

SOP Formalin and Paraformaldehyde



This document describes the safety measures to be observed when working with formalin and paraformaldehyde solutions and with paraformaldehyde solid according to the SUVA guidelines for Pathology and Histology laboratories¹, the Material Safety Data Sheet from Sigma-Aldrich² and International Chemical Safety Cards³.

Contact person

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Responsibilities

It is the responsibility of each group leader to ensure that his/her collaborators are informed about the risks and proper procedures of working with hazardous chemicals.

Hazards

- Formalin and paraformaldehyde solutions are harmful if swallowed or inhaled, may cause skin and respiratory irritation and are suspected carcinogens.
- Paraformaldehyde powder is flammable.

Safety rules

- Store and work with formalin and paraformaldehyde solutions only in chemical fume hoods.
- If you use dispensing containers, choose leak-proof models (with spigot).
- Handle paraformaldehyde powder only in chemical fume hoods. To weigh paraformaldehyde powder, tare a beaker before adding the powder in the hood. Cover the beaker before returning to the balance.
- If heating paraformaldehyde solution for faster dissolution, do it only in a chemical fume hood and in a covered beaker.

- Keep solid paraformaldehyde away from water (recommended storage temperature: 4°C).

Personal protection equipment (PPE)

- Lab coat, safety glasses and nitrile gloves

Exposure

In case of eye/skin exposure:

- Rinse with eyewash for 15 minutes
- Flush exposed skin with water for 15 minutes

Cleaning

- Clean working area with soap and water.

Waste management

Formalin and paraformaldehyde solutions have to be disposed of in appropriate waste containers (white toxic waste containers), labeled accordingly.

Spilling

In case of minor spills inside the chemical hood, use absorbent pads to collect spilled solution. For spills of solid paraformaldehyde, wet the pad with methanol before covering the spill. Dispose of contaminated material as hazardous waste. Wash contaminated area with soap and water.

Incidents/Accidents

In case of exposure/injury:

- Contact first aid:

Working days 8-16:30 h: **Personalärztl. Dienst Inselspital (PAD)** ☎ 2 2038
Off-hours: **Medizinischer Notfall (MNF)** ☎ 181-7520

- Fill up the notification form (DKF web page, safety regulations)

1) Verhütung von Berufskrankheiten in pathologisch-anatomischen Instituten und histologischen Laboratorien

<http://www.suva.ch/>

2) Material Safety Data Sheets: Paraformaldehyde/Formalin

<http://www.sigmaaldrich.com/MSDS/>

3) International Chemical Safety Cards

<http://www.cdc.gov/niosh/>