition/proper shipping name, plus the ADR road-transport pictogram. The consignor is responsible for identifying waste in accordance with ADR.
⑫	Information about the waste producer	Registered address of the organisation producing the waste (UNamur).
⑬	Useful contact details	Contacts in the event of an incident involving chemical waste, such as personal injury, a spill, or a jerrican becoming distorted or swollen.

Liquid chemical waste

General information

Most chemical waste produced by UNamur laboratories is liquid. Three basic principles must be followed to ensure that each type of waste enters the correct **waste** stream:

- never dispose of chemical waste in sinks or general-waste bins;
- select a jerrican size appropriate to the quantity or frequency of waste production to avoid storing chemical waste for too long;
- affix a correctly completed label in the appropriate waste-category colour to every jerrican.



Following these principles simplifies logistics for everyone involved: the waste producer, the person responsible for waste within a department, the person collecting waste from departments and the final authorised collector. It also provides the best conditions for reducing risks associated with handling, transporting and storing hazardous waste.

Packaging

Jerricans

All liquid chemical waste must be collected in HDPE jerricans supplied by the SerP. They are available in 1, 5, 10 and 20 litre capacities and are:⁶

- single-use; ⇒ to prevent incompatibility risks;
- UN-approved; ⇒ approved for transporting dangerous goods;
- selected according to the density of the waste to be collected; ⇒ a jerrican must not weigh more than 20 kg.



Choosing the correct jerrican capacity is therefore essential, even before waste is produced.

Jerricans: instructions for use

- do not reuse jerricans; this is tolerated only for oils and greases;
- 1 waste type = 1 jerrican;
- high-density chemical waste: maximum 10 litres;
- **do not fill jerricans beyond 90% of their capacity;**
- do not store waste unnecessarily or for too long: two 10-litre jerricans are better than one 20-litre jerrican.



Did
you
know?

The **carriage** of dangerous goods by road (**ADR**), including chemical waste, is strictly regulated in the European Union.

For such transport, packaging must meet several requirements, including UN performance **certification**.

For plastic jerrycans (HDPE), the manufacturing date is moulded into the container. From that date onward, the jerrycan/cap combination guarantees leak-tightness and mechanical resistance for 5 years.

Once this period has elapsed, the jerrycans must be repacked (overpacked) by approved hazardous-waste collectors, resulting in **significant additional costs**.



UN packaging
certification mark



Moulded
manufacturing date

⁶High-density polyethylene: a plastic resistant to most chemical agents.

Caps

The closure is the weakest part of any package. It is therefore essential to use the caps supplied with the jerricans; spare caps can be provided.

Caps: instructions for use

Standard caps, supplied with the jerrican by the SerP, are suitable **for** all chemical waste.

When sealing the jerrican for the final time, tighten the cap fully until it clicks.



Whether the jerrican is being filled or is ready for collection, ensure that it remains **closed and that the cap is securely tightened**.

Advice: Caps have a ratcheted tamper-evident ring, which can sometimes make opening and closing difficult. If a chemical waste jerrican has to be opened and closed frequently, the safety ring may become damaged.

When sealing the jerrican for the final time, use a new cap with an intact safety ring and tighten it fully. Once you hear a click, the cap is tight enough.

The damaged cap can then be discarded with contaminated jerricans in the red bin labelled "Contaminated plastic and metal".



To limit repeated opening and closing of containers (which may damage the safety ring), or leave containers open, **the use of safety funnels (ball funnels) is recommended.**

These are available as stock items from economat@unamur.be.



Categories of liquid chemical waste – identification

A decision tree (see appendix) can be used to determine which category a particular waste belongs to.

The following sections provide additional information to confirm or refine that classification, including examples of chemical agents.



Who better than the waste producer knows its composition?

Identify your chemical waste!



When **choosing the category** for your chemical waste, do not consider only its individual components. Also consider any **new** compounds that have been formed, or could form, as a result of the interaction between multiple chemical agents.

Because handling chemical waste may present the same risks as handling "pure" chemical agents during an experiment, specific risks are listed at the end of each waste-category description.

The SerP also has a mixture-hazard assessment tool that determines whether a mixture or waste retains the hazardous properties of its individual components. For example, waste containing 5% of a corrosive substance (H314) remains corrosive. Contact the SerP for assistance characterising your waste.

This chemical waste management guide does not replace the knowledge and experience of the waste producer, particularly when that person is a chemist or biochemist.

If in doubt, always ask a designated contact in your department or laboratory for help, or contact your waste management adviser at the generic address dechets-dangereux@unamur.be.

Explosives and explosive precursors

Explosives and explosive precursors

Explosives are chemical substances that react to produce high-temperature, high-pressure gases, resulting in destructive effects. Explosive precursors are chemicals that, although legally available and used in various applications, can be used to manufacture explosives if they fall into the wrong hands. Examples include picric acid, which is relatively stable in solution but becomes explosive when crystallised, and, more generally, all peroxides and nitrated compounds.

Examples

Picric acid, nitric acid, ammonium nitrate, hydrogen peroxide, potassium nitrate, ammonium perchlorate, potassium chlorate, etc.

Notes

Possession of explosives requires authorisation. UNamur's operating permit does not allow explosives to be stored. If you need to dispose of explosives or explosive precursors, **always contact the SerP at the generic address dechets-dangereux@unamur.be.**

Explosives and explosive precursors must be removed separately. Do not mix explosive precursors with one another or with other products.

The form is titled 'HAZARDOUS WASTE - CHEMICAL WASTE' and 'EXPLOSIVE (PRECURSOR)'. It includes fields for 'Waste-producing department (UNamur)', 'Department', 'Bldg', 'Room N°', 'pH', and 'Filling start date'. A 'Wallon waste code' of 16 04 03 is entered. The 'Hazard pictograms' section shows the 'EXPLOSIVE SUBSTANCE' pictogram. The 'Waste constituent' section lists 'Picric acid', 'Peroxides', 'HNO3', and 'Nitro derivatives'. The 'Main hazard statements (H)' section lists H203, H204, and H205. An 'Important note' states 'Do not mix! One substance per container' and 'Contact SerP : dechets-dangereux@unamur.be'. The 'Transport information' section is marked 'To be relabelled by SerP' and 'Explosive or oxidising'. The 'Waste producer information' section lists 'University of Namur, 61, rue de Bruxelles, 5000 NAMUR'. The 'Useful contact details' section lists 'SerP (J.-P. Pirlot): 0470/21.29.93' and 'Poison Centre: 070/245.245'.

Chemical waste potentially presenting all hazards

Obsolete chemical agents in their original packaging

Although some chemical agents, mainly solids, change very little over time, their shelf life is not unlimited. These substances often remain reactive, but not under the same conditions as a new product. Their purity is no longer guaranteed, which may significantly affect experimental results.

Dates shown on packaging relate not only to the contents but also to the guaranteed integrity of the container and its closure. Old packaging presents risks both during handling and while in storage.

The form is titled 'HAZARDOUS WASTE - CHEMICAL WASTE' and 'ORIGINAL CONTAINER'. It includes fields for 'Waste-producing department (UNamur)', 'Department', 'Bldg', 'Room N°', and 'Filling start date'. A 'Wallon waste code' is entered. The 'Hazard pictograms' section shows multiple pictograms with the instruction 'Sort as far as possible by hazard category'. The 'Potential hazard statements (H)' section lists H203, H204, H205, H206, H207, H208, H209, H210, H211, H212, H213, H214, H215, H216, H217, H218, H219, H220, H221, H222, H223, H224, H225, H226, H227, H228, H229, H230, H231, H232, H233, H234, H235, H236, H237, H238, H239, H240, H241, H242, H243, H244, H245, H246, H247, H248, H249, H250, H251, H252, H253, H254, H255, H256, H257, H258, H259, H260, H261, H262, H263, H264, H265, H266, H267, H268, H269, H270, H271, H272, H273, H274, H275, H276, H277, H278, H279, H280, H281, H282, H283, H284, H285, H286, H287, H288, H289, H290, H291, H292, H293, H294, H295, H296, H297, H298, H299, H300, H301, H302, H303, H304, H305, H306, H307, H308, H309, H310, H311, H312, H313, H314, H315, H316, H317, H318, H319, H320, H321, H322, H323, H324, H325, H326, H327, H328, H329, H330, H331, H332, H333, H334, H335, H336, H337, H338, H339, H340, H341, H342, H343, H344, H345, H346, H347, H348, H349, H350, H351, H352, H353, H354, H355, H356, H357, H358, H359, H360, 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Over time, and depending on storage conditions such as exposure to heat, cold or UV radiation, packaging becomes fragile. Old reagents should therefore be handled as little as possible and always with care.

To avoid these situations, it is strongly recommended that an inventory of chemical **stocks in laboratories** and storage areas be established and kept up to date. Such an inventory is a legal requirement and must be updated annually. Expired or unused **chemicals in small** containers should be systematically disposed of. There is no benefit in keeping hazardous products that are not being used.⁷⁸

Avoid gathering bottles together loosely or placing them in unsuitable locations such as evacuation ways, cellars or attics.



Notes

To dispose of small containers, place them in grey **bins** previously lined **with** vermiculite. Wherever **possible, separate them by hazard category**. Use as many grey bins as necessary. The SerP can supply them on request at⁹

dechets-dangereux@unamur.be.

Explosives must always be placed in a separate bin. The same applies to oxidising agents and gas cylinders/aerosols.

Although they bear the same corrosive pictogram, small containers of acids and bases must not be placed in the same **bin because they may react violently on contact**.

If a **container is badly damaged**, preferably place it in a separate bin as well.



Handling chemical agents, even when contained in closed containers, must **always** be handled while wearing, at a minimum, protective clothing (lab coat), safety glasses, and appropriate gloves.



⁷To simplify chemical inventories, an inventory tool can be downloaded from Terranostra; search for "inventaire chimique".

⁸UNamur's integrated permit dated 10 April 2024 (p. 68/129).

⁹Non-combustible mineral that has undergone heat treatment to increase its volume twentyfold. Used for its thermal and acoustic insulation properties and in other professional applications, including drainage, transport, animal feed and horticulture.

Special chemical waste

This category includes waste that cannot be assigned to another category, either because it is highly complex, consisting of chemical mixtures whose proportions are difficult to establish, or because it contains particularly toxic, carcinogenic and/or polluting substances.

Liquids containing nanomaterials or heavy metals also belong in this category.

Examples

3,3'-Diaminobenzidine (DAB), hydrocyanic acid and derivatives, acrylonitrile, aniline (phenylamine, aminobenzene), ethanal (acetaldehyde), methyl methacrylate, formaldehyde/formalin, methyloxirane (propylene oxide), N,N-dimethylformamide, pentane-1,5-dial (glutaraldehyde), chromic acid, dimethylmercury, heavy metals (Sb, As, Cd, Cr, Cu, Sn, Hg, Ni, Pb, Se, Te, Tl), high concentrations of iodine or bromine, nanomaterials, etc.

Notes

This category includes some waste that cannot be classified in other categories. However, it is not a catch-all category.

Note: This procedure also aims to substantially reduce the amount of waste incorrectly classified as special chemical waste, which attracts the highest disposal costs.

Special chemical waste + any other waste? → Special chemical waste: ■ + ... = ■

Use the smallest suitable jerrican, preferably 1 or 5 litres, and do not mix special wastes with one another or with other substances.

Always notify the SerP at the generic address dechets-dangereux@unamur.be.

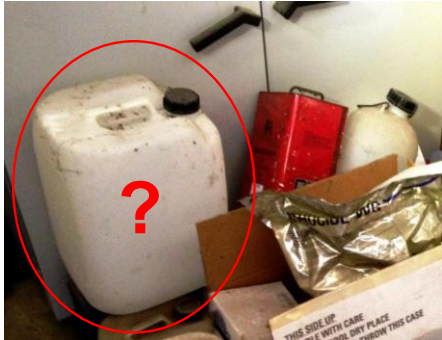
⚠ Potential specific risks

This waste may present any hazard, but more specifically may be:

- flammable (hydrocyanic acid, ethanal, methyloxirane);
- toxic/harmful if swallowed (aniline, cresol, methanal, methyloxirane, pentane-1,5-dial);
- fatal/toxic in contact with skin (hydrocyanic acid, aniline, cresol, methanal);
- fatal/toxic if inhaled (hydrocyanic acid, aniline, methanal, pentane-1,5-dial);
- cause severe skin burns and eye damage (cresol, methanal, pentane-1,5-dial);
- suspected of causing genetic defects (aniline, methyloxirane);
- may damage fertility or the unborn child (formamide, N,N-dimethylformamide, nitrobenzene, toluene);
- suspected of causing cancer (aniline, ethanal, formamide, methanal, methyloxirane);
- cause or may cause serious damage to organs (aniline, formamide).

Unknown chemical waste

When a laboratory is tidied, or after a doctoral student or colleague leaves, jerricans of unknown origin and/or contents are sometimes found.



HAZARDOUS WASTE – CHEMICAL WASTE			
Waste-producing department (UNamur)		(pH)	Filling start date
Department:	Bldg:	Room N°:	/ / 20
UNKNOWN CHEMICAL WASTE			
Hazard pictograms		Waste constituents	
		UNKNOWN WASTE Notify SerP	
UN 3286		Suspected main hazard statements (H)	
ADR: 3 (6.1) (8), II		H226: Flammable liquid and vapour H302: Harmful if swallowed H312: Harmful in contact with skin H314: Causes severe skin burns and eye damage H410: Very toxic to aquatic life with long lasting effects	
Transport information Flammable liquid, toxic, corrosive, N.O.S.		Waste producer information University of Namur 61, rue de Bruxelles 5000 NAMUR	
Useful contact details SerP (J.-P. Piriot): 0470/21.29.93 Poison Centre: 070/245.345			

Wear PPE when handling waste

Under the **precautionary** principle, never attempt to identify their contents. To ensure collection, simply identify them with the "Unknown chemical waste" label.

Notes

Always notify the SerP at the generic address dechets-dangereux@unamur.be.



Intuitively, nobody would taste an unknown substance.
Yet people still regularly smell substances in an attempt to identify them!
This practice is strictly prohibited!

Unknown substance?

- Do not open it
- Do not smell it
- Do not mix it
- **Identify is an UNKNOWN WASTE** and dispose of it accordingly



Solvents

Solvents, used to dissolve, dilute or extract other substances, account for a significant proportion of the liquid chemical waste produced at UNamur. Their primary distinguishing feature is their flammability.

Because storing flammable substances is subject to regulatory and safety restrictions, including a maximum of 50 litres per non-fire-rated compartment and a prohibition on basement storage, flammability appears near the top of our waste-characterisation decision tree to ensure that it receives the necessary attention.

Halogenated solvents

Halogenated solvents are fluorinated, chlorinated, brominated or iodinated hydrocarbons: compounds containing **at least one atom from the halogen family (F, Cl, Br or I)**.



Although benzene **and** toluene **contain** no halogen atoms, their strong CMR properties mean that they must also be disposed of through this stream. The same applies to any other particularly toxic or CMR non-halogenated flammable solvents.

Examples

2-Bromobutane, 2-bromopropane, bromobenzene, bromoethane, 1-chlorobutane, 2-chlorobutane, chlorobenzene, 1,2-dichloroethane (ethylene dichloride), 1,4-dibromobutane, dichloromethane (methylene chloride), fluorobenzene, iodine (diiodine), 1-iodobutane, 2-iodobutane, iodobenzene, tetrachloroethylene (perchloroethylene), tetrachloromethane, 1,1,1-trichloroethane, 1,1,2-trichloroethene, trichlorofluoromethane, trichloromethane (chloroform), 1,1,2-trifluoro-1,2,2-trichloroethane, etc.

Notes

Halogenated solvents are often carcinogenic, mutagenic and/or toxic to reproduction (CMR).
Wherever possible, safer alternative solvents should be used.

If alternatives are unavailable, use these solvents sparingly and under appropriate conditions, particularly in a fume hood.

To highlight their harmful effects on health, a black stripe has been added to the green solvent label in accordance with our colour code.

Halogenated solvents + non-halogenated solvents? → Halogenated solvents:  +  = 

Potential specific risks

- flammable or highly flammable liquids and vapours (2-chlorobutane, bromoethane, fluorobenzene, chlorobenzene);
- toxic/harmful if inhaled (iodine, 1-iodobutane, tetrachloromethane);
- suspected of causing cancer (bromoethane, chloroform, dichloromethane, tetrachloromethane);
- may damage fertility (trichlorofluoromethane);
- suspected of causing genetic defects (1,1,2-trichloroethene);
- cause or may cause serious damage to organs (chloroform, tetrachloromethane).

