

Managing Research Laboratory Waste

Release Laboratory Waste to the Contractor



- from the perspective of
a waste store staff

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5th May 2021

Release laboratory waste to the contractor

- from the perspective of a waste store staff

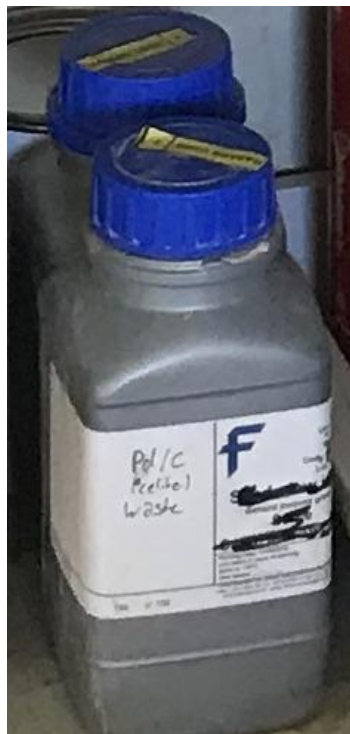
- Laboratory waste - what is it
- Laboratory Waste Store
- Waste Store staff - training and information
- Waste contractor - expectation and reality
- Unknown waste

Laboratory waste - what is it

Waste means

- any substance or object which the holder discards or intends or is required to discard, e.g. solvent waste, lamps containing mercury
- Not all laboratory waste is hazardous e.g. clean glass, high density polystyrene

Visualisation of waste



Laboratory Waste Store - temporary storage space



- Isolated room **ideally** fitted with a ventilated cupboard, automatic CO2 fire dampening system and extract

- Usage - temporary safe storage for hazardous waste only

Laboratory Waste Store - waste handover location

- Drop off point of laboratory waste by lab users -producer/holder- at the end of their working day
- Collection point for waste contractor driver

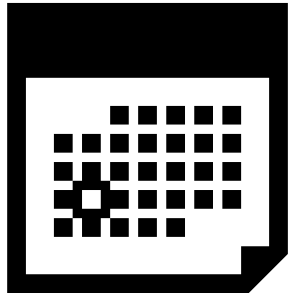


Laboratory waste stream outline

Contractor	Lab workers and store staff
Regular, bulky (>5L)	Solvents, silica, glass, vial, clinical. Periodical or one-off specific.
Lab smalls	Periodical or one-off specific. Stock chemical, out of date or left over.
Unknowns	Very occasionally

Collecting laboratory waste from the Waste Store

- **Action timeline after an agreed collection**



- Prior to collection day
 - On collection day
 - After collection day



Collecting laboratory waste from the Waste Store - **waste listing, complete prior to collection day**

- Waste **description** (and process involved if applicable)
- Waste **components** and concentrations or quantity
- Container material, size (weight or volume) and number
- State of waste - liquid, solid, powder, liquid/solid mixture
- Properties - physical, health and environmental

Collecting laboratory waste from the Waste Store - waste listing, prior to collection day

- Done by store staff or contractor
- List with contractor

Part of Consignment Note

Waste description	process generating the waste (Must be completed for each)	Components	Concentration	Container information				Physical state	HAZARD PROPERTIES	EWC CODE	UN #
		Please list on one line separated by a comma		Material type (example: Plastic, metal, cardboard)	Container Size (example:	Qty.	Estimated weight per container	Solid, liquid, gas, powder, sludge, mixed	Please list on one line separated by a comma		
Please be as specific as possible											

Chemical Name or Description of waste	Container Type	No. of containers	Container size / Volume	Physical State (Solid, Liquid, Gas Powder, Mixed)	Hazard Properties (HP1-HP15)	Lab smalls

Collecting laboratory waste from the Waste Store - Print labels by contractor prior to collection day

Print packing label from the consignment note - regular or bulk one-off

Waste description	process generating the waste (Must be completed for each)	Components	Concentration	Container information			Physical state	HAZARD PROPERTIES	EWC CODE	UN #
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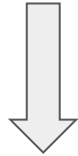
Lab smalls packing streams

- Acids
- Base
- Oxidiser ...
- Non-hazardous

Chemical Name or Description of waste	Container Type	No. of containers	Container size / Volume	Physical State (Solid, Liquid, Gas Powder, Mixed)	Hazard Properties (HP1-HP15)
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Collecting laboratory waste from the Waste Store - actions by contractor prior to collection day

Assess waste
to be collected



WM3

CLP -
Classification,
Labelling and
Packaging

- **Consignment Note**
- Label for transport
- Packing materials
- Packing containers
- Right size / insured vehicle
- Qualified driver

Although the contractor does complete the majority of this the legal responsibility remains with the waste producer for ensuring accuracy, therefore still need to check it.

