

School of Chemistry
Hazardous Waste Management Plan

SOPs for the disposal of hazardous waste generated in the
School of Chemistry

SOC Hazardous Waste Management Plan

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SOC Hazardous Waste Management Plan

SoC Waste Management Plan		
Waste	packaging	collected in/on/by
organic solvents (non-halogenated)	10L waste solvent containers	pallet in fire rated container
organic solvents (halogenated)	10L waste solvent containers	pallet in fire rated container
aqueous extractions from organic synthesis	10L waste solvent containers	pallet in fire rated container
chemically contaminated lab waste	red bags	green drums
chemically contaminated glass and sharps	blue 60L containers	pallet beside waste solvent shed
alumina	old alumina containers	blue drums
silica	old silica containers	blue drums
potentially infectious (soft) laboratory waste	yellow bags	grey wheelie bins
potentially infectious (rigid) laboratory waste	yellow 30/60L bin with yellow lid	in fire rated container
potentially infectious laboratory waste contaminated with chemicals	yellow 60L bin with purple lid	in fire rated container
potentially infectious laboratory sharps contaminated with chemicals	yellow 12L bin with purple lid	in fire rated container
recognizable animal tissue	green freezer bag	Contact Patrick Waldron
<i>general waste</i>	<i>brown bags</i>	<i>cleaners</i>
empty glass bottles	none	glass wheelie bins
empty plastic/aluminium bottles	none	720L greyhound wheelie bins
<i>paper</i>	<i>square boxes or brown bags</i>	<i>cleaners</i>
Irregular lab smalls	Contact School Hazardous Waste Coordinator, Patrick Waldron. Ext. 2301, S0.96.	
GMMs		

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SOP for the disposal of non-halogenated solvent waste generated in the School of Chemistry:

- Collect a 10L non-halogenated solvent waste container from Chemistry Stores.
- This container will have a large red diamond with flame (see photograph below).
- The container will be barcoded and scanned in by a Stores officer for tracking purposes.
- Use the waste container to collect non-halogenated solvent waste.
- Fill the waste container to 90% capacity.
- Bring the waste container to Stores and place it on the appropriate pallet in the fire rated container, lining it up as instructed on the pallet.
- **All waste containers returned to Chemistry Stores must have the correct labels (shipping and barcode). Containers without appropriate labels will not be accepted.**



Non-halogenated solvent waste container



Containers stacked on pallet in fire rated container

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SOP for the disposal of halogenated solvent waste generated in the School of Chemistry:

- Collect a 10L halogenated solvent waste container from Chemistry Stores.
- This container will have a large white diamond with skull and crossbones (see photograph below).
- The container will be barcoded and scanned in by a Stores officer for tracking purposes.
- Use the waste container to collect halogenated solvent waste.
- Fill the waste container to 90% capacity.
- Bring the waste container to Stores and place it on the appropriate pallet in the fire rated container, lining it up as instructed on the pallet.
- **All waste containers returned to Chemistry Stores must have the correct labels (shipping and barcode). Containers without appropriate labels will not be accepted.**



Halogenated solvent waste container



Containers stacked on pallet in fire rated container

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SOP for the disposal of aqueous extractions from organic synthesis generated in the School of Chemistry:

- Contact the School Safety advisor to ensure the components of the aqueous extractions are compatible with the waste stream.
- Collect a 10L non-regulated aqueous waste container from Chemistry Stores.
- This container will have a large black and white diamond showing a hand and a flat surface being dissolved by liquid.
- The container will be barcoded and scanned in by a Stores officer for tracking purposes.
- Use the waste container to collect aqueous extractions.
- Use extreme caution when combining aqueous solutions that may react in the waste drum
- Fill the waste container to 90% capacity.
- Bring the waste container to Stores and place it on the appropriate pallet in the fire rated container, lining it up as instructed on the pallet.
- **All waste containers returned to Chemistry Stores must have the correct labels (shipping and barcode). Containers without appropriate labels will not be accepted.**



Corrosive waste container



Containers stacked on pallet in fire rated container

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SOP for the disposal of chemically contaminated laboratory waste generated in the School of Chemistry (ie. anything which has come into contact with chemical agents; nitrile gloves, filter paper, etc):

- Collect a red chemical waste bag from Chemistry stores.
- The bag will be barcoded and scanned in by a Stores officer for tracking purposes.
- Place the waste into the chemically contaminated laboratory waste bin (see photograph below).
 - *Note: It is advisable to use a small rigid container for plastic pipette tips to prevent them from puncturing the bag.*
- When the bin is 2/3 full; close and seal the bin.
- Bring the bin to Chemistry Stores and carefully place inside the green chemical waste drums.
- *Note: sharp objects, glass, hard plastics or free liquids **must not** be placed into this bin.*



Chemically contaminated laboratory waste bin.



Blue chemical waste drums.