Did you know?

Halogens are highly reactive chemical elements belonging to Group 17 of the periodic table (Fluorine (F), Chlorine (Cl), Bromine (Br), Iodine (I), Astatine (At), and Tennessine (Ts)). They are characterized by their high electronegativity and their ability to form salts with metals. Among the stable elements, **chlorine, fluorine, bromine, and iodine** are often used as **bactericides** because of their **high toxicity**.

think about it

Your solvent contains at least one atom from the halogen family (F, Cl, Br, I) or has a particularly toxic or **CMR** (Carcinogenic, Mutagenic, or Reprotoxic) character (benzene or toluene, for example)?
→ Place it in the **halogenated solvent** waste container.

halogènes
groupe 17
colonne 7

F	Cl	Br	I	At	Ts
Fluorine	Chlorine	Bromine	Iodine	Astatine	Tennessine

Non-halogenated solvents

Non-halogenated solvents are liquids used to dissolve or dilute other substances without containing halogens, providing safer and less toxic alternatives.

They include hydrocarbons and oxygenated solvents, among others.

Examples

Hydrocarbons: pentane, 2-methylbutane (isopentane), hexane, heptane, cyclohexane, pyridine, styrene, xylene, etc.

Oxygenated solvents:

- **Alcohols:** methanol (methyl alcohol), ethanol (ethyl alcohol), propan-1-ol (propyl alcohol), propan-2-ol (isopropyl alcohol), butan-1-ol (butyl alcohol), butan-2-ol, 2-methylpropan-1-ol (isobutyl alcohol), 2-methylpropan-2-ol (tert-butyl alcohol), octan-1-ol, pentan-1-ol (amyl alcohol).
- **Ketones:** acetone, butan-2-one (butanone).
- **Esters:** ethyl acetate (acetic ether).
- **Ethers:** 2-methoxy-2-methylpropane (MTBE), ethyl tert-butyl ether (ETBE), oxacyclopentane (tetrahydrofuran, THF), ethoxyethane (diethyl ether).

Also acetonitrile, ethane-1,2-diol (ethylene glycol), formamide, propanal (propionaldehyde), etc.

Notes

In addition to their flammability, many non-halogenated solvents also pose health risks.

Non-halogenated solvents + halogenated solvents? → Halogenated solvents:  +  = 

⚠ Potential specific risks

- flammable, highly flammable or extremely flammable liquids and vapours (almost all non-halogenated solvents);
- may be fatal if swallowed and enter the airways (cyclohexane, pentane, etc.);
- toxic in contact with skin (methanol, etc.).

UNIVERSITÉ DE NAMUR																					
HAZARDOUS WASTE – CHEMICAL WASTE																					
Waste-producing department (UNamur)		(pH)	Filling start date																		
Department:	Bldg: Room N°:		/ / 20																		
NON-HALOGENATED SOLVENT																					
Walloon waste code 07 01 04 Other organic solvents, washing liquids and mother liquors																					
Hazard pictogram	Waste constituents																				
	<table border="0"> <tr> <td>hydrocarbons</td> <td>oxygenated solvents</td> <td>other solvents</td> </tr> <tr> <td>☐ cyclohexane</td> <td>☐ alcohols (methanol, ethanol, propanol, butanol...)</td> <td>☐ acetonitrile</td> </tr> <tr> <td>☐ pentane, hexane, heptane...</td> <td>☐ ketones (acetone, butanone...)</td> <td>☐ glycol ethers (ethylene glycol...)</td> </tr> <tr> <td>☐ pyridine</td> <td>☐ esters (ethyl acetate...)</td> <td>☐ propanal (propionaldehyde)</td> </tr> <tr> <td>☐ xylene, styrene</td> <td>☐ ethers (MTBE, ETBE, tetrahydrofuran...)</td> <td></td> </tr> <tr> <td>☐ other :</td> <td colspan="2"></td> </tr> </table>			hydrocarbons	oxygenated solvents	other solvents	☐ cyclohexane	☐ alcohols (methanol, ethanol, propanol, butanol...)	☐ acetonitrile	☐ pentane, hexane, heptane...	☐ ketones (acetone, butanone...)	☐ glycol ethers (ethylene glycol...)	☐ pyridine	☐ esters (ethyl acetate...)	☐ propanal (propionaldehyde)	☐ xylene, styrene	☐ ethers (MTBE, ETBE, tetrahydrofuran...)		☐ other :		
	hydrocarbons	oxygenated solvents	other solvents																		
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☐ other :																					
Main and potential hazard statements (H)																					
H224 Extremely flammable liquid and vapour		H304 May be fatal if swallowed and enters airways																			
H225 Highly flammable liquid and vapour		H311 Toxic in contact with skin																			
H226 Flammable liquid and vapour		H350 May cause cancer																			
Transport information																					
UN 1993		ADR: 3, II																			
Flammable liquid, n.o.s.																					
Waste producer information																					
University of Namur 61, rue de Bruxelles 5000 NAMUR																					
Useful contact details																					
SerP (U-F, Prolong) 0470/21.29.93 Poison Centre: 070/245 245																					

Corrosive substances

Inorganic acids

Inorganic acids are inorganic chemical compounds capable of releasing protons (H^+ ions) in aqueous solution.

They include **hydrohalic** acids such as $[HCl]$, $[HBr]$ and $[HI]$, and oxoacids, **molecules** with a central atom in a high oxidation state surrounded by oxygen atoms, such as $[HNO_3]$, $[H_2SO_4]$ and $[HClO_4]$.

Examples

Hydrobromic acid, hydrochloric acid, hydrofluoric acid, iodic acid, hydroiodic acid, nitric acid, perchloric acid, phosphoric acid, sulfuric acid, etc.

Notes

Nitric **acid** $[HNO_3]$ is an acid but also an explosive precursor, as are all nitrated derivatives. **Sulfuric acid** $[H_2SO_4]$ and **hydrofluoric acid** $[HF]$ require a specific disposal stream. Indicate in the designated fields whether the waste contains any of these acids. They should not be mixed with other acids.

Inorganic acids + organic acids? → Organic acids: + =



Because they may contain **toxic and carcinogenic chromium(VI) ions** $[Cr^{6+}]$, chromic acid $[H_2CrO_4]$, chromium trioxide $[CrO_3]$ and their derivatives must always be classified as "Special chemical waste".

Potential specific risks

- cause severe skin burns and eye damage;
- may be corrosive to metals;
- may intensify fire; oxidisers: $[HIO_3]$, $[HNO_3]$, $[HClO_4]$;
- fatal in contact with skin or if inhaled: $[HF]$.

Organic acids

There are two types of organic acids: carboxylic acids $[R-COOH]$, which account for most organic acids, and sulfonic acids $[R-SO_3H]$.

Examples

Methanoic acid (formic acid), ethanoic acid (acetic acid), propanoic acid (propionic acid), butanoic acid (butyric acid), pentanoic acid (valeric acid), hexanoic acid (caproic acid), heptanoic acid (enanthic acid), octanoic acid (caprylic acid), nonanoic acid (pelargonic acid), citric acid, lactic acid, thiolactic acid, malic acid, ethanedioic acid (oxalic acid), salicylic acid, tartaric acid, trifluoroacetic acid, methanesulfonic acid, para-toluenesulfonic acid, etc.

Notes

Although less corrosive than inorganic acids, organic acids are not risk-free and must be handled carefully. This waste category also includes mixtures of organic and inorganic acids.

Organic acids + inorganic acids? → Organic acids: + =

Potential specific risks

- cause severe skin burns and eye damage;
- flammable liquids and vapours (methanoic/formic acid $[HCOOH]$, concentrated acetic acid $[CH_3COOH]$);
- toxic in contact with skin and harmful if swallowed (hexanoic acid $[C_5H_{11}COOH]$).

Inorganic bases

Inorganic bases are chemical compounds that, unlike acids, can accept one or more protons.

The inorganic bases most commonly used in laboratories are solutions of alkali hydroxides: [NaOH], [KOH], [Ca(OH)₂], [Ba(OH)₂], etc.

This category also includes other alkaline inorganic substances: chlorites [ClO₂-], hypochlorites [ClO-], ammonia solution [NH₄OH],

Examples

Ammonia solution, sodium chlorite, barium hydroxide, calcium hydroxide (slaked lime), caesium hydroxide, potassium hydroxide (caustic potash), sodium hydroxide (caustic soda), sodium hypochlorite (bleach),

Note

Inorganic bases + organic bases? → Organic bases:  +  = 

⚠ Potential specific risks

- cause severe skin burns and eye damage;
- may be corrosive to metals.



D'une manière générale et contrairement à une idée reçue, **les acides ne sont pas plus dangereux que les bases**. Celles-ci pénètrent les tissus plus profondément que les acides.

Les brûlures qui résultent d'un contact direct avec une base sont souvent plus importantes et plus graves (surtout pour les yeux).

Organic bases

Most organic bases consist of amines and alkaloids.

In addition to being basic, most of these substances are toxic.

To highlight their toxicity, a black stripe has been added to the blue base label in accordance with our colour code.

Examples

Azine (pyridine), benzimidazole, histidine, imidazole, methylamine, phosphazenes, trimethylamine, etc.

Note



Because some of these bases are also flammable, including methylamine, trimethylamine and pyridine, our decision tree assigns them to the "Halogenated/CMR solvents" waste stream.

Organic bases + inorganic bases? → Organic bases:  +  = 

⚠ Potential specific risks

- cause severe skin burns and eye damage;
- harmful if swallowed or inhaled (methylamine, trimethylamine);
- flammable or highly flammable liquids and vapours (pyridine; in solution: methylamine, trimethylamine).

Chemical waste posing particularly serious health hazards

Intercalating agents or acrylamide (liquid)

Ethidium bromide (EtBr) is an intercalating agent, meaning that it can bind to DNA and induce changes in the genome. This property classifies it as a mutagen. In recent years, new substances have been marketed as alternatives to EtBr, including SYBR Safe, GelRed and propidium iodide. Very few toxicological studies are available for these substances. However, to achieve their intended effect, they must intercalate between DNA strands or otherwise interact with DNA. These mechanisms suggest toxicological properties similar to those of ethidium bromide. Until further studies become available, the same preventive measures should therefore be applied to all intercalating agents.

HAZARDOUS WASTE — CHEMICAL WASTE

Waste-producing department (UNamur) _____ Filling start date: ____/____/20____

Department: _____ Bldg: _____ Room N°: _____

INTERCALANTS/ACRYL. (LIQ.)

Walloon waste code: **16 05 08** Discarded organic chemicals consisting of or containing dangerous substances

Waste constituents: ☐ Ethidium bromide (EtBr) ☐ SYBR Safe ☐ Propidium iodide ☐ Acrylamide

Main hazard statements (H)

H302	Harmful if swallowed	H332	Toxic if inhaled
H312	Harmful if in contact with skin	H350	May cause genetic defects
H332	Harmful if in contact with skin or if inhaled	H410	May cause genetic defects
H350	May cause genetic defects	H411	May cause cancer
H410	May cause genetic defects	H412	May cause cancer
H411	May cause cancer	H412	May cause cancer
H412	May cause cancer	H412	May cause cancer

Transport information: **UN 2810** ADR: 6.1, III

Toxic liquid, organic, n.o.s.

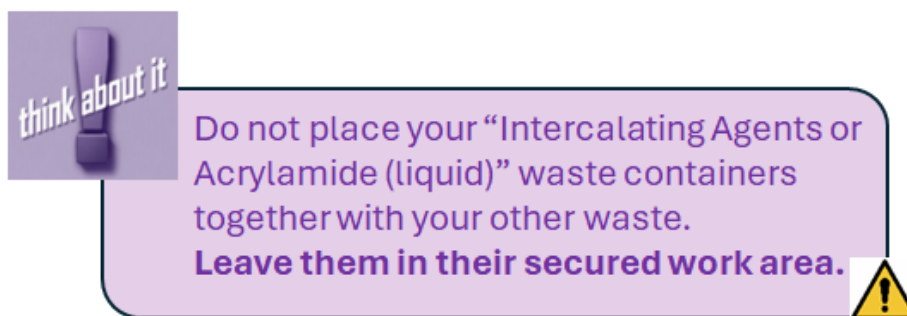
Waste producer information: University of Namur, 61, rue de Bruxelles, 5000 NAMUR

Useful contact details: SerP (J-F Priet): 0470/21.29.93, Poison Centre: 070/245.245

Wear PPE when handling waste

Likewise, liquid acrylamide, widely used in our laboratories, is also classified as carcinogenic, mutagenic and toxic to reproduction (CMR). The same precautions as for intercalating agents must therefore be taken when handling it for disposal.

Handle this waste with all necessary precautions. To minimise the risk of uninformed individuals coming into contact with these substances, jerricans labelled "Intercalating agents or acrylamide (liquid)" **will be collected directly by the waste manager from their clearly identified work area. They must not be placed with other waste in conventional collection areas.** On request at dechets-dangereux@unamur.be, the hazardous waste manager will collect them directly from their secure work area.



Examples

Liquid or semi-liquid mixtures and preparations containing, or having been in contact with, ethidium bromide, liquid acrylamide or propidium iodide.

Note

Acrylamide polymerised into a gel is no longer considered CMR; the same applies to liquids in contact with such gels.

Solid waste, including gels, disposable equipment and cloths, that has potentially been in contact with liquid chemical agents from the "Intercalating agents or acrylamide (liquid)" category must be placed in a sealed bucket bearing the specific label "Intercalating agents or acrylamide (solids)".

Toxic and CMR liquids

Other aqueous liquid waste containing at least **one toxic or CMR** substance, and not assigned to another category by our decision tree because it is neither flammable nor corrosive, must also be identified with a black label. Under our colour code, black identifies substances harmful to health.¹⁰

Since the Royal Decree of 2 July 2023, Belgium has included **endocrine disruptors** in Title 2 of Book VI of the Code on Well-being at Work, initially applicable to CMR agents. The same precautions must therefore be taken with these substances. They must also be disposed of through this stream, and throughout this guide the term CMR includes substances with endocrine-disrupting properties.

Regularly updated information on substances identified as having endocrine-disrupting properties, and substances under investigation for such properties, is available in the [Endocrine Disruptor Lists](#). List I contains substances identified at European level as endocrine disruptors; List II contains substances currently undergoing evaluation at EU level; and List III contains substances identified as endocrine disruptors by the evaluating national authority in individual Member States.



Certain chemical agents may cause long-term health effects, whether exposure occurs in the short, medium or long term.

Hazard class / category	Pictogram	Signal word	Hazard statement
Carcinogenicity, category 1A or 1B		Danger	H350: May cause cancer
Germ cell mutagenicity, category 1A or 1B		Danger	H340: May cause genetic defects
Reproductive toxicity, category 1A or 1B		Danger	H360: May damage fertility or the unborn child
Endocrine disruption – effects on human health (categories 1 and 2)	No dedicated pictogram	Danger (category 1) / Warning (category 2)	EUH380: May cause endocrine disruption in humans. EUH381: Suspected of causing endocrine disruption in humans.

For endocrine disruptors, no dedicated pictogram is currently available. In this case, EUH statements should be considered in the same way as H-statements.

¹⁰Carcinogenic, Mutagenic and Reprotoxic chemical agents. Endocrine disruptors are now also included.

Examples

Nitrobenzene, aniline, phenol waste,

Formalin-based embalming solutions and salt-based embalming solutions, for which a specific label has been created.

HAZARDOUS WASTE – CHEMICAL WASTE

Waste-producing department (UNamur) _____ (pH) _____ First discharge date: ____/____/20____

Department: _____ Bldg: _____ Room N°: _____

EMBALMING SOLUTIONS

Walloon waste code: **16 05 08** Discarded organic chemicals consisting of or containing dangerous substances

Hazard pictogram:  

Waste constituents:

☐ Salt-based embalming solutions ☐ Formaldehyde solution (3-7%)

Transport information:

UN 2810 Toxic liquid, organic, n.o.s.

ADR: 6.1, III

Waste producer information:

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details:

SerP (J.-F. Pinlot): 0470/21.29.93
Poison Centre: 070/245 245

Wear PPE when handling waste



Cancérigène, cancérogène, carcinogène, oncogène: what is the difference?

According to Larousse, both *cancérigène* and *cancérogène* are accepted French terms, although *cancérogène* is generally considered more technical.

