

Health & Safety Update

March 2018

WARWICK
THE UNIVERSITY OF WARWICK

Use of Rubber Hoses with Cryogenic Liquids

It has been noted during recent inspections that in a number of locations, rubber hoses are being used to dispense liquid cryogens.

Whilst this may appear to be a cost-effective and simple solution, it can have significant hazards associated with it. During repeated liquid transfers, the rubber becomes brittle leading to cracking, reducing the strength of the hose and ultimately leading to failure during use. However, it is clear from comments received by experienced users of cryogenic liquids, that there are situations where the use of rubber hoses is justified, as use of other materials creates additional, and in certain cases, more serious hazards.

We ask all users of liquid cryogens to consider whether their use of rubber hoses is the best practical, safe solution. Whilst in some applications, the use of proprietary dispensing equipment is to be recommended for the dispensing of liquid cryogens, there are occasions when this is not appropriate. In these situations the justification for use of other materials should be supported by a risk assessment.

Below are 2 examples of suitable tubing



Suitable equipment is available from a number of suppliers, the suppliers below are all on the University approved supplier list:

<http://www.wessingtoncryogenics.com/products/spares-accessories/>

Training on the service requirements for pressurised cryogenic Dewars

There is a requirement to ensure pressurised Dewars remain in good working order. To achieve this the equipment requires regular inspection and planned maintenance.

Wessington Cryogenics are providing a training workshop which will cover general maintenance, replacement of components, servicing and inspection of pressurised Dewars. Please contact the [Health and Safety Helpdesk](#) if you are interested in attending this course. Further details will be provided to those who register.

Useful Links

[Report all incidents and near misses](#)

[Health & Safety webpages](#)

[Need advice on health & safety](#)