Chemical Management

Author	Role	Version	Issue date
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1. Purpose

To provide guidance on the sustainable management of chemicals and support the University to achieve objectives set out in the Environmental Policy and maintain compliance with the ISO 14001:2015 environmental management system**.**

For more information around Chemical Safety Management please see the Health and Safety intranet page here.

2. Scope

This document is relevant to all laboratory users that work with chemicals.

3. Procedure

Chemical management can cost up to £1 for every £1 spent on the chemical itself. A good chemical management system can help laboratories keep track of their chemicals and prevent unnecessary waste.

3.1 Procurement

Before purchasing a chemical check that it is not already available in the laboratory, see section 3.4 regarding a chemical inventory. If the chemical is not available then purchase the smallest amount possible.

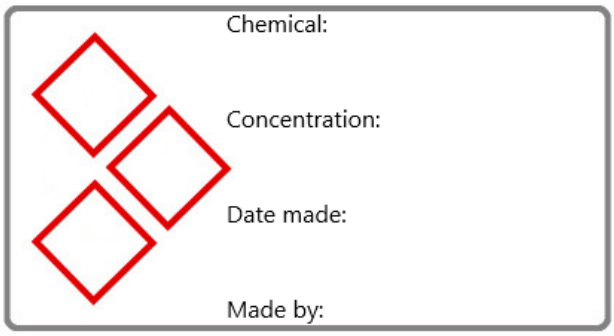
3.2 Preparing Chemicals

When preparing chemicals, the 12 principles of green chemistry should be followed where possible. It is better to prevent waste than to treat or clean up waste after it has been created.

When designing experiments check if a less hazardous chemical can be used. Plan in advance and only make up the required amounts, try not to make up in excess.

3.3 Labelling

When preparing chemicals make sure they are well labelled, they should all be labelled with the chemical name, date prepared, name of person who made it and also contain any relevant hazard labels. For more information on hazard labels see here. Consider using the following template that can be printed onto stickers:



A good labelling system will help with identifying chemicals. When chemicals are prepared and cannot be identified they must be disposed of as unknown chemicals and this can cost 5x more than a known chemical.

3.4 Management

A chemical inventory should be available for all laboratories, this can either be done using a commercial database or an in-house document.

When logging chemicals for the inventory it is a good idea to dispose of any chemicals that are not used and also dispose of any old chemicals.

Use the dot method to find out which chemicals are regularly used and which are not. Place a dot sticker on the lid of each chemical, ask laboratory users to remove this dot when they use the chemical. After 6 months, or when the inventory is checked, if the sticker remains then this is a good indicator the chemical is not needed and should be removed. Any chemicals that are going to be disposed of can be offered to other groups/departments to see if they can be used before disposal (see section 3.6 regarding disposal).

3.5 COSHH

COSHH forms should be available for all chemicals in the laboratory. Depending on which faculty you belong to will depend on how and where COSHH forms are stored.

3.6 Disposal

Hazardous chemicals need to be disposed of correctly to comply with the Water Industry Act 1991, the Environmental Protection Act 1990, the Environmental Damage (Prevention and Remediation) Regulations 2015 and the Hazardous Waste Regulations 2005. The correct disposal of chemicals also helps to protect the Universities drainage infrastructure and the environment further afield.

You must know how to correctly dispose of your waste chemicals, If unsure please contact your local Health and Safety advisor and see the Hazardous waste COP for more information. Members of the faculty of Science and Engineering should follow the chemical waste procedure here.

Disposal of hazardous waste chemicals is arranged via Avanti (uk.mts@tradebe.com), please see local guidance on how to arrange a collection in your area.

4. Changes to the procedure

Version	Reason for change	Date
1.0		November 2023
2.0	Change to purpose, scope, sections 3.3, 3.4, 3.5 and 3.6	January 2024