Some medical specialists nevertheless distinguish between the following terms:

- *Cancérigène*: promotes the development of cancer
- *Cancérogène*: promotes the onset of cancer
- *Carcinogène*: promotes the occurrence of skin cancer
- *Oncogène*: a gene that may contribute to the development of certain cancers (not necessarily related to an external agent)

Polluting waste

Wastewater

Some substances may not pose serious hazards to humans but are ecotoxic, meaning that they adversely affect ecosystems and their organisms, including fauna, flora and microorganisms. All biocides, such as bleach, fall into this category.

Liquid laboratory waste containing very low concentrations of toxic substances, or culture media decontaminated in accordance with the laboratory's applicable procedure, must be disposed of through the "Wastewater" stream.

HAZARDOUS WASTE – CHEMICAL WASTE

Waste-producing department (UNamur) _____ (pH) _____ First discharge date: ____/____/20____

Department: _____ Bldg: _____ Room N°: _____

CONTAMINATED OR ECO-T WATER

Walloon waste code: **16 10 02** Aqueous liquid wastes other than those mentioned in 16 10 01

Hazard pictogram: 

Waste constituents:

Culture media treated with:

- ☐ Bleach (NaClO) (5–10% v/v)
- ☐ Incidin - P3
- ☐ Vircon
- ☐ Ethanol
- ☐ Umonium 38
- ☐ Other: _____

Main hazard statements (H):

H302: Harmful to aquatic life

Transport information:

UN 3082 Environmentally hazardous substance, liquid, n.o.s.

ADR: 9, III

Waste producer information:

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details:

SerP (J.-F. Pinlot): 0470/21.29.93
Poison Centre: 070/245 245

Wear PPE when handling waste

Examples

Culture medium treated with bleach (NaClO, 5–10% by volume), Incidin, Virkon, ethanol, Umonium 38 or another biocide.

Other liquid substances presenting only ecotoxic hazards must also be disposed of through this stream.

Mineral oils and greases

Although not normally described as "chemical" waste, mineral oils and greases are pollutants and must be collected carefully. Their disposal stream is similar to that for chemical waste. Although they are not classified as dangerous goods under ADR, they are subject to mandatory take-back under the Walloon waste regulations.¹¹

Examples

Mineral or equivalent synthetic oils and greases, engine oils and lubricating oils for equipment.

Note

These oils and greases must not contain PCBs.

	WASTE SUBJECT TO TAKE-BACK	
	Waste-producing department (UNAMUR)	
Department: Bldg: Room N°:	First discharge date/...../20.....	
<h1>MINERAL OIL / GREASE</h1>		
Walloon waste code 13 02 08 Other engine, gear and lubricating oils		
01/2025 - v1		
Hazard pictograms <div style="font-size: 48px; text-align: center;">N/A</div>	Waste constituents ☐ Mineral or equivalent oil/grease (synthetic oil)	
	Main hazard statements (H) N/A N/A	
	Important note These mineral oils and greases must meet the following criteria: <ul style="list-style-type: none"> • Cl, Bv, L, F < 0,1 % • water content < 0,0 % • PCBs < 0,0 % • chemical contaminants < 0,0 % • flash-point > 55 °C 	
Transport information <div style="font-size: 36px; text-align: center;">UN N/A</div> <div style="text-align: center;">ADR: N/A</div>	Waste producer information University of Namur 61, rue de Bruxelles 5000 NAMUR Useful contact details SerP (J-F Piriot): 0470/21.29.93  Poison Centre: 870/245.245	

Although not subject to ADR dangerous-goods transport rules, oils and greases are polluting. Prevent any release into the environment.



Just **1 litre** of mineral oil can spread over **2000 m²** of water surface and pollute up to **1 million litres** of water.

NON-hazardous chemical waste

As a precaution, and to establish the good habit of never pouring hazardous chemicals down the sink, we apply a general rule: no chemical product may be poured down the sink, even if it bears no hazard pictogram.

Non-hazardous chemical waste from your laboratories can therefore be disposed of using the corresponding light-green label.

UNIVERSITÉ DE NAMUR		CHEMICAL WASTE	
Waste-producing department (UNamur)		(pH)	First discharge date
Department:	Bldg: Room N°:		/...../20.....
NON-HAZARDOUS WASTE			
Walloon waste code <i>To be completed by SerP</i> (U) (P) (E) : ...			
Hazard pictogram <div style="display: flex; align-items: center;"> ☐ ☐ ☐ </div> <div style="font-size: 2em; font-weight: bold; text-align: center;">N/A</div>	Waste constituents <div style="display: flex; align-items: center;"> ☐ ☐ ☐ </div>		
Main hazard statements (H) <div style="display: flex; justify-content: space-between;"> N/A N/A </div>			
Transport information <div style="font-size: 2em; font-weight: bold; text-align: center;">UN: N/A</div>		Waste producer information University of Namur 61, rue de Bruxelles 5000 NAMUR Useful contact details SerP (J-F. Pirloz): 0470/21.29.93 Poison Centre: 070/245 245	
ADR: N/A			



¹¹ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

Solid chemical and biological waste (and similar waste)

General information

To avoid creating too many chemical waste categories, all laboratory waste that is neither liquid nor paste-like is considered solid waste.

Whether biological material, solid chemicals such as reagents or residues including salts, contaminated soil, filters and molecular sieves; consumables such as gloves, cloths, tips, tubes and microscope slides; packaging such as the paper, cardboard or plastic surrounding those consumables; or containers such as laboratory glassware and glass, plastic or metal bottles that contained chemical agents, none of this waste may enter a non-hazardous waste stream such as general-waste bins, PMC recycling bags or glass-recycling containers.



Solid laboratory waste can be divided into five main categories:

- **ADR Class 6.2 biological materials:** infectious substances containing pathogens such as bacteria, viruses, parasites or fungi that may cause serious disease in humans or animals;¹²
- **chemicals:** obsolete solid reagents or solid residues from laboratory procedures, including salts and contaminated soil. This category also includes technological materials such as filters and molecular sieves potentially contaminated with a chemical;
- **consumables and packaging:** consumables that have been in contact with biological and/or chemical substances, including gloves, paper, cloths, pipette tips, tubes, HPLC cuvettes and needles, together with their packaging;
- **containers:** laboratory glassware, bottles, vials and empty jars;
- **obsolete laboratory equipment** containing a hazardous substance, such as a mercury thermometer, or contaminated with a hazardous substance.



Remember that whenever radioactive substances need to be disposed of as waste, you must always contact the SerP Radiation Protection Officer at radioprotection@unamur.be.



For issues involving biological hazards, contact the SerP Biosafety Officer at the generic address biosecurite@unamur.be.

The diagram below shows the hierarchy of waste-related risks.

Waste- hazard hierarchy	 >  >  >					
	Radiological	>	Biological	>	Chemical	>

¹²ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

Packaging for the biological or chemical waste stream

In a laboratory, contamination may be dual: a solid may present biological and/or chemical hazards. The **general rule is that infectious biological contamination always takes precedence over chemical contamination.**

Biologically contaminated waste follows a dedicated disposal stream. It is collected in yellow UN 3291-certified clinical waste containers bearing the biohazard pictogram. For environmental and economic reasons, alongside the traditional rigid yellow plastic containers, the SerP now also supplies a cardboard version with an inner plastic bag providing double packaging.



All **biologically** contaminated waste must be disposed of in a **UN3291 Azur Pack**. Select the appropriate pack based on the **weight** of the waste and whether it is **sharp, cutting, piercing, or no.**



The guiding principle is straightforward: **the chosen container must be resistant to the waste it contains.**

The rigid plastic clinical waste container can hold up to 25 kg. It should be used for heavy and/or sharp or piercing waste such as needles, scalpels, glass pipettes and microscope slides.

Lightweight waste that is unlikely to pierce the double packaging formed by a waste bag and cardboard box may be placed in the cardboard version. Examples include gloves, cloths and paper, tips, tubes, plastic pipettes and any packaging that may have become biologically contaminated. The maximum weight per cardboard container is 15 kg. Glass and needles must never be placed in these containers.



When using cardboard waste bins, **ensure that the maximum fill level is not exceeded.** This will allow the bag to be closed with a **goose-neck seal**, as required.



Maximum fill line

Follow the assembly and final-closure instructions printed on the cardboard containers. The yellow bag must not be overfilled and must be sealed using the swan-neck technique.



Categories of solid chemical waste/products and similar waste – identification

Solid chemicals in their original containers

As with liquid chemicals, obsolete solid reagents in their original packaging must be placed in grey bins previously lined with vermiculite for disposal.¹³

Wherever possible, **separate them by hazard category**. Use as many grey bins as necessary. The SerP can supply them on request at dechets-dangereux@unamur.be.

Any explosives and explosive precursors must always be placed in a separate bin bearing the corresponding label.

Note

Solid waste may be placed in the same grey bin as liquid waste if both have the same hazard categories.

Solid reaction residues and technological materials

Some laboratory procedures produce precipitates. If an experimental protocol requires their analysis, they are separated from the aqueous phase. These precipitates, present as salts, must be treated as hazardous waste even when chemically neutral.

Examples

Inorganic salts such as chlorides, fluorides, sulfates and phosphates; organic salts such as acetates and methanoates.

Note: Dissolved salts do not need to be separated from the semi-liquid fraction unless required by the procedure. A mixture of semi-solid and liquid phases is treated as liquid chemical waste, as is paste-like waste.

This stream also includes technological materials such as filters and molecular sieves. This term covers substances that are not inherently hazardous but have been used during laboratory procedures. If they have been in contact with hazardous substances, directly or indirectly, they must be treated as hazardous waste.

Examples

Powdered silica, molecular sieves, filter cartridges, filtration materials, photographic film, Celite (diatomaceous earth), etc.

Note

Because this waste comes in many shapes and volumes, no specific container is required. However, the container must be made of a material resistant to its contents and must bear the "Solid residue (salt, technological material)" label specifying the substances present.

¹³Non-combustible mineral that has undergone heat treatment to increase its volume twentyfold. Used for its thermal and acoustic insulation properties and in other professional applications, including drainage, transport, animal feed and horticulture.

Solids contaminated with chemical agents

Solids contaminated with an intercalating agent or unpolymerised acrylamide

This waste category was created specifically for solids that have been in contact with intercalating chemical agents or that originate from controlled areas where such agents are used. It has been extended to all solid materials potentially exposed to liquid, incompletely polymerised acrylamide, including technological materials, consumables and packaging.

Examples

Gels, wiping cloths/paper, gloves, laboratory equipment, consumables, packaging, work clothing and personal protective equipment contaminated with intercalating agents such as ethidium bromide, SYBR Safe or propidium iodide, or with unpolymerised acrylamide.

UNIVERSITÉ DE NAMUR		HAZARDOUS WASTE – CHEMICAL WASTE	
Waste-producing department (UNamur)		Filling start date	
Department:	Building:	Room N°:	
INTERCALANT / ACRYL. (SOLID)			
Walloon waste code 15 02 02 Absorbents, filter materials, wiping cloths and protective clothing contaminated by dangerous substances			
Hazard pictograms  		Waste constituents ☐ Gels or wipes/paper, gloves, laboratory equipment, clothing and PPE contaminated with: ☐ Ethidium bromide (EBr) ☐ SYBR Safe ☐ Propidium iodide ☐ Unpolymerised acrylamide ☐ Other:	
Main hazard statements (H) H302 Harmful if swallowed H332 Harmful if inhaled H360D May damage the unborn child H410 May cause genetic defects H411 May cause cancer H412 Suspected of damaging fertility H413 Causes rapid damage through prolonged or repeated exposure H414 May cause genetic defects		Transport information UN 2811 Toxic solid, organic, n.o.s. ADR: 6.1, III  	
Waste producer information University of Namur 61, rue de Bruxelles 5000 NAMUR		Useful contact details SerP (H-F Pilot): 0470/21.29.93 Poison Centre: 070/245.245	
Wear PPE when handling waste			



Notes

This waste must be double-packaged to minimise exposure of both laboratory staff and those handling it downstream. Place it in a blue plastic bag inside a blue clinical-waste bucket bearing the specific label "Intercalating agent or acrylamide (solid)". While the bucket is in use, arrange the plastic bag so that it completely covers the rim and extends sufficiently down the outside to prevent contamination of the edges.

Before disposal, laboratory personnel must close the waste bag and hermetically seal the bucket with its yellow lid.

To minimise the risk of uninformed individuals coming into contact with a bucket labelled "Intercalating agents or acrylamide (solid)", the waste manager will collect it directly from the clearly identified work area. It must not be placed with other waste in conventional collection areas. On request at dechets-dangereux@unamur.be, the hazardous waste manager will collect it directly from the secure work area.



Do not bring out septifa containers identified as "Intercalating Agents or Acrylamide (solid)" with your other waste. Keep them in their secure work area.



Consumables and packaging contaminated with other chemical agents

Although solids, including consumables and possibly their packaging, contaminated only with chemical agents other than intercalating agents or acrylamide are not assigned to the same disposal category as those chemical agents because they do not inherently present all the same hazards, they must still be treated as hazardous waste and must not be discarded with ordinary household waste.

All waste leaving a laboratory must be disposed of through a "Class B1" waste stream.



Walloon Government Decree on Hospital and Healthcare Activity Waste (Royal Decree of 30 June 1994):

- **Class A waste:** waste generated from accommodation, catering, kitchens, administrative offices, and similar activities.
- **Class B1 waste:** hospital and healthcare waste other than Class A and Class B2 waste; waste from medical-technical services and **laboratories**, excluding radioactive waste.
- **Class B2 waste:** infectious waste; laboratory waste presenting microbial contamination; blood and blood derivatives that may still present microbial contamination; and anatomical waste.

To select the safest container, a distinction is made between sharp or piercing waste and non-sharp waste, protecting everyone involved from removal through to destruction.



Sharps

Initially intended for hospital and healthcare waste, this waste category was extended to biology and microbiology laboratories and subsequently to all other laboratories.

SharpSafe containers are specifically designed to prevent needlestick injuries and cuts. They must therefore be used even where no biological risk is present. In an incident involving this type of waste, the puncture or cut itself is not the most serious consequence. The wound creates a pathway allowing external agents to enter the bloodstream directly. This **invasive nature** represents the greatest risk.

Examples

Syringes, needles, pipettes, broken glass, microscope slides and coverslips, scalpels, razor blades, Pasteur pipettes, capillary tubes, pins,



Notes

This waste must not contain liquids.

Do not exceed the fill line or obstruct the anti-splash flap. (The container has two closure settings: temporary and permanent.)

No additional identification label is required on SharpSafe containers. Simply use a marker to identify the waste producer, including building, room and department, and the date on which filling began.

think about it

Sharps, cutting or piercing items? → Use a dedicated container



Dedicated containers for B2-type waste

These containers are intended for the disposal of sharps and other piercing items:

- Piercing items**
- Cutting items**
- Sharp-edged items**

Needles, syringes, micropipettes, Pasteur pipettes, scalpels, small glass items, microscope slides and small pieces of glass...

WARNING!

Items placed in this type of container must not be retrievable by hand. Do not fill beyond the marked fill line.

SharpSafe containers are available in several sizes; the largest is particularly suitable for storing pipettes vertically.

Depending on the type and quantity, grey bins or blue clinical-waste buckets bearing the label "Contaminated sharp/piercing consumables" may also be used.

Examples:

- Large quantities of microscope slides placed in grey bins. Pay attention to the final weight and remember that the bin must subsequently be handled.
- Plastic pipettes arranged horizontally in clinical waste containers.



- A mixture of tips, tubes and plastic pipettes in a blue clinical-waste bucket.



UNIVERSITÉ DE NAMUR			HAZARDOUS WASTE – CHEMICAL WASTE	
Waste-producing department (UNamur)		Filling start date		
Department: _____	Bldg: _____ Room N°: _____	/...../20.....		
CONTAMINATED SHARP/PIERCING ITEMS				
Hazard pictograms	Waste constituents			
N/A	• Laboratory consumables used for physicochemical analyses (plastic pipettes, tips, vials, Eppendorf tubes, etc.) 			
	Important notes No items that have come into contact with biological agents			
Transport information	Waste producer information		Useful contact details	
UN: N/A	ADR: N/A University of Namur 61, rue de Bruxelles, 5000 NAMUR		SerP (U-F. Pifard): 0470/21.29.93 Poison Centre: 070/245.245	
Wear PPE when handling waste				

Contaminated NON-sharp consumables and packaging

For environmental and economic reasons, consumables that are not sharp, cutting or piercing, and therefore cannot puncture a standard waste bag, do not require containers as robust as clinical-waste buckets or *SharpSafe* containers. These containers are costly and require more energy to incinerate than a simple plastic bag.