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SOP for the disposal of chemically contaminated glass and sharps generated in the School of Chemistry:

- Collect a chemically contaminated glass and sharps bin from Chemistry Stores.
- This container will be barcoded and scanned in by a Stores officer for tracking purposes.
- Carefully place all chemically contaminated glass, sharps, and hard plastics for disposal into this bin.
- When the bin is full; close and seal the bin with the latching metal ring.
- Return the bin to Chemistry Stores and place it on the designated pallet.
- *Note: these bins should not be used for disposal of free liquids.*



Chemically contaminated
glass and sharps bin



Pallet for glass and sharps bins

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SOP for the disposal of waste alumina generated in the School of Chemistry:

- Re-use an old alumina container as a waste alumina container.
- Label the container as alumina waste.
- Place the waste alumina into the container and seal the container.
- Bring the waste alumina container to Chemistry Stores and place inside the chemical waste drums.



Blue chemical waste drums

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SOP for the disposal of waste silica generated in the School of Chemistry:

- Re-use an old silica container as a waste silica container.
- Label the container as silica waste.
- Place the waste silica into the container and seal the container.
- Bring the waste silica container to Chemistry Stores and place inside the chemical waste drums.



Blue chemical waste drums

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SOP for the disposal of potentially infectious (soft) laboratory waste generated in the School of Chemistry (i.e. anything which has come into contact with biological agents; nitrile gloves, plastic pipette tips, etc):

- Collect a yellow potentially infectious waste bag from Chemistry stores.
- The bag will be barcoded and scanned in by a Stores officer for tracking purposes.
- Place the waste into the potentially infectious laboratory waste bin (see photograph below).
 - *Note: It is advisable to use a small rigid container for plastic pipette tips to prevent them from puncturing the bag.*
- When the bin is 2/3 full; close and seal the bin.
- Bring the bin to Chemistry Stores and contact a Stores Officer.
- Carefully place the yellow bag into the UN approved yellow bag (see photograph below).
- Carefully place the double bagged waste into the grey wheelie bin.
- *Note: Bags which are torn or contain free liquids cannot be accepted by Stores.*



Potentially infectious waste bag



UN approved bag



Grey wheelie bin

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SOP for the disposal of potentially infectious (rigid) laboratory waste generated in the School of Chemistry (*i.e. anything which has come into contact with biological agents; plastic pipette tips, etc*):

- Collect a 30L or 60L yellow container with yellow lid from Chemistry stores.
- The container will be barcoded and scanned in by a Stores officer for tracking purposes.
- Place the waste in the potentially infectious (rigid) laboratory waste bin (see photograph below).
- When the bin is full; close and seal the bin.
- Bring the bin to Chemistry Stores and place in the fire rated container.
- *Note: no free liquids.*



Potentially infectious (rigid)
laboratory waste bin

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SOP for the disposal of potentially infectious laboratory waste contaminated with chemicals generated in the School of Chemistry:

- Collect a 60L yellow container with purple lid from Chemistry stores.
- The container will be barcoded and scanned in by a Stores officer for tracking purposes.
- Place the waste in the potentially infectious laboratory waste contaminated with chemicals bin (see photograph below).
- When the bin is full; close and seal the bin.
- Bring the bin to Chemistry Stores and place in the fire rated container.
- *Note: no free liquids.*



Potentially infectious laboratory waste contaminated with chemicals bin

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SOP for the disposal of potentially infectious laboratory sharps contaminated with chemicals generated in the School of Chemistry:

- Collect a 12L yellow container with purple lid from Chemistry stores.
- The container will be barcoded and scanned in by a Stores officer for tracking purposes.
- Place the waste in the potentially infectious laboratory sharps contaminated with chemicals bin (see photograph below).
- When the bin is full; close and seal the bin.
- Bring the bin to Chemistry Stores and place in the fire rated container.
- *Note: no free liquids.*



Potentially infectious laboratory sharps contaminated with chemicals bin

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SOP for the disposal of recognizable animal tissue generated in the School of Chemistry:

- Place the recognizable animal tissue into a green recognizable animal tissue waste bag (available on request from Mr. Patrick Waldron, School Hazardous Waste Coordinator, at ext. 2301 or office S0.96.)
- Place the green waste bag into a labelled cardboard box and then into a freezer.
- Once this waste is packaged, labelled and frozen appropriately, a time can be arranged with Adam for the container to be brought to Chemistry Stores for collection and disposal.



Recognizable animal tissue waste bag

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SOP for the disposal of general waste generated in the School of Chemistry (*ie. non-sharps or chemically/biologically contaminated waste*):

- Place the waste in the general waste bin (see photograph below).
- When the bin is 2/3 full; close and seal the bin.
- Place the bin outside the laboratory for collection by cleaners.
- *Note: blue nitrile gloves must not be placed in this bin.*



General waste bin

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SOP for the disposal of empty glass bottles generated in the School of Chemistry:

- Completely empty the bottle.
- Rinse the bottle with hot water 3 times.
- Remove the label.
- Bring the bottle to Chemistry Stores and carefully place into a glass wheelie bin.



