



RISK ASSESSMENT OF CHEMICALS IN ECOARCHIVE

The University of Bergen's Register of Chemicals uses the ECOarchive solution from ECOonline, which is a tool used to chart and perform risk assessments on chemicals and biological factors that are hazardous to health. When considering the use of chemicals for which there is no associated work instruction, a risk assessment must be conducted as described in this document before starting to use the chemical.

The risk assessment in the Register of Chemicals includes:

- The inherent properties of the chemicals as described by R- and H-phrases
- Particular properties and hazards that may trigger a requirement for registration as indicated, among other places, in
Section 28 of the
Regulations relating to
Chemicals
- A description of the method of use, graded according to the danger of exposure
- Annual usage
- Stock level
- Overriding (where the risk circumstances justify this, the risk picture may be overridden in both directions)
- List of measures
- Description of assessments regarding substitution

Description of risk assessment in respect of the requirements indicated in Section 6 of the Regulations relating to Chemicals

The risk assessment should take particular account of:

- a) the hazardous properties of the chemicals
This aspect must be seen in the context of part b)

Safety data sheets are available in ECOcenter. These are continually updated by the suppliers of the chemicals or entered via ECOplus, which is a service provided by ECOonline. In this way, the users at the University of Bergen have the latest HSE information about the products available at all times. In addition to this, safety data sheets and information sheets will be entered on ECOarchive by the users themselves.

The inherent properties of the chemicals are described by the labelling and hazard identification of the product. For a transition period, there will be both labelling according to DSD/DPD and CLP. The same applies to the hazard identification in R- and H-phrases. The inherent properties of the chemicals are categorised in classes 1–7, where 7 is the most potent. The overall assessment will take this into account.

- b) the information on the risk to health, safety and the environment provided by the supplier
The supplier's description of the inherent properties is indicated in the safety data sheets and information sheets in ECOarchive.
- c) the conditions in the workplace where the chemicals are found
The University of Bergen uses location type "Laboratory" and the expanded location description "ECOarchive" to describe the conditions in the workplace. It is then possible to categorise the laboratory in classes 1–5 on the basis of the need for protection according to the degree of hazard posed by the chemicals. This may be compared with the degrees of containment described in the legislation relating to radiological protection and work using biological factors. The University of Bergen will work to ensure that most research laboratories meet the requirements of safety level 3, which will include the presence of the following



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protective arrangements and equipment:

Safety equipment

- Eye bath/emergency shower



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- Collection set for chemical spillages
- First aid box
- Access to fire extinguishing equipment and a fire blanket
- Personal protective equipment
- Laboratory coats
- Safety goggles
- Access to a face mask and respiratory protective equipment
- Access to disposable gloves and protective gloves
- Special ventilation
- Class 2 fume cupboard/safety cabinet (own ventilation duct, but may be in series with other special ventilation units)

Premises

- Negative pressure
- Surfaces are waterproof and even to facilitate cleaning and any collection in the event of an accident
- Surfaces are resistant to the use of chemicals
- Access to a washbasin
- Separate area for class 4 chemicals

Additionally, there are requirements relating to:

- Buildings
- Storage
- Heating, ventilation and sanitation
- Electricity

d) volume and method of use of chemicals

The method of use and volume are registered. The method of use describes the degree of expected exposure.

e) whether or not the work processes and work equipment are appropriate

The University of Bergen must describe and carry out measures when the work processes, work equipment or other circumstances are not satisfactory. The measures are described in the "Measures" field.

f) number of employees expected to be exposed

Knowing the number of people present at a place of work at all times is always a challenge. Given the method of working and the volume of chemicals involved, then based on a risk assessment only those who work with the chemicals can be exposed. This is taken into account in the risk assessment.

For the parts described below, a prompt text has been drawn up that is completed and entered under the risk assessment of the individual substance under "Substitution" and "Comments on conclusion".

g) exposure type, level, duration and frequency and exposure routes h)

limit values and administrative standards

i) effect of implemented and planned preventive measures



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The prompt text is completed and entered under the risk assessment of the individual substance under "Substitution" and "Comments on conclusion".

Exposure type, level, duration and frequency and exposure routes

What is the expected exposure route? (H = Skin, L = Inhalation, M = Ingestion):

What is the usual concentration of the substance

during use (molar): Duration of exposure each time

(minutes/hours):

Regularity

Research-related use (monthly use, enter x):

Routine use (weekly use, enter x)

Limit values and administrative standards

This applies if, according to a risk assessment, the employees may be exposed to this chemical. Reference 1.

Is there an administrative standard for the substance? (No/Yes): If Yes, enter this in ppm:

Is there a limit value (ceiling value) for the substance? (No/Yes): If Yes, enter this in ppm:

Describe the expected effect of planned preventive measures:

Measures may be transferred to the unit's action plan

Injuries, illnesses, industrial accidents and events leading to such accidents

Has this happened before when using this substance in this location?

(Yes/No) If Yes, describe the event:

If Yes, has this been reported to the correct authority? (Yes/No):

Reference

1. Reference "Administrative standards for contamination of the work atmosphere", Norwegian Labour Inspection Authority

(order reference no. 361).

2. Guidelines for reporting non-conformances, accidents and near-accidents