Chemically contaminated NON-sharp/non-piercing consumables such as gloves, cloths, paper, weighing boats and certain rounded tubes may therefore be placed in orange plastic **bags**. Place these bags in rigid receptacles, such as white buckets, clearly identified with the label "Contaminated NON-sharp/non-piercing consumables".



When the orange bag is full, the laboratory technician closes it and places it in the waste collection area.

Orange bags were chosen to distinguish this B1 stream for non-infectious laboratory waste.

Consumable packaging, whether contaminated or not, may also be placed in these orange plastic bags. Remember that all waste leaving a laboratory must be disposed of through an appropriate stream: the B1 stream.

UNIVERSITÉ DE NAMUR		HAZARDOUS WASTE – CHEMICAL WASTE	
Waste-producing department (UNamur)		Date: / / 20	
Department:	Bldg: Room n°:		
CONTAMINATED NO-SHARP ITEMS			
Hazard pictograms 	Waste constituents Laboratory consumables used for physicochemical analyses or packaging (gloves, wipes, paper, weighing boats, etc. – contaminated non-sharp/non-piercing consumables)		
Important notes No items that have come into contact with biological agents			
UN N/A	Transport information ADR: N/A	Waste producer information University of Namur 61, rue de Bruxelles, 5000 NAMUR Useful contact details SerP (J.-F. Pirlet): 0470/21.29.93 Poison Centre: 070/245.245	
Wear PPE when handling waste			

Medicinal products

Although they bear no hazard pictogram or UN number, medicinal products are identified by code 20 02 32 under the Walloon waste classification and are disposed of through a dedicated stream.

A "Medicinal products" stream has therefore been created specifically for the pharmaceuticals laboratory of the Pharmacy Department (L03).

Capsules, **suppositories and other solid medicines without packaging or blister packs, together with tubes of cream**, must be placed in white buckets labelled "Medicinal products".

Tork paper with ointment residues, weighing paper with powder residues, packaging and blister packs, gloves and all contaminated consumables may enter the B1 stream. Dispose of them as "Contaminated NON-sharp/non-piercing consumables", as described above.

UNIVERSITÉ DE NAMUR		HAZARDOUS WASTE – CHEMICAL WASTE	
Waste-generating department (UNamur)		Date: / / 20	
Department:	Bldg: Room n°:		
MEDICINES			
Walloon waste code 20 02 32	Medicines other than those mentioned in 20 01 31		
Hazard pictograms N/A	Waste constituents ☒ Unpackaged capsules, suppositories, etc. ☒ Tubes of cream		
Main hazard statements (H) / /			
Important notes Medicine only - No packaging/blister packs, paper towels or gloves.			
UN: N/A	Transport information ADR: N/A	Waste producer information University of Namur 61, rue de Bruxelles 5000 NAMUR Useful contacts SerP (J.-F. Pirlet): 0470/21.29.93 Poison Centre: 070/245.245	

Containers contaminated with chemical agents



Glass

Most liquid chemical agents are supplied in brown glass bottles. Because these bottles have been in direct contact with chemical agents, they must be managed as hazardous waste.

Chipped, broken or obsolete laboratory glassware must also be placed in the same containers.

To limit the weight of containers requiring handling, glass containers contaminated with chemical agents must be placed in grey bins bearing the light-green "Contaminated glass" label.



Examples

Glass bottles that contained chemical agents; unused or chipped laboratory glassware such as beakers, graduated tubes and flasks.

Notes

Bottles that contained chemicals:

- must be empty but must not be rinsed;
- must be properly closed using their original caps;
- must not be intentionally broken.

Laboratory glassware:

- does not need to be washed;
- must not be too small → items or glass fragments belong in the sharps stream;
- even when uncontaminated, must not be placed in the food-glass recycling stream because laboratory-grade glass requires higher processing temperatures.



Grey bins for contaminated laboratory glassware: not just anything!

The grey bins intended to receive laboratory glass waste are partially emptied by hand. For the safety of the operator responsible for collecting this waste, please strictly follow the instructions below:

Glass waste not accepted	Why?	Solution
Bottles that are not completely empty	Risk of chemical reaction with other substances → <i>intoxication, fire</i> Downgrading of the waste stream → <i>extra cost</i>	Place these bottles in grey bins labeled "Product in original container"
Pasteur pipettes, micropipettes, microscope slides and coverslips, glass shards, ...	Risk during emptying of the grey bin → <i>punctures/cuts</i> → <i>projection of debris</i>	Place this waste in "SharpSafe" containers (see the "Piercing / cutting / sharp-edged items" waste stream)
Food glass (drinking glasses, bottles, ...) 	Incorrect waste treatment stream → <i>extra cost</i>	Place food-glass waste in the appropriate containers. This glass will then be taken by the "non-hazardous waste" service to the bottle bank. 



Plastic or metal

When not supplied in glass containers, chemical agents, mainly solids, are packaged in plastic (HDPE) or metal containers made of steel, tinplate, aluminium or similar materials.¹⁴

Because they have been in direct contact with chemical agents, these containers must be managed as hazardous waste.

Place these capped containers in large red bins bearing the label "Contaminated plastic and metal". Line each red bin beforehand with a transparent plastic bag to prevent contamination from any chemical drips.



Examples

Plastic or metal bottles and jerricans that contained chemical agents.

Notes

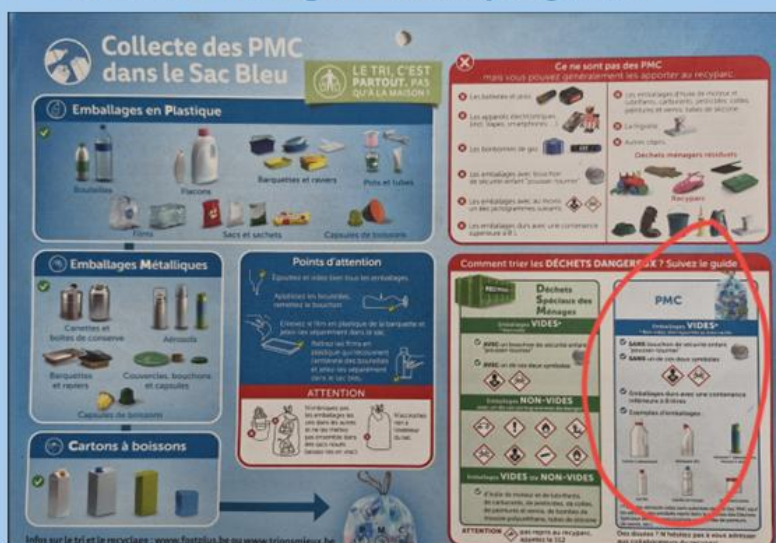
These plastic or metal containers:

- must be empty;
- do not need to be rinsed;
- should preferably have **their original caps securely screwed back on**;
- must be placed in a large red bin bearing the label "Contaminated plastic and metal". Line the bin beforehand with a transparent plastic bag.



Is your plastic or metal container:

- < 8 L
 - Free of any CMR or toxic hazard pictogram
- Place it in the regular PMC recycling stream.



¹⁴High-density polyethylene: a plastic resistant to most chemical agents.

Equipment containing or contaminated with chemical agents



Equipment containing mercury

Wherever a less toxic alternative exists and the application is not essential, measuring instruments containing mercury should be disposed of.

Examples

Thermometers,
pressure gauges,
barometers,
porosimeters, etc.



Note

Mercury is highly toxic in all forms, including metallic mercury, vapour and salts, and is carcinogenic.



Mercury has unusual physicochemical properties that have been exploited since antiquity. From the 17th century onward, it has been used to manufacture **measuring instruments**.

However, mercury is also **highly toxic** in its various forms (with neurological, cardiovascular and immune-system effects) and is **harmful to the environment**.

This is why the European Union has prohibited mercury in certain products (batteries, cosmetics, pesticides and biocides, and toys) and has sought to restrict the marketing of mercury-containing measuring devices (thermometers, sphygmomanometers, barometers, etc.).



Mercury is also among the hazardous substances restricted under the RoHS Directive, alongside lead, cadmium, hexavalent chromium, polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs).

Equipment contaminated with chemical agents

To protect the personnel responsible for removal, obsolete laboratory equipment must be decontaminated in accordance with the department's internal procedure using ethanol, bleach, Incidin or another suitable agent. It can then be disposed of through the non-hazardous waste stream by emailing dechets@unamur.be and attaching the **decontamination clearance** form. Contact the SerP for assistance completing the form.¹⁵

If equipment comes from an area dedicated to work with intercalating agents such as ethidium bromide or SYBR Safe, or with acrylamide, it must additionally bear the label "Equipment containing/contaminated with a hazardous substance". Always contact the SerP at dechets-dangereux@unamur.be for help establishing an appropriate decontamination procedure using sodium nitrite and hypophosphorous acid.

¹⁵Search for "Visa de décontamination" on Terranostra.

Precautions

Mixtures and incompatibilities

It is no coincidence that products used in chemical experiments are called "reagents": *they* are used precisely because of their capacity to react chemically.

In some applications, chemical agents are used without undergoing any real transformation. They then become waste whose composition differs little, if at all, from its original state. This applies, for example, to solvents used as the mobile phase in chromatography. Waste resulting from this application is relatively easy to characterise and therefore to treat.

In most cases, however, several chemical agents are used together or successively, creating a mixture that may be difficult to characterise and may generate unexpected risks.



Never trust an unlabelled container.
It must be collected **in its original condition**.
Do not pour **any other** waste into it.
Never transfer chemical waste to another container
→ **Unknown chemical waste**



Controlled mixtures

Apart from any gaseous effluents escaping from the reaction medium, a reaction produces a mixture containing reaction products and possibly residual excess reagents. When the procedure ends, this mixture becomes waste.

Although the quantities and proportions of the reagents and reaction products are not always precisely known, their nature should generally be predictable provided the chemical equations were established in advance.

These reaction products can therefore be regarded as a "controlled" mixture because their composition is understood and **managed**.

Uncontrolled chemical reactions

An "uncontrolled chemical reaction" *means any accidental event involving a chemical reaction that is not under control, whether thermal runaway or the accidental mixing of two incompatible products.*¹⁶



Laboratory Good Practices

To avoid any unpleasant surprises (explosions, release of toxic or flammable gases, excessive heat generation, violent polymerization, ...), it is strongly recommended to:

- write out the chemical equations for any (new) procedure or experiment;
- take into account:
 - ✓ any potential chemical incompatibilities (unintended or uncontrolled reactions);
 - ✓ the volumes involved;
 - ✓ the concentrations used;
 - ✓ the operating conditions (heating, cooling, etc.).

¹⁶Literature review on the development of uncontrolled chemical reactions in industry, INERIS, Accidental Risks Division, June 2000.

Chemical incompatibilities

Many chemical reactions, whether controlled or uncontrolled, can be dangerous. They can be divided into three main categories:

- release of large amounts of heat (exothermic reactions);
- release of toxic, carcinogenic, harmful, corrosive and/or irritant substances;
- simultaneous release of heat and toxic, carcinogenic, harmful or other hazardous substances.



Not all hazards are the same...

New chemical agents (reagents) may present one or more hazards. These are characterized and classified in Safety Data Sheets (SDSs), using properties such as pH, flash point, toxicity and mutagenicity.

When these chemicals react, the **resulting mixture** (by-products or waste) may, depending on the conditions or quantities involved:

- no longer present a hazard (rare)
- present the same hazard(s)
- present weaker or more severe hazards
- present new hazards

Chemistry is not something to improvise...

The table below shows incompatibilities between different types of chemical agents based on their hazard pictograms.

		X	X	X	X	X	X	+	X
	X		+	X	X	X	X	X	X
	X	+		X	+	X	X	X	X
	X	X	X		+	X	X	+	X
	X	X	+	X		X	X	X	X
	X	X	X	X	A/B		+	+	+
	X	X	X	X	+			+	+
	+	X	X	+	+	+	+		+
	X	X	X	X	+	+	+	+	



Must not be stored together



May be stored together under certain conditions



Acids (pH < 4) and bases (pH > 10) must not be stored together



May be stored together

- If a product displays several hazard pictograms, follow the order shown in the table (left to right or top to bottom).

- Spill-containment trays are recommended when storing liquid chemicals, particularly oxidizers, flammable substances and corrosive substances.



Although these principles are sufficient to apply basic rules for storing chemical agents, they are not precise enough for laboratory use.

They do not indicate the types of reactions generated by incompatibilities.

Two examples below the table illustrate how it works.

Exact source cell mosaics retained • UNamur hazardous waste guide, p. 44 (2026)



Collection and disposal

To reduce the time hazardous waste is stored in laboratories, the SerP has established a collection system. The SerP hazardous waste manager regularly visits the various buildings with a trolley to collect hazardous waste. A collection frequency and/or preferred day can be agreed with the SerP.

The hazardous waste manager can also collect your waste on request at déchets-dangereux@unamur.be. Contact the service if large quantities of waste are produced. Empty containers can also be ordered using this email address.



General rules

For the system to operate correctly, every chemical waste producer must comply with several conditions:

- 1) Store waste at a fixed location agreed with the SerP.¹⁷
- 2) Equip the waste area with spill-containment trays previously supplied by the SerP and now available from the university stores (economat@unamur.be).
- 3) It is advisable to place suitable absorbent cloths, available from the university stores, at the bottom of containment trays to capture drips. Replace these cloths as needed. Preferably retain the grating in the containment trays to avoid reducing their capacity.



- 4) Place all liquid waste jerrycans on containment trays while observing incompatibility rules; *for example, do not place acids and bases on the same tray.*
- 5) Securely close every container placed in the collection area.
- 6) Correctly identify waste using the appropriate, fully completed label.
- 7) Do not stack jerrycans.



Will not be collected:

- Containers without a cap
- Containers without a label
- Containers with an incomplete label
- Waste placed in inappropriate containers

Hazardous waste collected at UNamur is subsequently stored in dedicated rooms located in the Medicine and Science courtyards.

The SerP hazardous waste manager places hazardous waste jerrycans on separate containment trays according to their hazard category.

Other waste is also grouped according to its hazardous properties.

¹⁷Contact the SerP to designate a chemical waste storage area and equip it with containment trays.

Approximately once a month, an authorised hazardous waste collector takes charge of our waste. The collector sorts and groups it and selects the most appropriate disposal route for each waste type: recycling, recovery or incineration.



After reading this guide, you may still have some unanswered questions.

If you have any doubts, questions, comments, or suggestions, please do not hesitate to contact us:

- dechets-dangereux@unamur.be
- isabelle.rase@unamur.be

i.r. Isabelle Rase

*Prevention Adviser (CP1) and ADR Dangerous Goods Safety Adviser
Prevention Service (SerP) UNamur*

081/72.44.67 - 0475/69.16.34

isabelle.rase@unamur.be

dechets-dangereux@unamur.be

Instructions for preparing a liquid chemical waste jerrican

Labels

- **Print** the labels on self-adhesive sheets (see appendices) or order **labels from the SerP**: dechets-dangereux@unamur.be.
- Identify the waste collection jerrican with a label as **soon as it is put into use**.
- Affix the self-adhesive label to one side **of the** jerrican, never on the cap side where drips may occur. Apply the entire label firmly so that it does not peel off.
- **Complete** the blank fields; pH is optional.
- **Tick the** substances present in the waste; add further details if necessary.

Example:

Substances constitutives du déchet		
<u>hydrocarbures</u>	<u>solvants oxygénés</u>	<u>autres solvants</u>
☐ cyclohexane	☒ alcools (méthanol, éthanol, propanol, butanol...)	☐ acétonitrile
☐ pentane, hexane, heptane...	☐ cétones (acétone, butanone...)	☐ éthers de glycol (éthylène glycol...)
☐ pyridine	☐ esters (acétate d'éthyle...)	☐ propanal (aldéhyde propionique)
☐ xylène, styrène	☐ éthers (MTBE, ETBE, tétrahydrofurane...)	
☐ autres : <u>Matières organiques, hydroxyde de potassium < 2%</u>		

**Jerricans**

- Do not reuse jerricans, except where permitted for edible or mineral oils and greases.
- **1** waste type = **1 jerrican**;
- Do not fill jerricans beyond 90% of their capacity.
- Do not store waste unnecessarily: two 10-litre jerricans are better than one 20-litre jerrican.

