

# Working safely with Corrosive and Irritating Substances

## Introduction

This document contains additional work instructions for working safely with corrosive (caustic) and irritant substances within laboratories. If you have any questions or ambiguities regarding these work instructions or the substances you intend to use, you can always consult the Armico or contact HSB.

Corrosive and irritant substances are substances that can cause damage to skin, eyes and respiratory tract when exposed. This can range from skin redness and burns to irreparable damage to tissue. Given the hazardous properties of these substances, it is important to work with them as safely as possible.

## Safe working methods

- Wear suitable gloves when working with corrosive and irritant substances (information via Armico),
- Work with corrosive substances in a validated fume cupboard or closed equipment (see work instruction on working safely in a fume cupboard),
- Use suitable respiratory protection if you are forced to carry out work outside the fume cupboard (information via Armico),
- Preferably weigh corrosive and irritant substances that can be atomised in a powder weighing cabinet (information via Armico),
- Dilute hygroscopic corrosive liquids, e.g. concentrated sulphuric acid, by slowly adding these liquids to water, NEVER the other way around!
- Preferably transport corrosive and irritant substances in original packaging from supplier, or else in bucket with lid that can contain entire contents of packaging,
- Keep stocks of corrosive substances such as strong acids and bases as limited as possible,
- Absorb spills with a suitable absorbent, dispose of waste properly. Rinse contaminated surface well with water. Use pH paper to check for complete clean-up,
- Store chemicals according to the guideline (see Storage according to PGS15)
- The maximum permitted volume of corrosive and irritant substances in glass bottles is 2.5 litres.

## List of abbreviations

FHML	Faculty of Health, Medicine and Life Sciences
HSB	Health, Safety and Buildings
UM	Maastricht University