

You Have Safety Questions? We Have Safety Answers!

««« By STAO Safety Committee

The STAO Safety Committee welcomes enquiries, with respect to safety issues, from STAO members. Please send your questions to the Safety Committee Chair (ralph_chou@stao.org). Your questions and the STAO Safety Committee responses may be published in *Crucible*, particularly if the information is deemed of general interest to other STAO members. Anonymity will be guaranteed.

QUESTION# 36: What type of tubing is best for connecting a Bunsen burner to the gas outlet?

RESPONSE: The STAO Safety Committee recommends the use of natural red or black rubber tubing. The heavy-wall variety (3.2 mm wall and 9.5 mm ID) is preferred. This soft rubber tubing, however, requires frequent inspection as it is prone to stiffening and cracking over time.

Black neoprene tubing is too stiff and unresilient to be suitable for Bunsen burners. It is difficult to attach this to gas taps and it is so stiff that it can cause a burner to turn over, leading to an accident.

The semi-rigid, woven cover type tubing is also unsuitable. Although the special rubber connectors at each end are easy to attach to gas taps and burners, the danger of tipping during use is still present.

Plastic tubing (e.g., PVC) should not be used for connecting Bunsens since it is attacked by natural gas.

Teachers should be careful to purchase the correct tubing for use with Bunsen burners.

QUESTION #37: One of our secondary schools has purchased aspirin for their chemistry class. Our Board has banned Aspirin from our First Aid Kits to reduce liability. My concern is that the aspirin will be sitting on a shelf next to other chemicals in our prep rooms and staff will be accessing these for headaches, etc. Can you enlighten me on the type of experiments that involve aspirins and any safety precautions we should be taking in our science rooms?

RESPONSE: In the *Grade 12 Chemistry University Preparation (SCH4U)* and *College Preparation (SCH4C)* courses there is the expectation that students will have the opportunity to synthesize a common organic compound such as aspirin. It is likely that teachers will also require students to compare the purity of their aspirin with the commercial product, perhaps even different brands.

You might wish to recommend that any aspirin samples sitting on a shelf next to other chemicals in prep rooms be labeled **Laboratory Sample Only! Not For Human Consumption.**