**Caps**

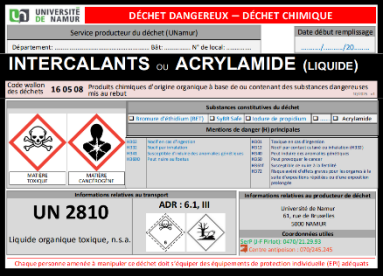
- Standard caps with tamper-evident safety rings for all chemical waste (final closure: tighten until it clicks)
- Consider using safety funnels if a jerrican must be opened and closed frequently.



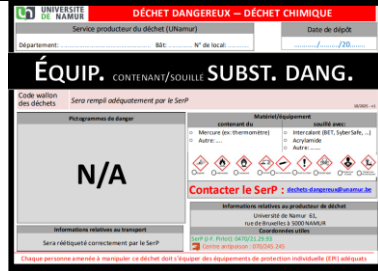
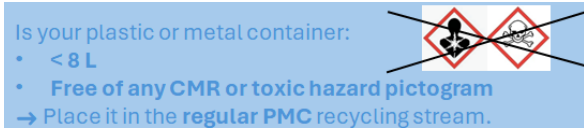
waste	EXPLOSIVE OR EXPLOSIVE PRECURSOR	PRODUCT IN ITS ORIGINAL CONTAINER	UNKNOWN CHEMICAL WASTE	SOLID RESIDUES (SALT, TECHNOLOGICAL MATERIAL)
packaging	1 or 5 litre jerrican 	Grey bin with vermiculite 	Grey bin with vermiculite 	Suitable resistant container
closure	standard cap 	closed lid 	closed lid 	
label	 Tick the chemical agent(s) present and add further details if necessary.	 Tick the hazard category or categories and add the name(s) if known.	 Tick the chemical agent(s) present and add further details if necessary.	 Tick the chemical agent(s) present and add further details if necessary.
Instructions	liquid	solid, liquid	liquid, solid	solid
	<p>Possession of explosives requires authorisation. UNamur's operating permit does not allow it.</p> <p>Do not mix! One substance per jerrican.</p> <p>Contact the SerP.</p>	<ul style="list-style-type: none"> Separate by hazard category wherever possible. Use separate grey bins for explosives, oxidisers, gases and aerosols. Place acids and bases in separate bins. <p>Do not transfer to another container.</p> <p>Do not stack bottles; store them upright.</p> <p>Contact the SerP: dechets-dangereux@unamur.be.</p>	<p>Do not open!</p> <p>Do not inhale!</p> <p>Do not transfer to another container.</p> <p>Contact the SerP.</p>	
Examples	Picric acid, nitric acid, ammonium nitrate, hydrogen peroxide, potassium nitrate, ammonium perchlorate, potassium chlorate, etc.	Original bottles and jerricans with their original closures. Expired reagents: the expiry date applies to both the chemical agent AND its container. Damaged containers: cracks, rust, brittle plastic, etc. Containers whose caps no longer provide an adequate seal.	Any waste without appropriate labelling or sufficient information identifying its contents. ➔ Automatically treated as unknown waste.	Salt precipitates, silica. Technological materials: filter cartridges, molecular sieves, filtration materials, photographic film, cool packs, etc.

waste	SOLVENTS NON-HALOGENATED	SOLVENTS HALOGENATED	SPECIAL CHEMICAL WASTE
packaging	10 or 20 litre jerrican 	10 litre or 20 litre jerrican 	5 or 10 litre jerrican 
closure	standard cap 	standard cap 	standard cap 
label	 Tick the chemical agent(s) present and add further details if necessary.	 Tick the chemical agent(s) present and add further details if necessary.	 Tick the chemical agent(s) present and add further details if necessary.
instructions	liquid 5 < pH < 9 non-halogenated solvent + halogenated solvent → <i>chlorine < 2%; bromine, fluorine and iodine < 0.5%</i>	liquid 5 < pH < 9 halogenated solvent + non-halogenated → <i>chlorine ≥ 2%; do not mix with other halogens → separate jerrican</i> <i>bromine, fluorine and iodine ≥ 0.5%</i>	liquid Liquid waste containing at least one substance listed in the examples, and all liquid waste that cannot be assigned to another chemical waste category.
examples	<i>Hydrocarbons: pentane, cyclohexane, hexane, heptane, octane, pentane, pyridine, styrene, xylene, etc.</i> <i>Oxygenated solvents: alcohols (butanol, ethanol, methanol, propanol); ketones (acetone, butanone); esters (ethyl acetate, methyl acetate, methyl butanoate, methyl formate); ethers (methyl tert-butyl ether, ethyl tert-butyl ether, tetrahydrofuran, glycol ethers).</i> <i>Others: acetonitrile, ethylene glycol, propanal, formamide.</i>	<i>2-Chlorobutane, 2-bromopropane, bromoethane, 1-chlorobutane, fluorobenzene, 2-bromobutane, 2-iodobutane, chlorobenzene, 1-iodobutane, bromobenzene, iodobenzene, 1,4-dibromobutane, trichloromethane (chloroform), dichloromethane, tetrachloroethylene, tetrachloromethane, 1,1,2-trichloroethene, 1,1,1-Trichloroethane, trichlorofluoromethane, 1,1,2-Trifluoro-1,2,2-trichloroethane</i>	<i>Hydrocyanic acid and derivatives, methyl methacrylate, 3,3'-diaminobenzidine (DAB).</i> <i>Solutions containing heavy metals: antimony, arsenic, cadmium, chromium, copper, TIN, mercury, nickel, lead, selenium, tellurium, thallium.</i> <i>Solutions containing CMR substances: acrylonitrile, aniline, benzene and derivatives, ethanal, methanal, N,N-dimethylformamide, nitrobenzene, pentane-1,5-dial, phenol, toluene.</i>

waste				
	INORGANIC ACIDS	ACIDS ORGANIC	BASES INORGANIC	BASES ORGANIC
packaging	10 or 20 litre jerrican 	10 or 20 litre jerrican 	10 or 20 litre jerrican 	10 or 20 litre jerrican 
closure	standard cap 	standard cap 	standard cap 	standard cap 
label	 Tick the chemical agent(s) present and add further details if necessary.	 Tick the chemical agent(s) present and add further details if necessary.	 Tick the chemical agent(s) present and add further details if necessary.	 Tick the chemical agent(s) present and add further details if necessary.
instructions				
	liquid pH ≤ 5	liquid pH ≤ 5	liquid pH ≥ 9	liquid pH ≥ 9
examples	inorganic acid + organic acid → 	organic acid + inorganic acid → 	inorganic base + organic base → 	organic base + inorganic base → 
	Hydrobromic acid, hydrochloric acid, hydroiodic acid, iodic acid, hydrofluoric acid, nitric acid, perchloric acid, phosphoric acid, sulfuric acid.	Butanoic (butyric) acid, decanoic (capric) acid, ethanoic (acetic) acid, heptanoic (enanthic) acid, hexanoic (caproic) acid, methanoic (formic) acid, nonanoic (pelargonic) acid, octanoic (caprylic) acid, pentanoic (valeric) acid, propanoic (propionic) acid, thiolactic acid.	<u>Alkali hydroxides:</u> lithium hydroxide, sodium hydroxide, potassium hydroxide, caesium hydroxide. <u>Alkaline-earth hydroxides:</u> magnesium hydroxide, calcium hydroxide, barium hydroxide. <u>Other inorganic bases:</u> ammonia solution, sodium hypochlorite (bleach), sodium chlorite.	<u>Amines:</u> methylamine, diethylamine, triethylamine, trimethylamine, etc. <u>Other organic bases:</u> alkaloids, benzimidazole, histidine, imidazole, pyridine, developer/fixer.

waste	INTERCALATING AGENTS OR ACRYLAMIDE		EMBALMING SOLUTIONS	TOXIC LIQUID OR CMR
	LIQUID	SOLID		
packaging	5 or 10 litre jerrican 	Blue bag and clinical-waste bucket 	10 or 20 litre jerrican 	10 or 20 litre jerrican 
closure	standard cap 	bag sealed using swan-neck technique; airtight lid 	standard cap 	standard cap 
label	 Tick the chemical agent(s) present and add further details if necessary.	 Tick the chemical agent(s) present and add further details if necessary.	 Tick the chemical agent(s) present and add further details if necessary.	 Tick the chemical agent(s) present and add further details if necessary.
Instructions	liquid Choose alternatives to ethidium bromide with lower mutagenic effects wherever possible.  Must remain in the ethidium bromide work area.	solid, gel Do not place waste directly in the bucket: <ul style="list-style-type: none"> place a blue plastic bag in the bucket, ensuring that it covers the rim and handles; when full, fold the bag edges inward and close it using the swan-neck technique; seal the bucket tightly with its lid.  No liquid waste. I Must remain in the ethidium bromide work area.	liquid	liquid
Examples	Solutions containing: Ethidium bromide, SYBR Safe, GelRed, acrylamide, propidium iodide.	Gels, wiping cloths, laboratory equipment, work clothing and personal protective equipment contaminated with ethidium bromide, SYBR Safe, GelRed, acrylamide, propidium iodide, etc.	Formalin-based embalming solutions or salt-based embalming solutions.	Aqueous liquid waste containing at least one CMR or toxic substance and presenting no flammability or corrosivity hazards: phenol, nitrobenzene, aniline, etc.

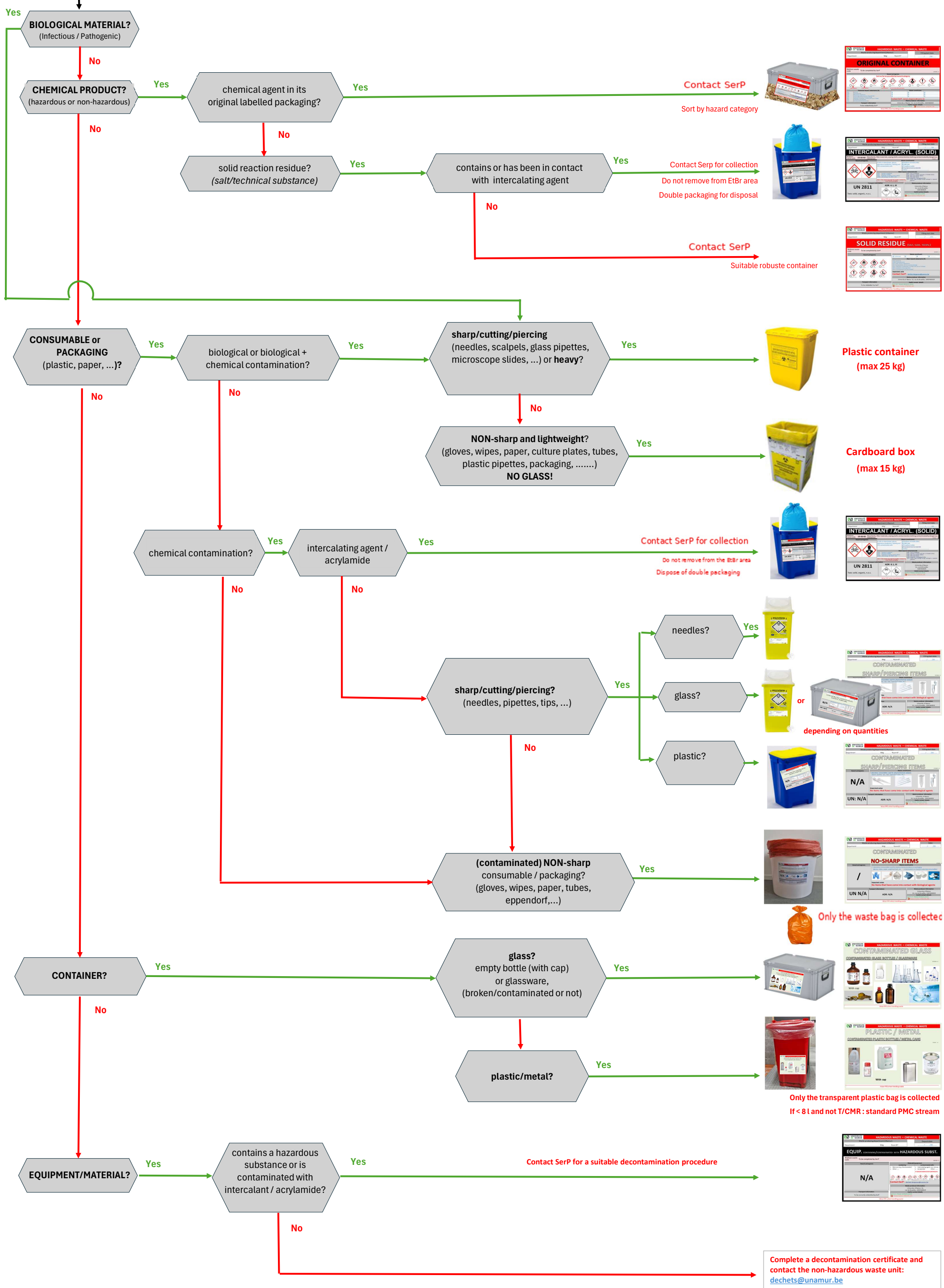
waste	WASTEWATER	MINERAL OILS AND GREASES	NON-HAZARDOUS CHEMICAL WASTE	
			LIQUID	SOLID
packaging	10 or 20 litre jerrican 	10 or 20 litre jerrican reused jerricans permitted 	10 or 20 litre jerrican 	Grey bin 
closure	standard cap 	airtight lid 	standard cap 	lid closed 
label	 Tick the chemical agent(s) present and add further details if necessary.	 Tick the chemical agent(s) present and add further details if necessary.	 List the chemical agent(s) present.	
Instructions	Liquid Liquid waste presenting only ecotoxic hazards or very low concentrations of toxic substances, and culture media decontaminated according to the laboratory's applicable procedure.	liquid, paste or solid Oils and greases with: • Cl, Br, I, F < 0.1% • water content < 5.0% • PCBs = 0.0% • chemical contaminants = 0.0% flash point > 55°C	liquid	solid
			 As a precaution, never discard a chemical product into a sink or general-waste bin, even if it has no hazard pictogram.	
Examples	Culture media treated with bleach, Incidin, Virkon, ethanol, Umonium 38 or other biocides.	Mineral or equivalent synthetic oils and greases.		

	GLASS CONTAINER	CONTAINER MADE OF PLASTIC OR METAL	EQUIP. CONTAINING/CONTAMINATED WITH A HAZARDOUS SUBSTANCE
packaging	grey bin 	red bin with transparent plastic liner 	
closure	lid 	Transparent plastic bag closed with a knot or tie for removal.	
label			 Tick the chemical agent(s) present and add details if necessary.
instructions	solid Glass bottles that contained chemical agents: • <i>empty but not rinsed</i> ; • <i>properly closed with their original caps</i> . Obsolete or damaged laboratory glassware: • <i>emptied of its contents</i> ; • <i>not rinsed</i> ; • <i>glass fragments</i> → use SharpSafe. Do not intentionally break glass inside the container. No Pasteur pipettes or capillary tubes.	solid Plastic or metal jerricans that contained chemical agents: • <i>empty but not rinsed</i> ; • <i>properly closed with their original caps</i> . 	solid A decontamination clearance form is required for all equipment removed from a laboratory via the non-hazardous waste stream, following the internal procedure using bleach, Incidin, ethanol or another suitable agent. If contamination involves ethidium bromide or another intercalating agent, contact the SerP to arrange a specific decontamination procedure. Always indicate whether your equipment contains a hazardous substance. Contact the SerP.
examples	Brown or clear glass bottles that contained chemical agents; unused laboratory glassware such as beakers, graduated tubes and flasks, whether contaminated or not.	Plastic or metal bottles and jerricans that contained chemical agents.	Thermometers, barometers, pressure gauges, porosimeters, etc. Laboratory equipment, such as balances, contaminated with ethidium bromide or another intercalating agent.

waste	CONSUMABLES/PACKAGING BIOLOGICALLY CONTAMINATED		B1 STREAM CONSUMABLES/PACKAGING		EQUIPMENT SHARP / CUTTING / PIERCING	
	 clinical waste container plastic UN 3291 (max. 25 kg)		 Orange waste bag (B1 stream)		 Clinical-waste bucket with green stripes	
closure	lid sealed airtight		only the closed orange waste bag will be removed.		two-position flap: - temporary closure; - permanent <u>closure</u> , fully clipped shut.	
label	No additional label. Using a marker, indicate: <ul style="list-style-type: none"> the waste producer: building, room and department; the date on which filling began. 				No additional label. Using a marker, indicate: <ul style="list-style-type: none"> the waste producer: building, room and department; the date on which filling began. 	
instructions	solid		solid		solid	
	Lightweight biologically contaminated NON-sharp/non-piercing packaging and consumables. <ul style="list-style-type: none"> max. 25 kg max. 15 kg <p>Select according to weight and sharp/piercing characteristics. No glass or needles in cardboard clinical waste containers.</p>		Laboratory packaging or consumables contaminated only with chemicals, or uncontaminated. NON-sharp materials		Waste presenting puncture or cutting hazards.	
examples	CARDBOARD clinical waste container: biologically contaminated gloves, cloths, paper, tips, rounded tubes, packaging, etc. PLASTIC clinical waste container: glass pipettes, microscope slides, scalpels, etc.		Gloves, cloths, paper, tips, rounded tubes and packaging contaminated only with chemicals (or (or uncontaminated but originating from a laboratory → B1)		Pasteur pipettes, micropipettes, microscope slides and coverslips, scalpel blades, surgical knives, needles, syringes, broken glass, etc.	

