



Re: Dangerous Chemicals

It has already happened twice when vacating the laboratories for the purpose of reconstruction that a solvent was found containing such an amount of peroxides that they had precipitated in their crystalline form. When manipulating such a solvent, the risk of explosion is so high that its liquidation must be carried out in the presence of pyrotechnicians. The management of the institute will try to ensure such liquidation but it will be an act that will in no case be possible to repeat.

I, therefore, order a check of all of the supplies of chemicals and solvents that could when stored for a longer time form organic peroxides with a special focus on solvents in which peroxides are present already in crystalline form. **If such a solvent is found, I forbid that the vessel in which it is contained be touched or handled in anyway.** Announce the discovery of such vessels no later than 20th February 2009 to the director's office.

At the same time, I order that a test for peroxides be conducted with all old and long-term unused supplies of solvents capable of forming organic peroxides (primarily solvents containing an ether bond in the molecule, e.g. ethers, tetrahydrofuran, dioxane but also for example branched alcohols like isopropanol). If the peroxides are present, it is necessary to extract the peroxides from the solvents in an appropriate way and then hand them over for liquidation or repurify for further use. This work will be conducted exclusively under the guidance of the team leaders and following their instructions. The team leaders will also decide before starting work whether the solvent can be purified safely (according to the literature, already for example the opening of a vessel with a one-year-old dioxane is connected with a significant risk of explosion). If that is not the case, they will announce the discovery of such solvents by 20th February 2009 to the director's office.

I further order that any chemicals for which no future use is anticipated and which have a risk of explosion when being manipulated be discarded, especially those which can explode when bumped or rubbed (organic peroxides, some hydrazine derivatives etc.). Should you have any doubt, you can find the properties of the substances in the safety instructions. Deliver the list of these discarded chemicals to the director's office by 20th February 2009.

If dangerous substances are found in future and the non-execution of this order is proved, it will be considered as an infringement of the work duties.

Should there be any uncertainty or questions on the danger of substances, please contact P. Šimek, CSc, tel. 731 447 856.

RNDr. Zdeněk Havlas, DrSc.
Director