Brown glass wheelie bins

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SOP for the disposal of empty plastic/aluminium bottles generated in the School of Chemistry:

- Completely empty the bottle.
- Rinse the bottle with hot water 3 times.
- Remove the label.
- Bring the bottle to the waste compound behind Science North and place into a 720L Greyhound wheelie bin.



720L Greyhound wheelie bins

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SOP for the disposal of paper waste generated in the School of Chemistry:

- Place the waste in the paper and cardboard recycling bin or the general waste bin (see photographs below).
- When the bin is full, place it outside the laboratory for collection by cleaners.



Paper and cardboard recycling bin



General waste bin

SOP for the disposal of Irregular laboratory smalls generated in the School of Chemistry (i.e. all waste which does not fit into the waste streams handled regularly by Chemistry Stores and for which there is no specific SOP.):

- Fill out an irregular laboratory smalls waste form (see Appendix 1).
- Print a copy of this form, sign it and contact Mr. Patrick Waldron, School Hazardous Waste Coordinator, at ext. 2301 or office S0.96.
- Patrick will also ask you to email a copy of this form to patrick.waldron@ucd.ie
- After consultation with SRCL, he will provide the appropriate packaging and labelling for this waste.
- Once this waste is packaged and labelled appropriately, a time can be arranged with Patrick for the container to be brought to Chemistry Stores for collection and disposal.

SOP for the disposal of Genetically Modified Materials generated in the School of Chemistry:

- Contact Mr. Patrick Waldron, School Hazardous Waste Coordinator, at ext. 2301 or office S0.96.
- After consultation with SRCL, he will provide the appropriate packaging and labelling for this waste.
- Once this waste is packaged and labelled appropriately, a time can be arranged with Patrick for the container to be brought to Chemistry Stores for collection and disposal.

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Irregular lab smalls waste form:

Identifying label on container (this should be written: Group – Producer – Short description):
Produced by:
Group:
Description:
Solvents (if applicable):
Solutes (if applicable): <i>(including approx. concentrations)</i>
pH (if applicable):
Hazards:
Volume and container type:

I declare that the above information is accurate.

Signed:

Date:

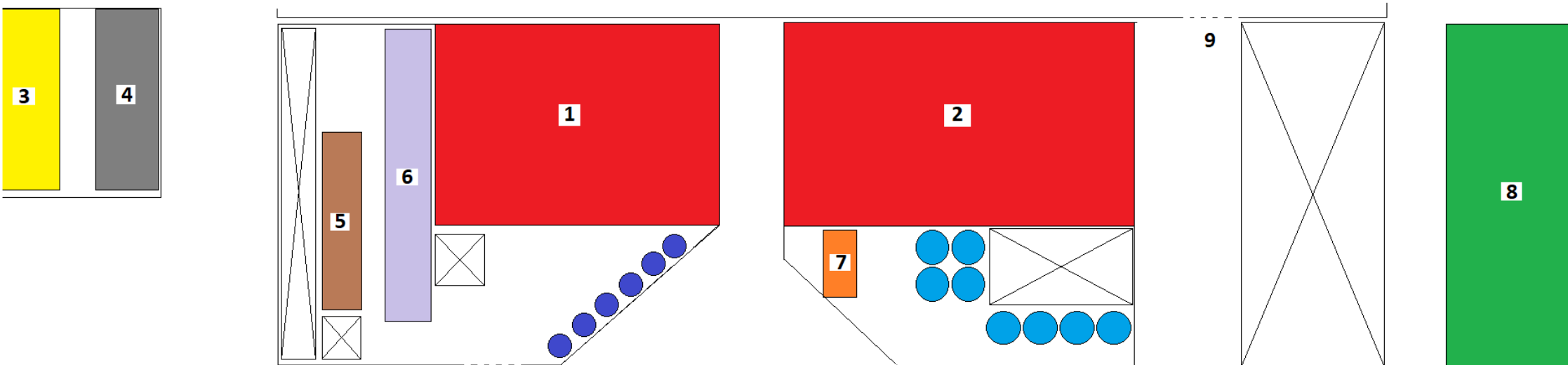
For School Hazardous Waste Coordinator's use only.

Form no.:

Location of waste	
Classification	
Container type	
Container tag no.	
P.O. no. for disposal	

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Stores compound layout:



1. Waste solvent shed
2. Stores solvent storage
3. Biological waste (Biology only)
4. Biological waste (Chemistry only)
5. Glass bottle disposal
6. Gas vault
7. Solids waste compactor
8. Recycling/general waste disposal
9. Access via emergency exit