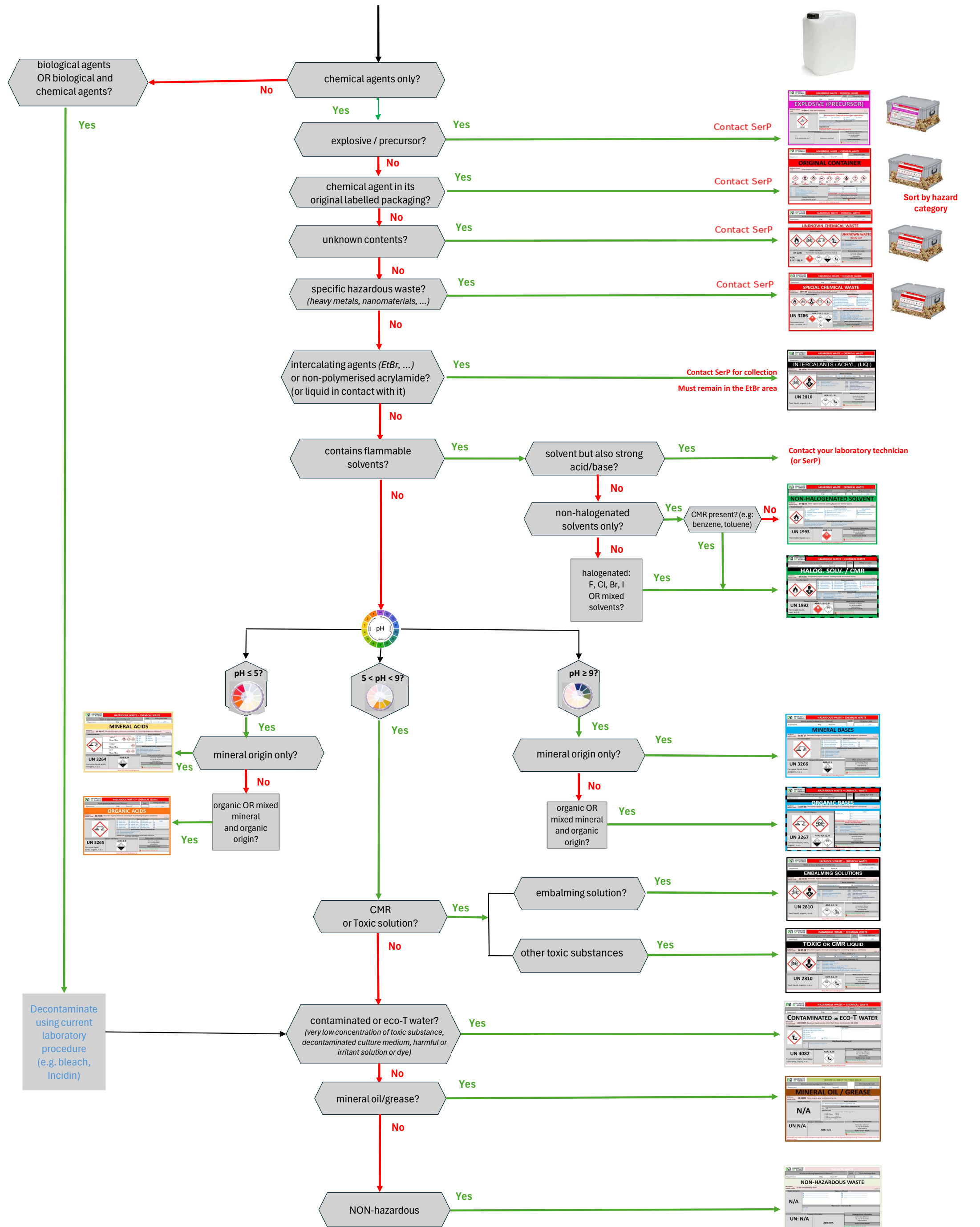
LABORATORY WASTE - SOLID

DECISION TREE - SOLID



LABORATORY WASTE - LIQUID

DECISION TREE - LIQUID



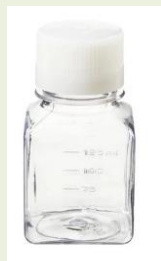
CONTAMINATED GLASS

EMPTY GLASS BOTTLES / GLASSWARE CONTAMINATED WITH CHEMICAL

07/2025 - v1



With cap



Wear PPE when handling waste

CONTAMINATED GLASS

EMPTY GLASS BOTTLES / GLASSWARE CONTAMINATED WITH CHEMICAL

07/2025 - v1



With cap



Wear PPE when handling waste

Waste-producing department (UNamur)

Department: Bldg: Room N°:

Date:

...../...../20.....

CONTAMINATED

NO-SHARP ITEMS

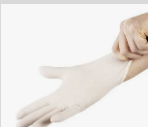
07/2025 - v1

Hazard pictograms



Waste constituents

- Laboratory consumables used for physicochemical analyses or packaging (gloves, wipes, paper, weighing boats, etc. — contaminated no-sharp/no-piercing consumables)



Important notes

No items that have come into contact with biological agents

Transport information

UN N/A

ADR: N/A

Waste producer information

University of Namur
61, rue de Bruxelles, 5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93

 Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

Department: Bldg: Room N°:

Date:

...../...../20.....

CONTAMINATED

NO-SHARP ITEMS

07/2025 - v1

Hazard pictograms



Waste constituents

- Laboratory consumables used for physicochemical analyses or packaging (gloves, wipes, paper, etc. — contaminated no-sharp/no-piercing consumables)



Important notes

No items that have come into contact with biological agents

Transport information

UN N/A

ADR: N/A

Waste producer information

University of Namur
61, rue de Bruxelles, 5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93

 Poison Centre: 070/245.245

Wear PPE when handling waste

PLASTIC / METAL

EMPTY PLASTIC BOTTLE / METAL POTS CONTAMINATED WITH CHEMICAL

07/2025 - v1



With cap

Wear PPE when handling waste

PLASTIC / METAL

07/2025 - v1

EMPTY PLASTIC BOTTLE / METAL POTS CONTAMINATED WITH CHEMICAL



With cap

Wear PPE when handling waste

Waste-producing department (UNamur)

Department: Bldg: Room N°:

Filling start date

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CONTAMINATED
SHARP/PIERCING ITEMS

07/2025 - v1

Hazard pictograms

N/A

Waste constituents

- Laboratory consumables used for physicochemical analyses (plastic pipettes, tips, vials, Eppendorf tubes, etc.)



Important notes

No items that have come into contact with biological agents

Transport information

UN: N/A

ADR: N/A

Waste producer information

University of Namur
61, rue de Bruxelles, 5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93

 Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

Department: Bldg: Room N°.:

Filling start date

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CONTAMINATED
SHARP/PIERCING ITEMS

07/2025 - v1

Hazard pictograms

N/A

Waste constituents

- Laboratory consumables used for physicochemical analyses (plastic pipettes, tips, vials, Eppendorf tubes, etc.)



Important notes

No items that have come into contact with biological agents

Transport information

UN: N/A

ADR: N/A

Waste producer information

University of Namur
61, rue de Bruxelles, 5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93

 Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

Filling start date

Department: Bldg: Room N°:

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EMBALMING SOLUTIONS

Walloon waste code **16 05 08** Discarded organic chemicals consisting of or containing dangerous substances

07/2025 - v1

Hazard pictograms



Waste constituents

☐ Salt-based embalming solution☐ Formaldehyde solution (2–7%)

Main hazard statements (H)

H302	Harmful if swallowed	H301	Toxic if swallowed
H332	Harmful if inhaled	H312	Harmful in contact with skin or if inhaled (H332)
H341	<u>Suspected of causing genetic defects</u>	H340	<u>May cause genetic defects</u>
H350	May cause cancer	H350	May cause cancer
H360D	May damage the unborn child	H361f	Suspected of damaging fertility
		H372	Causes organ damage through prolonged or repeated exposure

Transport information

UN 2810**ADR: 6.1, III**

Toxic liquid, organic, n.o.s.

Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F Pirlot): 0470/21.29.93

Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

Filling start date:

Department:Bldg: Room N°:

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EMBALMING SOLUTIONS

Walloon waste code **16 05 08** Discarded organic chemicals consisting of or containing dangerous substances

07/2025 - v1

Hazard pictograms



Waste constituents

☐ Salt-based embalming solution☐ Formaldehyde solution (2–7%)

Main hazard statements (H)

H302	Harmful if swallowed	H301	Toxic if swallowed
H332	Harmful if inhaled	H312	Harmful in contact with skin or if inhaled (H332)
H341	<u>Suspected of causing genetic defects</u>	H340	<u>May cause genetic defects</u>
H350	May cause cancer	H350	May cause cancer
H360D	May damage the unborn child	H361f	Suspected of damaging fertility
		H372	Causes organ damage through prolonged or repeated exposure

Transport information

UN 2810**ADR: 6.1, III**

Toxic liquid, organic, n.s.o.

Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F Pirlot): 0470/21.29.93

Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

Filling start date

Department: Bldg: Room N°:

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INTERCALANTS / ACRYL. (LIQ.)

Walloon waste code **16 05 08** Discarded organic chemicals consisting of or containing dangerous substances

10/2025 - v1

	Waste constituents			
	☐ Ethidium bromide (EtBr)	☐ SYBR Safe	☐ Propidium iodide	☐ ☐ Acrylamide
	Main hazard statements (H)			
	H302 H332 H341 H360D	Harmful if swallowed Harmful if inhaled Suspected of causing genetic defects May damage the unborn child	H301 H312 H340 H350 H361f H372	Toxic if swallowed Harmful in contact with skin or if inhaled (H332) May cause genetic defects May cause cancer Suspected of damaging fertility Causes organ damage through prolonged or repeated exposure
Transport information		Waste producer information		
UN 2810		University of Namur 61, rue de Bruxelles 5000 NAMUR		
Toxic liquid, organic, n.o.s.		Useful contact details SerP (J-F Pirlot): 0470/21.29.93 Poison Centre: 070/245.245		

Wear PPE when handling waste

Waste-producing department (UNamur)

Filling start date:

Department: Bldg: Room N°:

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INTERCALANTS / ACRYL. (LIQ.)

Walloon waste code **16 05 08** Discarded organic chemicals consisting of or containing dangerous substances

10/2025 - v1

	Waste constituents			
	☐ Ethidium bromide (EtBr)	☐ SYBR Safe	☐ Propidium iodide	☐ ☐ Acrylamide
	Main hazard statements (H)			
	H302 H332 H341 H360D	Harmful if swallowed Harmful if inhaled Suspected of causing genetic defects May damage the unborn child	H301 H312 H340 H350 H361f H372	Toxic if swallowed Harmful in contact with skin or if inhaled (H332) May cause genetic defects May cause cancer Suspected of damaging fertility Causes organ damage through prolonged or repeated exposure
Transport information		Waste producer information		
UN 2810		University of Namur 61, rue de Bruxelles 5000 NAMUR		
Toxic liquid, organic, n.o.s.		Useful contact details SerP (J-F Pirlot): 0470/21.29.93 Poison Centre: 070/245.245		

Wear PPE when handling waste

Waste-producing department (UNamur)

(pH)

Filling start date

Department: Bldg: Room N°:

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HALOGENATED SOLVENT/CMR

Walloon waste code **07 01 03** Halogenated organic solvents, washing liquids and mother liquors

07/2025 - v1

Hazard pictograms



Waste constituents

- | | | | |
|--|--|---|--|
| ☐ 2-Chlorobutane | ☐ 2-Bromobutane | ☐ Dichloroethane | ☐ 1,1,2-Trichloroethene |
| ☐ 2-Bromopropane | ☐ 2-Iodobutane | ☐ Dichloromethane | ☐ 1,1,1-Trichloroethane |
| ☐ Bromoethane | ☐ Chlorobenzene | ☐ Trichloromethane | ☐ Trichlorofluoromethane |
| ☐ 1-Chlorobutane | ☐ 1-Iodobutane | ☐ Tetrachloroethane | ☐ + Benzene, toluene |
| ☐ Fluorobenzene | ☐ Bromobenzene | ☐ Tetrachloromethane | ☐ |
| ☐ Tetrachloroethylene | | | |

Main hazard statements (H)

- | | | | |
|---|--|--------------------------|--|
| H225/226
H331/332
H350/351
H360F
H341 | (Highly) flammable liquid and vapour
Toxic/harmful if inhaled
May cause/is suspected of causing cancer
May damage fertility
Suspected of causing genetic defects | H372/373
H301/311/331 | Causes/may cause organ damage through prolonged or repeated exposure
Toxic if swallowed, in contact with skin or if inhaled |
|---|--|--------------------------|--|

Transport information

UN 1992Flammable liquid,
toxic, n.o.s.**ADR: 3, (6.1), II**

Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93
Poison Centre: 070/245 245

Wear PPE when handling waste

Waste-producing department (UNamur)

(pH)

Filling start date

Department: Bldg: Room N°:

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HALOGENATED SOLVENT/CMR

Walloon waste code **07 01 03** Halogenated organic solvents, washing liquids and mother liquors

07/2025 - v1

Hazard pictograms



Waste constituents

- | | | | |
|--|--|---|--|
| ☐ 2-Chlorobutane | ☐ 2-Bromobutane | ☐ Dichloroethane | ☐ 1,1,2-Trichloroethene |
| ☐ 2-Bromopropane | ☐ 2-Iodobutane | ☐ Dichloromethane | ☐ 1,1,1-Trichloroethane |
| ☐ Bromoethane | ☐ Chlorobenzene | ☐ Trichloromethane | ☐ Trichlorofluoromethane |
| ☐ 1-Chlorobutane | ☐ 1-Iodobutane | ☐ Tetrachloroethane | ☐ + Benzene, toluene |
| ☐ Fluorobenzene | ☐ Bromobenzene | ☐ Tetrachloromethane | ☐ |
| ☐ Tetrachloroethylene | | | |

Main hazard statements (H)

- | | | | |
|---|--|--------------------------|--|
| H225/226
H331/332
H350/351
H360F
H341 | (Highly) flammable liquid and vapour
Toxic/harmful if inhaled
May cause/is suspected of causing cancer
May damage fertility
Suspected of causing genetic defects | H372/373
H301/311/331 | Causes/may cause organ damage through prolonged or repeated exposure
Toxic if swallowed, in contact with skin or if inhaled |
|---|--|--------------------------|--|

Transport information

UN 1992Flammable liquid,
toxic, n.o.s.**ADR: 6.1, II**

Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93
Poison Centre: 070/245 245

Wear PPE when handling waste

Waste-producing department (UNamur)

(pH)

Filling start date

Department: Bldg: Room N°:

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EXPLOSIVE (PRECURSOR)

Walloon waste
code**16 04 03**

Other waste explosives

07/2025 - v1

Hazard pictograms

EXPLOSIVE
SUBSTANCE

Waste constituent

Do not mix! One substance per container☐ Picric acid☐ Peroxides☐ HNO₃☐ Other:☐ Nitro derivatives

Main hazard statements (H)

H203 Explosive; fire, blast or projection hazard

H204 Fire or projection hazard

H205 May mass explode in fire

Important note**Contact SerP : dechets-dangereux@unamur.be**

Transport information

*To be relabelled by SerP**Explosive or oxidising*

Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93

 Poison Centre: 070/245.245

Waste-producing department (UNamur)

(pH)

Filling start date

Department: Bldg: Room N°:

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EXPLOSIVE (PRECURSOR)

Walloon waste
code**16 04 03**

Other waste explosives

07/2025 - v1

EXPLOSIVE
SUBSTANCE

Waste constituent

Do not mix! One substance per container☐ Picric acid☐ Peroxides☐ HNO₃☐ Other:☐ Nitro derivatives

Main hazard statements (H)

H203 Explosive; fire, blast or projection hazard

H204 Fire or projection hazard

H205 May mass explode in fire

Important note**Contact SerP : dechets-dangereux@unamur.be**

Transport information

*To be relabelled by SerP**Explosive or oxidising*

Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93

 Poison Centre: 070/245.245

Waste-producing department (UNamur)

Deposit date

Department: Bldg: Room N°:

...../...../20.....