Visualisation - examples of UN approved transport packaging



Visualisation - transport labelling - CLP

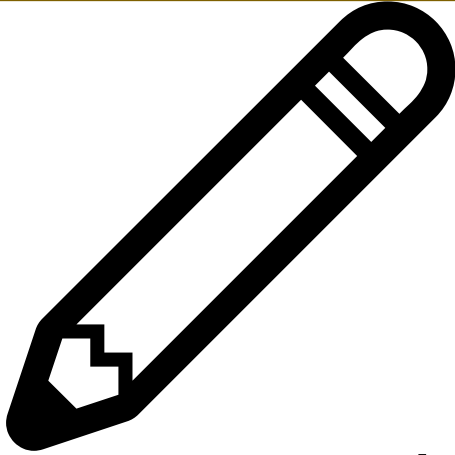


Collecting laboratory waste from the Waste Store - on the waste collection day

- Pack and label waste
- Sign and retain your copy of **Consignment Note (HWCN)**
- Secure containers inside of the vehicle
- Display orange hazard signage

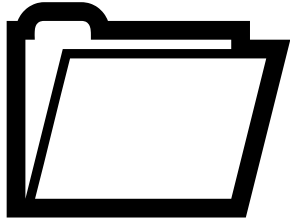


Hazardous Waste Consignment Note (HWCN)



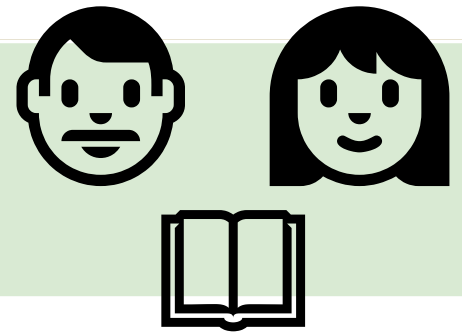
- Acceptance confirmation - A code
- Quantity received (kg)
- Destination - R
or D codes

Collecting laboratory waste from the Waste Store - **after the waste collection day**



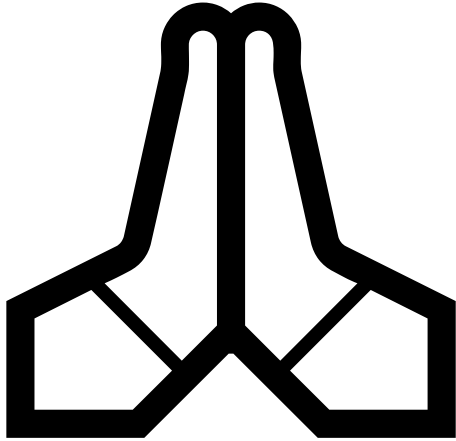
- Retain copies of **completed** Hazardous Waste **Consignment Note (HWCN)** for each collection (digital or hard copies or both)

Waste Store Staff - job role



- Learning on the job in support of operation
- Only limited and patchy resources available
- Coordinate between lab users and contractor
- Keep waste stock level to minimum
- Ensure waste collected by authorised contractor
- Seek advice from those who are in the know

Waste contractor - expectation and reality



- Collect everything in the store in reasonable time
- Share good practices, resources, or tools?
- Provide training?

Unknown waste, what to do?

- Contractors do have no listing no collection policy

- **Prevention** of unknown is always the best plan

Unknown waste

- **action for the unknown holders**

- But ...
 - Provide as much information as possible
 - Location & history
 - Physical property
 - Consult with individuals in charge

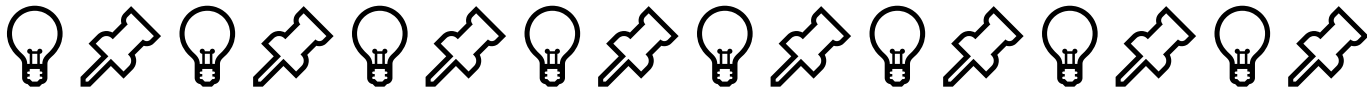
Unknown waste

- **action for contractor**




- But
 - Segregate into solids & liquids, do pH test
 - Pack a maximum 2 kg together at a time or singularly if items larger than 2kg
 - Packaged securely and transported
 - One-off special collection

Final remark - awareness of complexity

- Release laboratory waste to the contractor is a process that is highly regulated, logistical operation that involves multiple stakeholders
- Knowledge and experience gaps between ideal situation and daily operation have been noticed. Training provision and resource sharing could benefit all parties involved



Final recommendation

- Do not mix your waste if it doesn't fit into any agreed waste streams
- Seek advice if not certain  
- Think what you could do in you daily work to improve laboratory waste disposal operation 

Thank you for
listening & watching!

