

## Chemical Safety Checklist HSR Sept 2021

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This is a non-exhaustive checklist to assess chemical safety in laboratory and other types of work environments where chemicals are used. It can be adapted to suit specific workplace circumstances and incorporated into risk assessments, staff training, procedures or used during inspections. Further professional advice may be required in relation to specific workplace hazards and risk. To download a copy click on [www.healthandsafetyreview.ie](http://www.healthandsafetyreview.ie) or email [ronan@irn.ie](mailto:ronan@irn.ie) for a copy of this checklist.

1.0	Chemical purchasing	Yes/No or N/A	Follow up action/comment
1.1	Is there a chemical inventory e.g., a list of chemicals, their hazard classes, supplier, storage location, supplier name and supplier specific Safety Data Sheet (the most current version should be available)?		
1.2	Is chemical purchasing completed by one person/ department or centrally controlled?		
1.3	Prior to receipt of new chemicals into the workplace is an assessment of the Safety Data Sheet completed, storage, use and disposal requirements checked?		
<b>2.0</b>	<b>Safety Data Sheets (SDS)</b>		
2.1	Do all staff who use hazardous chemicals have access to current SDS's and/or information on hazards and precautions to take?		
2.2	Are SDSs compliant with the most recent format required under the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulations? e.g., 16 sections, section 2 listed as hazards and an emergency telephone number to contact.		
<b>3.0</b>	<b>Risk Assessment</b> <i>SHWW (Chemical Agents) Regulations 2001, reg (4)</i>		
3.1	Are there chemical risk assessments completed for all relevant chemicals taking into account the legislative requirements? e.g., level, type, duration of exposure, hazards of the chemical, activity it is used for, occupational exposure limit values (OELV), preventative measures, accidental release etc?		
3.2	Are chemical risk assessments regularly reviewed?		
3.3	For new activities involving hazardous chemicals is a risk assessment completed in advance identifying preventative measures?		
3.4	Are risk assessments communicated to relevant staff in a format they understand?		
<b>4.0</b>	<b>Prevention and Control of Exposure</b> <i>SHWW (Chemical Agents) Regulations 2001, reg (5)</i>		

4.1	Is the workplace designed and organised to facilitate a safe system of work with chemicals? e.g., safe access and egress, safe work space, storage areas etc		
4.2	Is suitable equipment provided for use with the chemicals? e.g., laboratory equipment, glassware etc.		
4.3	Is the number of workers exposed to chemicals limited where possible?		
4.4	Are there suitable hand hygiene and changing facilities for work wear available?		
4.5	Are there procedures for the safe handling, storage and transport of chemicals?		
<b>5.0</b>	<b>Protection and Prevention measures?</b> <i>SHWW (Chemical Agents) Regulations 2001, reg (6)</i>		
5.1	Are engineering measures in use to extract fumes/vapours where needed? e.g., (1) Laminar flow booth with height adjustable sash window alarm and calibration sticker/ cert. (2) Extraction arm/ canopy where air flow rates are checked for compliance with original installation specification.		
5.2	Is Personal Protective Equipment (PPE) available to all staff and worn correctly? e.g., laboratory coats ( for laboratories) with cuffed sleeves and buttoned up, safety glasses, safety footwear, chemical resistant gloves, respiratory protection as appropriate.		
5.3	Is occupational exposure monitoring required/completed for any hazardous chemicals? e.g., monitoring may be done to check the concentration of the chemical in air is within the required limit as per the Chemical Agents Code of Practice (link at bottom of this list).		
5.4	Where occupational exposure monitoring has been completed have results been communicated to staff and remedial measures taken where exceedances of OEL's were recorded?		
5.5	Is Health Surveillance required for any particular risks staff are exposed to which may result in an identifiable disease? e.g., health surveillance is completed by an occupational health trained professional and may involve medical checks or health questionnaires.		
<b>6.0</b>	<b>Accidents and Incidents</b> <i>SHWW (Chemical Agents) Regulations 2001, reg (8)</i>		
6.1	Is there a first aid kit available with in date stock?		
6.2	Is there a procedure on what to do in the event of an accident or emergency? e.g., contact names and numbers should be up to date.		

6.3	Is there a spill procedure and spill kit available and are staff trained in its use? e.g., the spill kit should be stored away from chemicals.		
6.4	Are accident records maintained for minor and more significant accidents with close out of corrective actions?		
6.5	Are accidents resulting in greater than or equal to three days work absence reported to the HSA on line reporting system?		
6.6	Is there a safety shower and/or eye wash station which is maintained with records in place? e.g., flushed or cleaned regularly.		
6.7	Are fire extinguishers available, accessible and staff trained in their use?		
<b>7.0</b>	<b>Chemical Storage and Disposal</b>		
7.1	Are chemicals stored according to their hazard classification? acids, bases, corrosives, oxidisers, flammables etc.		
7.2	Are storage containers in good condition, lockable, signed and corrosion free?		
7.3	Are poisons stored securely away from other chemicals?		
7.4	Are drip trays used to collect potential spills/ drips from containers?		
7.5	Are there any carcinogenic, mutagenic, or reproductive (CMR) hazard chemicals present which require specific precautions with regard to storage, handling or use?		
7.6	For CMR chemicals is a register maintained of all those persons exposed to those chemicals?		
7.7	Are staff aware of what the hazard pictograms mean on the labels of containers?		
7.8	Is the waste storage areas maintained clean and tidy with chemicals segregated according to hazard classification?		
7.9	Is there any out of date/ unidentified chemicals stored under presses or in cabinets which may need to be disposed of?		
	Any other items		

**Relevant legislation, guidance and links:**

Safety, Health and Welfare at Work (Chemical Agents) Amendment Regulations 2015, S.I. No. 623 of 2015 and S.I. 619 of 2001, link: <https://tinyurl.com/667cvryb>

Directive 2004/37/EC Protection of workers from the risk related to exposure of carcinogens or mutagens at work, Link: <https://tinyurl.com/3nfawsbh>

Your steps to chemical safety, link: <https://tinyurl.com/jxparhn2>

Risk assessment of chemical hazards, link: <https://tinyurl.com/znexfjh2>

Safety Data Sheet information sheet, link: <https://tinyurl.com/d54c4ua6>

Chemical Agents Code of Practise 2021, link: <https://tinyurl.com/7b45k4vv>

Storage of hazardous chemicals in warehouses and drum stores, link: <https://tinyurl.com/63bv5zpb>

Storage of hazardous chemicals in laboratories, link; <https://tinyurl.com/4xde92kt>

HSA Chemical safety in the workplace free on-line course, link: <https://tinyurl.com/hafzj3wd>