EQUIP. CONTAINING/CONTAMINATED WITH HAZARDOUS SUBST.

Walloon waste
code

To be completed by SerP

08/2026 – v2

Hazard pictograms

N/A

Transport information

To be correctly relabelled by SerP

Material/equipment

containing

- ☐ Mercury (e.g. thermometer)
- ☐ Other:

contaminated with:

- ☐ Intercalating agent (EtBr, SYBR Safe, ...)
- ☐ Acrylamide Other:

→ DECONTAMINATION CERTIFICATE



Explosif



Inflammable



Combustible



Corrosif



Dang sous pressio



Nocif ou irritant



Toxicité aiguë



Dang pour la santé



Dang pour l'environnement

Contact SerP : dechets-dangereux@unamur.be

Waste producer information

University of Namur 61,
rue de Bruxelles, 5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93
Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

Deposit date

Department: Bldg: Room N°:

...../...../20.....

EQUIP. CONTAINING/CONTAMINATED WITH HAZARDOUS SUBST.

Walloon waste
code

To be completed by SerP

08/2026 – v2

Hazard pictograms

N/A

Transport information

To be correctly relabelled by SerP

Material/equipment

containing

- ☐ Mercury (e.g. thermometer)
- ☐ Other:

contaminated with:

- ☐ Intercalating agent (EtBr, SYBR Safe, ...)
- ☐ Acrylamide Other:

→ DECONTAMINATION CERTIFICATE



Explosif



Inflammable



Combustible



Corrosif



Dang sous pressio



Nocif ou irritant



Toxicité aiguë



Dang pour la santé



Dang pour l'environnement

Contact SerP : dechets-dangereux@unamur.be

Waste producer information

University of Namur 61,
rue de Bruxelles, 5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93
Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

Filling start date

Department: Bldg: Room N°:

...../...../20.....

INTERCALANT / ACRYL. (SOLID)

Walloon waste code **15 02 02** Absorbents, filter materials, wiping cloths and protective clothing contaminated by dangerous substances

10/2025 - v1

Hazard pictograms



■ Gels or wipes/paper, gloves, laboratory equipment, clothing and PPE contaminated with:

Waste constituents

- ☐ Ethidium bromide (EtBr)
☐ SYBR Safe
☐ Propidium iodide
☐ Unpolymerised acrylamide
☐ Other:

Main hazard statements (H)

H302 Harmful if swallowed
H332 Harmful if inhaled
H341 Suspected of causing genetic defects
H360D May damage the unborn child

H301 Toxic if swallowed
H312 Harmful in contact with skin or if inhaled (H332)
H340 May cause genetic defects
H350 May cause cancer
H361f Suspected of damaging fertility
H372 Causes organ damage through prolonged or repeated exposure

Place a blue plastic bag inside the Septifas container to create double packaging

Transport information

UN 2811

Toxic solid, organic, n.o.s.

ADR: 6.1, III

Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F Pirlot): 0470/21.29.93

Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

Filling start date:

Department: Bldg: Room N°:

...../...../20.....

INTERCALANT / ACRYL. (SOLID)

Walloon waste code **15 02 02** Absorbents, filter materials, wiping cloths and protective clothing contaminated by dangerous substances

10/2025 - v1

Hazard pictograms



■ Gels or wipes/paper, gloves, laboratory equipment, clothing and PPE contaminated with:

Waste constituents

- ☐ Ethidium bromide (EtBr)
☐ SYBR Safe
☐ Propidium iodide
☐ Unpolymerised acrylamide
☐ Other:

Main hazard statements (H)

H302 Harmful if swallowed
H332 Harmful if inhaled
H341 Suspected of causing genetic defects
H360D May damage the unborn child

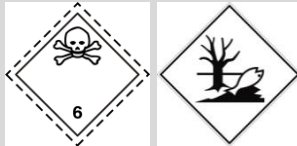
H301 Toxic if swallowed
H312 Harmful in contact with skin or if inhaled (H332)
H340 May cause genetic defects
H350 May cause cancer
H361f Suspected of damaging fertility
H372 Causes organ damage through prolonged or repeated exposure

Place a blue plastic bag inside the Septifas container to create double packaging

Transport information

UN 2811

Toxic solid, organic, n.o.s.

ADR: 6.1, III

Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F Pirlot): 0470/21.29.93

Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-generating department (UNamur)

Department:

Bldg:

Room n°:

Date

...../...../20.....

MEDICINES

Walloon waste
code

20 02 32

Medicines other than those mentioned in 20 01 31

Hazard pictograms

N/A

Waste constituents

- ☐ Unpackaged capsules, suppositories, etc.
☐ Tubes of cream



Main hazard statements (H)

/ /

Important notes

Medicine only - No packaging/blister packs, paper towels or gloves.

Transport information

UN: N/A

ADR : N/A

Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contacts

SerP (J-F. Pirlot): 0470/21.29.93

 Poison Centre: 070/245.245

Waste-generating department (UNamur)

Department:

Bldg:

Room n°:

Date

...../...../20.....

MEDICINES

Walloon waste
code

20 02 32

Medicines other than those mentioned in 20 01 31

Hazard pictograms

N/A

Waste constituents

- ☐ Unpackaged capsules, suppositories, etc.
☐ Tubes of cream



Main hazard statements (H)

/ /

Important notes

Medicine only - No packaging/blister packs, paper towels or gloves.

Transport information

UN: N/A

ADR : N/A

Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contacts

SerP (J-F. Pirlot): 0470/21.29.93

 Poison Centre: 070/245.245

Waste-producing department (UNamur)

(pH)

Filling start date

Department: Bldg: Room N°:

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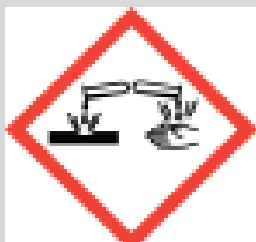
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MINERAL ACIDS

Walloon waste code **16 05 07** Discarded inorganic chemicals consisting of or containing dangerous substances

07/2025 - v1

Hazard pictograms



Do not mix these acids. One acid per container

HNO₃ ?☐ yes ☐ noH₂SO₄ ?☐ yes ☐ no

HF ?

☐ yes ☐ no

Waste constituents

☐ HBr☐ HIO₃☐ [other](#)☐ HCl☐ HClO₄☐☐ HI☐ HMnO₄☐☐ H₃PO₄☐

Main/potential hazard statements (H)

H314 Causes severe skin burns and eye damage

H290 May be corrosive to metals

H271 May cause fire or explosion; strong oxidiser

H310 Fatal in contact with skin

H330 Fatal if inhaled

Transport information

UN 3264

Corrosive liquid, acidic,
inorganic, n.o.s.

ADR: 8, III



Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93

Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

(pH)

Filling start date

Department: Bldg: Room N°:

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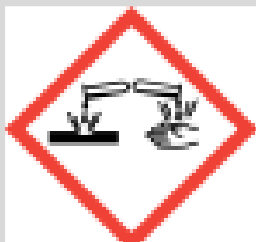
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MINERAL ACIDS

Walloon waste code **16 05 07** Discarded inorganic chemicals consisting of or containing dangerous substances

07/2025 - v1

Hazard pictograms



Do not mix these acids. One acid per container

HNO₃ ?☐ yes ☐ noH₂SO₄ ?☐ yes ☐ no

HF ?

☐ yes ☐ no

Waste constituents

☐ HBr☐ HIO₃☐ [other](#)☐ HCl☐ HClO₄☐☐ HI☐ HMnO₄☐☐ H₃PO₄☐

Main/potential hazard statements (H)

H314 Causes severe skin burns and eye damage

H290 May be corrosive to metals

H271 May cause fire or explosion; strong oxidiser

H310 Fatal in contact with skin

H330 Fatal if inhaled

Transport information

UN 3264

Corrosive liquid, acidic,
inorganic, n.o.s.

ADR: 8, III



Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93

Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

(pH)

Filling start date

Department: Bldg: Room N°:

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MINERAL BASES

Walloon waste code **16 05 07** Discarded inorganic chemicals consisting of or containing dangerous substances

07/2025 - v1

Hazard pictograms



Waste constituents

- ☐ Sodium hydroxide
☐ Potassium hydroxide
☐ Calcium hydroxide
☐ Barium hydroxide

- ☐ Ammonia
☐ Sodium hypochlorite
☐ Sodium chlorite
☐ Caesium hydroxide

Other

- ☐
☐
☐

Main/potential hazard statements (H)

- H314 Causes severe skin burns and eye damage
H290 May be corrosive to metals
H272 May intensify fire; oxidiser
H310 Fatal in contact with skin
H330 Fatal if inhaled
H335 May cause respiratory irritation

Transport information

UN 3266Corrosive liquid, basic,
inorganic, n.o.s.**ADR: 8, II**

Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93

Poison Centre: 070/245 245

Wear PPE when handling waste

Waste-producing department (UNamur)

(pH)

Filling start date

Department: Bldg: Room N°:

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MINERAL BASES

Walloon waste code **16 05 07** Discarded inorganic chemicals consisting of or containing dangerous substances

07/2025 - v1

Hazard pictograms



Waste constituents

- ☐ Sodium hydroxide
☐ Potassium hydroxide
☐ Calcium hydroxide
☐ Barium hydroxide

- ☐ Ammonia
☐ Sodium hypochlorite
☐ Sodium chlorite
☐ Caesium hydroxide

Other

- ☐
☐
☐

Main/potential hazard statements (H)

- H314 Causes severe skin burns and eye damage
H290 May be corrosive to metals
H272 May intensify fire; oxidiser
H310 Fatal in contact with skin
H330 Fatal if inhaled
H335 May cause respiratory irritation

Transport information

UN 3266Corrosive liquid, basic,
inorganic, n.o.s.**ADR: 8, II**

Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93

Poison Centre: 070/245 245

Wear PPE when handling waste

Waste-producing department (UNamur)

(pH)

First discharge date

Department: Bldg: Room N°:

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...../...../20.....

NON-HAZARDOUS WASTE

Walloon
waste code To be completed by SerP

10/2025 - v1

Hazard pictogram

Waste constituents

N/A

☐
☐
☐☐
☐
☐

Main hazard statements (H)

N/A

N/A

Transport information

UN: N/A

ADR: N/A

Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93

 Poison Centre: 070/245.245

Waste-producing department (UNamur)

(pH)

Filling start date

Department: Bldg: Room N°:

.....

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NON-HAZARDOUS WASTE

Walloon
waste code To be completed by SerP

10/2025 - v1

Hazard pictogram

Waste constituents

N/A

☐
☐
☐☐
☐
☐

Main hazard statements (H)

N/A

N/A

Transport information

UN: N/A

ADR: N/A

Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93

 Poison Centre: 070/245.245

Waste-producing department (UNamur)

First discharge date

Department: Bldg: Room N°:

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MINERAL OIL / GREASE

Walloon
waste code

13 02 08 Other engine, gear and lubricating oils

07/2025 - v1

Hazard pictograms

N/A

Waste constituents

☐ Mineral or equivalent oil/grease (synthetic oil)

Main hazard statements (H)

N/A

N/A

Important note

These mineral oils and greases must meet the following criteria:

- Cl, Br, I, F < 0,1 %
- water content < 5,0 %
- PCBs = 0,0 %
- chemical contaminants = 0,0 %
- flash point > 55 °C

Transport information

UN N/A

ADR: N/A

Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F Pirlot): 0470/21.29.93

 Poison Centre: 070/245.245

Although not subject to ADR dangerous-goods transport rules, oils and greases are polluting. Prevent any release into the environment.

Waste-producing department (UNamur)

Filling start date

Department: Bldg: Room N°:

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MINERAL OIL / GREASE

Walloon
waste code

13 02 08 Other engine, gear and lubricating oils

Hazard pictograms

N/A

Waste constituents

☐ Mineral or equivalent oil/grease (synthetic oil)

Main hazard statements (H)

N/A

N/A

Important note

These mineral oils and greases must meet the following criteria:

- Cl, Br, I, F < 0,1 %
- water content < 5,0 %
- PCBs = 0,0 %
- chemical contaminants = 0,0 %
- flash point > 55 °C

Transport information

UN N/A

ADR: N/A

Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F Pirlot): 0470/21.29.93

 Poison Centre: 070/245.245

Although not subject to ADR dangerous-goods transport rules, oils and greases are polluting. Prevent any release into the environment.

Waste-producing department (UNamur)

(pH)

First discharge date

Department: Bldg: Room N°:

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...../...../20.....

CONTAMINATED OR ECO-T WATER

Walloon waste code **16 10 02** Aqueous liquid wastes other than those mentioned in 16 10 01

07/2025 - v1

Hazard pictogram



Waste constituents

Culture media treated with:

- ☐ Bleach (NaClO) (5–10% v/v)
☐ Incidin - P3
☐ Vircon
☐ Ethanol
☐ Ummonium 38

☐ Other:☐ Other:

Main hazard statements (H)

H4xx

(Very) toxic/harmful to aquatic life

Transport information

UN 3082Environmentally hazardous
substance, liquid, n.o.s.**ADR: 9, III**

Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93
Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

(pH)

Filling start date

Department: Bldg: Room N°:

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WASTEWATER

Walloon waste code **16 10 02** Aqueous liquid wastes other than those mentioned in 16 10 01

07/2025 - v1

Hazard pictogram



Waste constituents

Culture media treated with:

- ☐ Bleach (NaClO) (5–10% v/v)
☐ Incidin - P3
☐ Vircon
☐ Ethanol
☐ Ummonium 38

☐ Other:☐ Other:

Main hazard statements (H)

H4xx

(Very) toxic/harmful to aquatic life

Transport information

UN 3082Environmentally hazardous
substance, liquid, n.o.s.**ADR: 9, III**

Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93
Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

(pH)

Filling start date

Department: Bldg: Room N°:

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...../...../20.....

NON-HALOGENATED SOLVENT

Walloon waste code **07 01 04** Other organic solvents, washing liquids and mother liquors

07/2025 - v1

Hazard pictogram



Waste constituents

hydrocarbons

- ☐ cyclohexane
☐ pentane, hexane, heptane,...
☐ pyridine
☐ xylene, styrene

oxygenated solvents

- ☐ alcohols (methanol, ethanol, propanol, butanol,...)
☐ ketones (acetone, butanone,...)
☐ esters (ethyl acetate,...)
☐ ethers (MTBE, ETBE, tetrahydrofuran,...)

other solvents

- ☐ acetonitrile
☐ glycol ethers (ethylene glycol,...)
☐ propanal (propionaldehyde)

☐ other :

Main and potential hazard statements (H)

H224 Extremely flammable liquid and vapour
H225 Highly flammable liquid and vapour
H226 Flammable liquid and vapour

H304 May be fatal if swallowed and enters airways
H311 Toxic in contact with skin
H350 May cause cancer

Transport information

UN 1993

Flammable liquid, n.o.s.

ADR: 3, II



Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93
Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

(pH)

Filling start date

Department: Bldg: Room N°:

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...../...../20.....

NON-HALOGENATED SOLVENT

Walloon waste code **07 01 04** Other organic solvents, washing liquids and mother liquors

07/2025 - v1

Hazard pictogram



Waste constituents

hydrocarbons

- ☐ cyclohexane
☐ pentane, hexane, heptane,...
☐ pyridine
☐ xylene, styrene

oxygenated solvents

- ☐ alcohols (methanol, ethanol, propanol, butanol,...)
☐ ketones (acetone, butanone,...)
☐ esters (ethyl acetate,...)
☐ ethers (MTBE, ETBE, tetrahydrofuran,...)

other solvents

- ☐ acetonitrile
☐ glycol ethers (ethylene glycol,...)
☐ propanal (propionaldehyde)

☐ other :

Main and potential hazard statements (H)

H224 Extremely flammable liquid and vapour
H225 Highly flammable liquid and vapour
H226 Flammable liquid and vapour

H304 May be fatal if swallowed and enters airways
H311 Toxic in contact with skin
H350 May cause cancer

Transport information

UN 1993

Flammable liquid, n.o.s.

