

Laboratory/work area: **Wet laboratory**

Activity: **Pore etching**



Corrosive dangerous materials

(available in the laboratory: Hydrochloric acid, sulfuric acid, nitric acid, caustic soda solution)

Dangerous for humans and environment

Contact leads to heavy burns. Danger of serious health damage also at inhalation or swallow.

When mixing with water high enthalpy solutions are possible, thus danger of the heat development and spray appears.

When in contact with water or air humidity, decomposition with development of corrosive gases is possible. Often they are strongly water-endangering substances.

Safeguard and directives



Always carry a closed laboratory smock, firm and closed footwear as well as safety eyeglasses. If required use acid-proof protective gloves (e.g. type Ultranitрил 492 from nitrile). Use safety eyeglasses while handling larger quantities. Do NOT eat, smoke, drink, chew chewing gum or lay on cosmetics.

Wash regularly your hands. If mixing with water is required consider first material properties. Avoid the contact with the eyes, skin, mucous membranes and clothes. Do not slop and do not pour into canalization. Keep containers closely closed. Keep quantities present in your stoke in cooled places and light protected. A storage may take place only in predestined chemical cabinets in the wet laboratory.

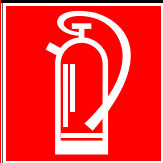
Please take into consideration when transportation of dangerous chemicals is considered: Coat the stretcher boxes and preferably with plastic. Use DURAN bottles. For UV-sensitive acids use sounded bottles.



Fire department 0 /112

Behavior in the case of danger
19222

Emergency 0 /



Clearance of dangerous situations has to take place under self-protection. Use safety eyeglasses, protective gloves made of nitrile and in case of dangerous gases and steams use semi-filtering protection masks of the warning level FFB1P2 (or high order). Advise the endangered persons. Clean, evacuate and lock the endangered region/room if necessary. The laboratory engineer is to be informed immediately. The admission of unauthorized persons must be avoided.

Leakage: Extinguish the open flames, eliminate other ignition sources, absorb the dangerous material with a liquid binder and lock them in specific, lockable containers.

Extinct the fire with carbon dioxide or dry powder systems, in case of larger fires call the fire-brigade.

In case a person is burning extinct the fire by means of a emergency shower or the next attainable fire extinguisher.

First assistant: (J. Bahr, Tel.: 6183):



Immediately remove contaminated or soaked clothes (also underclothes) and personal protection equipment:

Inhalation: Bring concerned persons to fresh air.

Skin: Moistened skin with much water and soap clean thoroughly. In case of large area burns use the emergency shower.

Eyes: Moistened eyes rinse immediately and constantly with water, with opened eyelid gap under the eye bath, until medical assistance/consulting will taking place.

Call the doctor or alarm the emergency service. Give to the doctor the safety data sheet of the injured person, operating instruction and accident detailed statement. Inform immediately the doctor about the dangerous substance.

Adequate disposal

Dispose remainders, empty bundles as special refuse (contact: Kai Rath).

Signature of the responsible person:
