

Office of Occupational Health and Safety, Animal Welfare and Environmental Protection

# Safety Guidelines

**University of Würzburg**

Last update:

Workplace/activity:

|  |
| --- |
|  **Scope** |
|  | **Decanting and Transfer of Liquid Chemicals**These guidelines cover the safe decanting and transfer of liquid chemicals.There are separate safety guidelines for working with those chemicals. |
| Safety, health and environmental risks |
|  | * Different chemicals have different hazards associated with them.

More information about the specific hazards of a particular chemical can be found on its label and in its safety data sheet!* Toxic inhalation hazards (inhalation of toxic solvent vapours) caused by incorrect decanting or transfer.

 * Explosions caused by the release of significant amounts of flammable gases, vapours or aerosols.
* Splash or projectile hazards when the front sash is open.
 |
| Safety practices |
|  | * **Always follow laboratory safety guidelines and the guidelines for the safe operation of chemical storage facilities!**
* Hazard areas must be marked off and identified with warning and safety signs.
* **IMPORTANT! Always store chemicals in compatible storage groups! Chemicals must be decanted or transferred separately from each other.**
* **Mistakes made when decanting or transferring chemicals may lead to unintended reactions inside the container!**
* Before handling (loading, transporting, decanting etc.) chemicals, personnel must become familiar with the hazards associated with them.
* Information about the hazards of chemicals can be found on the labels on their containers and in their safety data sheets.
* If at all possible, work with closed apparatus/equipment or in a fume hood/cupboard. Before work begins and while work is ongoing, always ensure that the fume hood/cupboard is functioning correctly (green light = exhaust airflow rate OK). Periodic inspections to ensure that the fume hood/cupboard is in proper working order!
* **Decanting or transferring while the ventilation system is down (red light) is not allowed!**
* If working in a fume hood/cupboard is not possible, use suitable pumps with flexible local extractors.
* Avoid release of the substance to the surrounding area!
 |

|  |  |
| --- | --- |
|  |  |
|  | * + **Take explosion safety precautions both when working in a fume hood/cupboard and when using mobile decanting units!**
* When decanting or transferring liquid chemicals, bond conductive equipment, e.g. drums, funnels or pumps, together.
* In Ex zones, only use explosion-proof equipment.
* When transferring liquid chemicals to plastic or glass vessels, preferably use funnels made of glass or plastic that extend to the bottom of the vessel.
* Do not use equipment that may spark.
* **Observe any applicable work restrictions!**
* **Use personal protective equipment (PPE)**
* Wear appropriate chemical-resistant protective gloves!

After use, take precautions to avoid spreading the chemicals and to prevent contamination.* Use the necessary PPE properly (appropriate clothing and sturdy, closed-toe shoes as well as eye protection).
* Respiratory protective equipment: If chemical exposure cannot be guaranteed to be maintained at or below occupational exposure limits at all times, gas masks with appropriate multi-area combination filters must be worn.
	+ After transferring a chemical to a container, the container must be labelled with the unambiguous chemical name of the content and with the appropriate hazard symbols. The labels must be permanent and must be prominently displayed on the container.
	+ Excess pressure build-up may occur in sealed containers, caused by solvents with lower boiling points. Do not open containers until pressure equalization has been achieved and use caution when opening them! Use caution when handling larger containers holding residual quantities of chemicals - explosion hazard!
	+ Always store chemicals in a cool and well-ventilated area in tightly sealed containers. Do not expose containers to direct sunlight!
	+ Avoid splashing, spurting or afterflow.
	+ Keep stocks to the minimum necessary; store containers away from flames and high temperatures. Keep away from ignition sources.
	+ Suitable carrying aids must be used when transporting containers holding chemicals to and from the supply room. Containers holding chemicals must be closed when being transported.
 |
| **What to do in hazardous situations** |
|  | * Spilled liquids must be soaked up immediately with chemical spill binder!
* Spilled material must be prevented from entering a sewer!
* **Emergency number for fire: 112**
* Call the fire brigade: If possible, attempt to extinguish incipient fires with an available extinguisher (do not use a water jet).
* Leaking taps must be replaced immediately, defective containers must be replaced without undue delay.
* In the event of a larger spill or when a container is dropped during decanting or transfer, immediately soak up liquids spilled inside the barrier with a suitable binding agent.
 |

|  |  |
| --- | --- |
|  |  |

|  |  |
| --- | --- |
|  |  |
| **What to do after an accident, first aid** |
| erhi_004 | **On-site emergency response*** Ensure your own safety, move injured persons to a safe area.
* Cool burns with water, immobilise injured limbs.
* Try to calm the victim down, notify first aiders.
* Secure the accident scene, report accident to immediate supervisor.

**If skin contact has occurred:** Immediately wash the affected skin with plenty of soap and water and apply a skin care product (cf. ‘skin protection’). Seek medical attention if skin irritation occurs.**If eye contact has occurred:** Rinse opened eye under running water or with ready-to-use solutions for several minutes (15 min.). Seek medical attention from an ophthalmologist for eye inflammation or prolonged eye irritation.**If ingestion exposure has occurred:** Elevate the victim’s upper body, allow them to breathe fresh air. Try to calm the victim down.If necessary, call the Munich poison emergency helpline at +49 89 19 240 (Bavaria). Seek medical attention.**If inhalation exposure has occurred:** Allow the victim to breathe fresh air. Keep the victim’s airway clear. Seek medical attention if feeling unwell.**If contact with clothing has occurred:** Remove contaminated clothing. Wash it thoroughly before reuse.**Note to doctors:** Read the relevant safety data sheet and safety guidelines.**Note to first aiders:** Remember to ensure your own safety.**Remain calm!****Emergency number: 112**All first aid incidents must be recorded in the accident book. |
| **Disposal procedures** |
|  | * Dispose of contaminated binding material or any leftover chemicals as special waste! Collect any soaked material (e.g. rags) in sealable and non-combustible disposal containers.
* Dispose of contaminated binding material or any leftover chemicals through the ZER waste disposal and recycling centre.

Contact for queries: ZER@uni-wuerzburg.deHeiko Richter (Waste Disposal Officer) Phone: 31-84711 or Dr. Michael Türk (Hazardous Materials Safety Officer) Phone: 31-82082 |
|  |  |

……………………………………. ……………………………………………….

Date Signature

June 2021