ADR: 3, II



Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93
Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

(pH)

Filling start date

Department: Bldg: Room N°:

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...../...../20.....

ORGANIC ACIDS

Walloon waste code 16 05 08 Discarded organic chemicals consisting of or containing dangerous substances

10/2025 - v1

Hazard pictograms



Waste constituents

- | | | | |
|---|--|--|---|
| ☐ formic acid | ☐ caproic acid | ☐ citric acid | ☐ <u>other</u>
.....
.....
.....
..... |
| ☐ acetic acid | ☐ enanthic acid | ☐ (thio)lactic acid | |
| ☐ propionic acid | ☐ caprylic acid | ☐ malic acid | |
| ☐ butyric acid | ☐ pelargonic acid | ☐ oxalic acid | |
| ☐ valeric acid | ☐ thiolactic acid | ☐ tartaric acid | |
| | | | |

Main/potential hazard statements (H)

- H314 Causes severe skin burns and eye damage
H226 Flammable liquid and vapour
H311 Toxic in contact with skin

Important note: even diluted or inherently non-corrosive organic acids must be placed in this waste category.

Transport information

UN 3265

Corrosive liquid,
acidic, organic, n.o.s.

ADR: 8, II



Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93
Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

(pH)

Filling start date

Department: Bldg: Room N°:

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...../...../20.....

ORGANIC ACIDS

Walloon waste code 16 05 08 Discarded organic chemicals consisting of or containing dangerous substances

10/2025 - v1

Hazard pictograms



Waste constituents

- | | | | |
|---|--|--|---|
| ☐ formic acid | ☐ caproic acid | ☐ citric acid | ☐ <u>other</u>
.....
.....
.....
..... |
| ☐ acetic acid | ☐ enanthic acid | ☐ (thio)lactic acid | |
| ☐ propionic acid | ☐ caprylic acid | ☐ malic acid | |
| ☐ butyric acid | ☐ pelargonic acid | ☐ oxalic acid | |
| ☐ valeric acid | ☐ thiolactic acid | ☐ tartaric acid | |
| | | | |

Main/potential hazard statements (H)

- H314 Causes severe skin burns and eye damage
H226 Flammable liquid and vapour
H311 Toxic in contact with skin

Important note: even diluted or inherently non-corrosive organic acids must be placed in this waste category.

Transport information

UN 3265

Corrosive liquid,
acidic, organic, n.o.s.

ADR: 8, II



Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93
Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

(pH)

Filling start date

Department: Bldg: Room N°:

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...../...../20.....

ORGANIC BASES

Walloon waste code **16 05 08** Discarded organic chemicals consisting of or containing dangerous substances

07/2025 - v1

Hazard pictograms

**UN 3267**Corrosive liquid, basic,
organic, n.o.s.

ADR: 8 (6.1), II

☐ Imidazoleother☐
☐
☐
☐**Important note: even diluted organic bases must be placed in this waste category.**

Main/potential hazard statements (H)

- H224 Extremely flammable liquid and vapour
H302 Harmful if swallowed
H314 Causes severe skin burns and eye damage
H332 Harmful if inhaled
H360 May damage the unborn child

Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93
Poison Centre: 070/245 .245

Wear PPE when handling waste

Waste-producing department (UNamur)

(pH)

Filling start date

Department: Bldg: Room N°:

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ORGANIC BASES

Walloon waste code **16 05 08** Discarded organic chemicals consisting of or containing dangerous substances

07/2025 - v1

Hazard pictograms

**UN 3267**Corrosive liquid, basic,
organic, n.o.s.

ADR: 8 (6.1), II



Waste constituents

☐ Imidazoleother☐
☐
☐
☐**Important note: even diluted organic bases must be placed in this waste category.**

Main/potential hazard statements (H)

- H224 Extremely flammable liquid and vapour
H302 Harmful if swallowed
H314 Causes severe skin burns and eye damage
H332 Harmful if inhaled
H360* May damage the unborn child

Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93
Poison Centre: 070/245 .245

Wear PPE when handling waste

Waste-producing department (UNamur)

Department: Bldg: Room N°:

Filling start date

...../...../20.....

ORIGINAL CONTAINER

Walloon waste
code

To be completed by SerP

10/2025 - v1

Hazard pictograms

Sort as far as possible by hazard category



Explosive

1 box distinct



Oxidizer

1 box distinct



Flammable



Gas

1 box distinct



Corrosive

Do not mix acids and bases



Toxic



CMR



Harmful or irritant



Ecotoxicity

Potential hazard statements (H)

H20x Explosive
H228 Flammable solid
H27x May cause or intensify fire
H28x Contains gas under pressure or refrigerated gas
H314 Causes severe skin burns and eye damage
H3xx Fatal/toxic if swallowed, in contact with skin or if inhaled
H351 Suspected of causing cancer
H4xx Toxic/harmful to the environment

Transport information

To be relabelled by SerP

Waste constituent

☐		☐		☐	
☐		☐		☐	
☐		☐		☐	

Contact SerP : dechets-dangereux@unamur.be

Waste producer information

University of Namur 61, rue de Bruxelles, 5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93 Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

Department: Bldg: Room N°:

Filling start date

...../...../20.....

ORIGINAL CONTAINER

Walloon waste
code

To be completed by SerP

10/2025 - v1

Sort as far as possible by hazard category



Explosive

1 box distinct



Oxidizer

1 box distinct



Flammable



Gas

1 box distinct



Corrosive

Do not mix acids and bases



Toxic



CMR



Harmful or irritant



Ecotoxicity

Potential hazard statements (H)

H20x Explosive
H228 Flammable solid
H27x May cause or intensify fire
H28x Contains gas under pressure or refrigerated gas
H314 Causes severe skin burns and eye damage
H3xx Fatal/toxic if swallowed, in contact with skin or if inhaled
H351 Suspected of causing cancer
H4xx Toxic/harmful to the environment

Transport information

To be relabelled by SerP

Waste constituent

☐		☐		☐	
☐		☐		☐	
☐		☐		☐	

Contact SerP : dechets-dangereux@unamur.be

Waste producer information

University of Namur 61, rue de Bruxelles, 5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93 Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

Filling start date

Department: Bldg: Room N°:

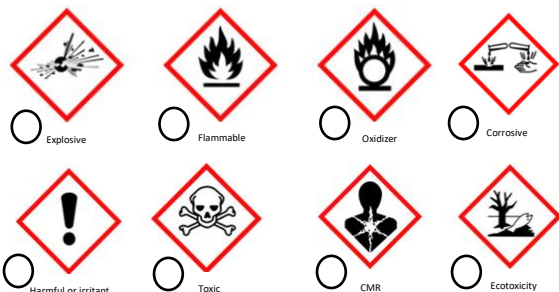
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SOLID RESIDUE (SALT, SUBS. TECHN.)

Walloon waste code

To be completed by SerP

10/2025 - v1

Hazard pictograms

Transport information

To be relabelled by SerP

Waste constituent
☐ Unknown ☐ ☐ ☐

Main hazard statements (H)

H20x Explosive
H228 Flammable solid
H27x May cause or intensify fire
H314 Causes severe skin burns and eye damage
H3xx Fatal/toxic if swallowed, in contact with skin or if inhaled
H351 Suspected of causing cancer
H4xx Toxic/harmful to the environment

Important note
Contact SerP : dechets-dangereux@unamur.be
Waste producer information

University of Namur 61, rue de Bruxelles, 5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93
Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

Filling start date

Department: Bldg: Room N°:

...../...../20.....

SOLID RESIDUE (SALT, SUBS. TECHN.)

Walloon waste code

To be completed by SerP

10/2025 - v1

Hazard pictograms

Transport information

To be relabelled by SerP

Waste constituent
☐ Unknown ☐ ☐ ☐

Main hazard statements (H)

H20x Explosive
H228 Flammable solid
H27x May cause or intensify fire
H314 Causes severe skin burns and eye damage
H3xx Fatal/toxic if swallowed, in contact with skin or if inhaled
H351 Suspected of causing cancer
H4xx Toxic/harmful to the environment

Important note
Contact SerP : dechets-dangereux@unamur.be
Waste producer information

University of Namur 61, rue de Bruxelles, 5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93
Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

(pH)

Filling start date

Department: Bldg: Room N°:

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...../...../20.....

SPECIAL CHEMICAL WASTE

Walloon
waste code

16 05 06

Laboratory chemicals consisting of or containing dangerous substances,
including mixtures of laboratory chemicals

07/2025 - v1

Hazard pictograms



Waste constituents

Contact SerP

- | | |
|--|---|
| ☐ Hydrogen cyanide/derivatives | ☐ Chromic acid (Cr6+) |
| ☐ Aniline (phenylamine) | ☐ Triethylamine (TEA) |
| ☐ Ethanal (acetaldehyde) | ☐ N,N-Dimethylformamide |
| ☐ Formalin/formaldehyde | ☐ Dimethylmercury |
| ☐ Methyloxirane (propylene oxide) | ☐ Heavy metals (Hg,Pb,...) |
| ☐ Pentane-1,5-dial (glutaraldehyde) | ☐ Nanomaterials |
| ☐ Other: | |

Do not mix! Use a small container (1 or 5 L)

Transport information

UN 3286

ADR: 3 (6.1) (8), II

Flammable liquid,
toxic, corrosive, n.o.s.

Potential hazard statements (H)

- | | |
|----------|--|
| H224/225 | Extremely/highly flammable liquid and vapour |
| H310/311 | Fatal/toxic in contact with skin |
| H330/331 | Fatal/toxic if inhaled |
| H314 | Causes severe skin burns and eye damage |
| H340/341 | May cause/is suspected of causing genetic defects |
| H350/351 | May cause/is suspected of causing cancer |
| H360/361 | May damage/is suspected of damaging fertility or the unborn child |
| H372/373 | Causes/may cause organ damage after prolonged or repeated exposure |

Waste producer information

University of Namur 61, rue de Bruxelles 5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93 Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

(pH)

Filling start date

Department: Bldg: Room N°:

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SPECIAL CHEMICAL WASTE

Walloon
waste code

16 05 06

Laboratory chemicals consisting of or containing dangerous substances,
including mixtures of laboratory chemicals

07/2025 - v1

Hazard pictograms



Waste constituents

Contact SerP

- | | |
|--|---|
| ☐ Hydrogen cyanide/derivatives | ☐ Chromic acid (Cr6+) |
| ☐ Aniline (phenylamine) | ☐ Triethylamine (TEA) |
| ☐ Ethanal (acetaldehyde) | ☐ N,N-Dimethylformamide |
| ☐ Formalin/formaldehyde | ☐ Dimethylmercury |
| ☐ Methyloxirane (propylene oxide) | ☐ Heavy metals (Hg,Pb,...) |
| ☐ Pentane-1,5-dial (glutaraldehyde) | ☐ Nanomaterials |
| ☐ Other: | |

Do not mix! Use a small container (1 or 5 L)

Transport information

UN 3286

ADR: 3 (6.1) (8), II

Flammable liquid,
toxic, corrosive, N.O.S.

Potential hazard statements (H)

- | | |
|----------|--|
| H224/225 | Extremely/highly flammable liquid and vapour |
| H310/311 | Fatal/toxic in contact with skin |
| H330/331 | Fatal/toxic if inhaled |
| H314 | Causes severe skin burns and eye damage |
| H340/341 | May cause/is suspected of causing genetic defects |
| H350/351 | May cause/is suspected of causing cancer |
| H360/361 | May damage/is suspected of damaging fertility or the unborn child |
| H372/373 | Causes/may cause organ damage after prolonged or repeated exposure |

Waste producer information

University of Namur 61, rue de Bruxelles 5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93 Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

(pH)

Filling start date

Department: Bldg: Room N°:

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UNKNOWN CHEMICAL WASTE

07/2025 - v1

Hazard pictograms

Waste constituents

UNKNOWN WASTE

Notify SerP
Suspected main hazard statements (H)

H226	Flammable liquid and vapour
H300	Fatal if swallowed
H310	Fatal in contact with skin
H330	Fatal if inhaled
H314	Causes severe skin burns and eye damage
H410	Very toxic to aquatic life with long lasting effects

Transport information
UN 3286

Flammable liquid, toxic, corrosive, N.O.S.

ADR:
3 (6.1) (8), II

Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93

 Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

(pH)

Filling start date

Department: Bldg: Room N°:

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UNKNOWN CHEMICAL WASTE

07/2025 - v1

Hazard pictograms

Waste constituents

UNKNOWN WASTE

Notify SerP
Suspected main hazard statements (H)

H226	Flammable liquid and vapour
H300	Fatal if swallowed
H310	Fatal in contact with skin
H330	Fatal if inhaled
H314	Causes severe skin burns and eye damage
H410	Very toxic to aquatic life with long lasting effects

Transport information
UN 3286

Flammable liquid, toxic, corrosive, N.O.S.

ADR:
3 (6.1) (8), II

Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F. Pirlot): 0470/21.29.93

 Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

Filling start date

Department: Bldg: Room N°:

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TRIZOL / PFA

Walloon waste code **16 05 08** Discarded organic chemicals consisting of or containing dangerous substances

07/2025 - v1



Waste constituents

☐ Trizol / TriReagent☐ ParaformaldehydeImportant note: one or the other — do not mix

Main hazard statements (H)

H301 Toxic if swallowed
H311 Toxic in contact with skin
H331 Toxic if inhaled
H318 Causes serious eye damage
H341 May cause genetic defects
H373 Specific target organ toxicity

H317 May cause an allergic skin reaction
H318 Causes serious eye damage
H350 May cause cancer

Transport information

UN 2922

ADR: 8,(6.1), II

Corrosive liquid, toxic, n.o.s.



Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F Pirlot): 0470/21.29.93

Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

Filling start date:

Department: Bldg: Room N°:

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TRIZOL / PFA

Walloon waste code **16 05 08** Discarded organic chemicals consisting of or containing dangerous substances

07/2025 - v1



Waste constituents

☐ Trizol / TriReagent☐ ParaformaldehydeImportant note: one or the other — do not mix

Main hazard statements (H)

H301 Toxic if swallowed
H311 Toxic in contact with skin
H331 Toxic if inhaled
H318 Causes serious eye damage
H341 May cause genetic defects
H373 Specific target organ toxicity

H317 May cause an allergic skin reaction
H318 Causes serious eye damage
H350 May cause cancer

Transport information

UN 2922

ADR: 8,(6.1), II

Corrosive liquid, toxic, n.o.s.



Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F Pirlot): 0470/21.29.93

Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

(pH)

Filling start date

Department: Bldg: Room N°:

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TOXIC OR CMR LIQUID

Walloon waste code **16 05 08** Discarded organic chemicals consisting of or containing dangerous substances

10/2025 - v1

Hazard pictograms



Waste constituents

☐ Phenol☐ Nitrobenzene☐ Aniline☐

Main hazard statements (H)

H30x Fatal/toxic if swallowed
H31x Fatal/toxic in contact with skin
H33x Fatal/toxic if inhaled
H34x May cause/is suspected of causing genetic defects
H35x May cause/is suspected of causing cancer
H36x May damage/is suspected of damaging fertility or the unborn child
H37x Causes/may cause organ damage through prolonged or repeated exposure

Transport information

UN 2810

Toxic liquid, organic, n.o.s.

ADR: 6.1, III

Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F Pirlot): 0470/21.29.93

Poison Centre: 070/245.245

Wear PPE when handling waste

Waste-producing department (UNamur)

(pH)

Filling start date:

Department: Bldg: Room N°:

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TOXIC OR CMR LIQUID

Walloon waste code **16 05 08** Discarded organic chemicals consisting of or containing dangerous substances

10/2025 - v1

Hazard pictograms



Waste constituents

☐ Phenol☐ Nitrobenzene☐ Aniline☐

Main hazard statements (H)

H30x Fatal/toxic if swallowed
H31x Fatal/toxic in contact with skin
H33x Fatal/toxic if inhaled
H34x May cause/is suspected of causing genetic defects
H35x May cause/is suspected of causing cancer
H36x May damage/is suspected of damaging fertility or the unborn child
H37x Causes/may cause organ damage through prolonged or repeated exposure

Transport information

UN 2810

Toxic liquid, organic, n.o.s.

ADR: 6.1, III

Waste producer information

University of Namur
61, rue de Bruxelles
5000 NAMUR

Useful contact details

SerP (J-F Pirlot): 0470/21.29.93

Poison Centre: 070/245.245

Wear PPE when handling waste