

Laboratory/work area: **Wet laboratory**

Activity: **Pore etching**



Caustic soda solution/caustic potash solution 2%

NaOH, sodium hydroxide, CAS 1310-73-2; KOH, potassium hydroxide, caustic potash caustic solution, CAS 1310-58-3; colorless, odorless liquids with syrup-like to highly liquid consistency.

Dangerous for humans and environment

Causes heavy burns: Caustic solutions penetrate deeply in the tissue, causing badly curing wounds and tissue necroses. **Caustic solution burns are mostly more serious than acid burns!** In case of inhalation of aerosol/nebulas heavy burns of the respiratory system are possible. In case of swallowing heavy internal burns, danger of the stomach breakthrough and mortal danger is possible.

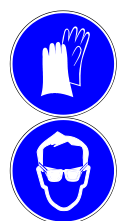
In case of eyes contact heavy cornea burns and blinding danger is possible. Violent explosion can appear in contact with acids. Aluminum, zinc, tin and their alloys are dissolved under hydrogen development. In contact with ammonium salts, ammonia develops. As a function of temperature and concentration numerous metals, plastics, glass and quartz can be attacked.

When warming up caustic solutions tend to boil and spraying danger can appear. Joint connections between moistened glass can stick together almost inseparably. Wool, leathers and polyester tissues are dissolved.

Dangerous reactions among other things also in contact with chloroform/acetone mixtures, halogen hydrocarbons, cyanides, sodium thiosulfate, phenol, oxidizable materials; other materials, see also safety data sheets received from suppliers. Avoid such solutions in waste water and collect them as special refuse.

Safeguard and directives

Work under a functional hood, and close as far as possible the front slidegate valve, always when formation of aerosols and nebulas (e.g. production of solutions, warming up solutions) or release of other substances (hydrogen, ammonia) is possible. Containers keep closed; Store apart from acids and other reactive materials. Use resistant equipment against caustic solutions. In the laboratory eye emergency showers must be available. Carry suitable work clothes, also in the summer time: use laboratory smock from 100% cotton with long sleeves, long trousers, closed footwear. Use protection equipment.




Eyes protection:	Use closely closing eye protectors (basket eyeglasses), also use optical glasses if necessary!
Hands protection :	Use protective gloves resistive to caustic solutions e.g. from Latex, nitrile or butyl rubber. With one mark gloves (e.g. for sensitive work) examine their chemical resistance first. In case of contact with the substance change the gloves.
Skin protection:	After each activity wash your hands, follow the regular skin care.

Spillage: Put on your protection equipment. With a chemical binder take it up and dispose it in a closely lockable plastic container as special refuse. After that clean the place with much water.

Note: Do not step on caustic solutions, shoes can be destroyed, danger of caustic burns.

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

	After eyes contact:	Rinse immediately for 15 min under flowing water with the open eyelid under protection of the intact eye. Immediately consult an oculist!
	After skin contact:	Rinse immediately and extensively with much water, in case of a wide contact if necessary use the emergency shower! Consult a doctor!
	After inhalation:	From aerosol/nebulas: Fresh air, immediately consult/call a doctor and/or emergency.
	After swallowing:	Drink immediately very much water. Prevent vomiting, otherwise danger of the stomach perforation can appear. Immediately call or consult a doctor.
	After cloths contact:	Remove immediately moistened clothes, rinse the skin with much water.

Adequate disposal

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

Signature of the responsible person:
