

## Storage of Potentially Water Polluting Products

Detergents or disinfectants - if released by accident to the environment or into the sewer systems in big amounts - may severely pollute the environment by killing the aquatic organisms in biological sewage plants, in rivers, lakes or even the sea. In order to prevent those accidents, containers with detergents or disinfectants have to be stable and must be safely stored under sometimes special conditions. Many countries have special laws and ordinances for environmental safety, so please consult your domestic specialists for details.

In Germany, the Water Act (Wasserhaushaltsgesetz/WHG) and the Ordinance on Plants and Facilities Handling Water Hazardous Chemicals (Anlagenverordnung/VAwS) classify chemicals, substances and preparations as well, according to their water pollution risk into three water hazard classes (WGK):

- Water hazardous class 1 (WGK 1): low hazard to waters
- Water hazardous class 2 (WGK 2): hazard to waters
- Water hazardous class 3 (WGK 3): severe hazard to waters

You will find the water hazard class in section 12 in our Material Safety Data Sheets (MSDS). There are simple rules how to classify a water hazard class for a mixture. For example: If the mixture contains at least 5 % of substances with water hazardous class 2 (WGK 2), the whole mixture is classified as water hazardous class 2 (WGK 2). The majority of surfactants as raw materials is classified as WGK 2.

The water hazard class (WGK) and the total storage volume are leading the measures which have to be taken. If the volume of stored goods exceeds certain limits the storage facility has to be provided at least by a floor resistant to chemicals and must be build like a tub in which at least 10 % of the stored water hazard goods can be held back in case of an accident. Commercially available drain tubs may be used as well. To give you a figure: For either 10 000 liters of water hazardous class 1 (WGK 1) or 1000 liters of water hazardous class 2 (WGK 2) or 100 liters of water hazardous class 3 (WGK 3) such a safety measure is normally prescribed in Germany.

Although these rules are German law, the basics are valuable in each country to prevent water pollution:

Make sure that

- the products are stored and handled in stable, closed packagings without any damage.
- the stored goods are controlled regularly by trained personal.
- large spills of the products cannot get into the environment or in the sewer system.
- you have prepared a security plan: Who does what in case of an accident?

### Special Recommendations for Simultaneous Storage of Acid Products and Products Containing Active Chlorine (Sodium hypochlorite)

If in case of an accidental spillage, acidic products (e.g. neodisher N or Z) and products containing hypochlorite (e.g. neodisher Alka 400 W) would heavily react together evolving heat and toxic chlorine gas. That is why we recommend to store those products over separate tubs.

Futhermore we recommend to store especially products containing active chlorine (as well as hydrogen peroxide or peracetic acid) in a cool, dark and well ventilated place - best in a cellar.

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