Safety Services
The University of Manchester
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To Deans, HoFAs, HOSs, Directors of Research Institutes

From Dr Melanie Taylor, Head of Safety Services

Date 14 October 2013

cc Mr W Spinks, Prof N Thakker, Dr D Barker, School Safety Advisors, Safety Representatives

Reference Safety Circular 3/2013, rev 1 - including advice re neutralisation

Plastic bottles of concentrated nitric acid

Urgent action required: please

- check all stocks of concentrated nitric acid supplied in plastic bottles by Thermo Fisher Scientific (Global Chemicals)
- quarantine 2.5 litre Winchester black plastic bottles more than 3 years old with Fisher batch/lot references 11xxxxx or lower
- DO NOT handle by the neck or stopper
- Arrange for local neutralisation and disposal. Please take particular care when handling, as the weakness is associated with the neck/stopper area.

Further to the issue of Safety Circular 3/2013, I am aware that the actions required above are being undertaken and a number of schools have found such bottles (or older ones) and have contacted Fisher directly. Thank you.

I have received some clarification and had further communications with Fisher Scientific. There have been two incidents at the University, one in Feb 13 and one in Sept 13, together involving 3 bottles from the same batch. The cause(s) of the failures are still being investigated.

Fisher have provided the following statement:

"…. the latest incident has highlighted that there may be several bottles which are stored in laboratories on site which have not been removed. To avoid any potential handling issues that may lead to injury, we are keen to ensure that any bottles in your stock (from all areas, and beyond 3 years Mfg date) are removed immediately.

We therefore propose to offer free of charge replacements for any plastic concentrated Nitric acid bottles that have a Batch/Lot reference starting with 11xxxxx or lower.

As there is a potential risk to transporting the affected bottles, we would ask that they are disposed of on-site, with the appropriate care taken when opening in case the top has weakened to the point of shearing.

We anticipate that the number of bottles still in circulation will be low but wish to ensure that we act proactively as a supplier to reduce the risk to the staff and the students of Manchester University."

Please contact Fisher Scientific (evelyn.stevenson1@thermofisher.com) to arrange replacements, supplying the batch number of any bottle.

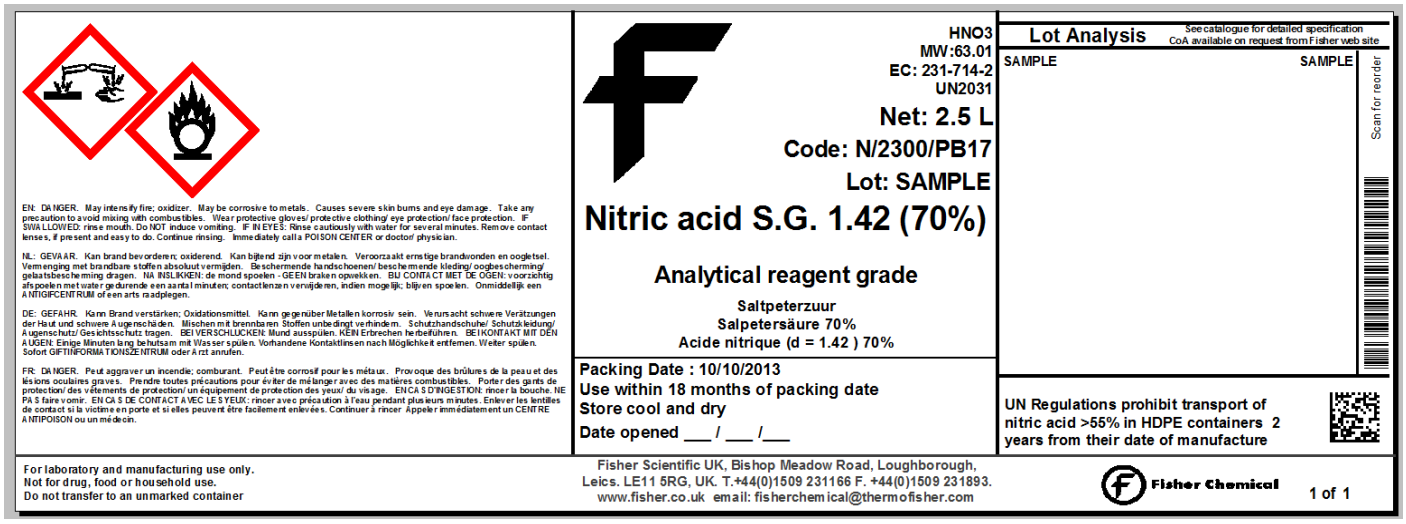
Additional information.

1. Neutralisation of conc nitric acid – advice from Elaine Armstrong, School of Chemistry is:

   In a 2 litre beaker, add 1 litre of water and add 100ml acid to the water (DO NOT add water to acid). Then treat the diluted solution by adding sodium or potassium bicarbonate or carbonate gradually (solid is fine, bicarb is more gentle) in a fume hood. There will be fizzing as CO2 is given off, and the reaction vessel may raise in temperature by a degree or two. When the acid is neutralised - no more CO2 given off, litmus paper neutral, the solutions may be disposed of down the sink with plenty of running water. Repeat as necessary.

2. The bottle labeling has changed significantly since 2012, and now includes a statement to "Use within 18 months of packing date", with the packing date included on the label (see image below). This reflects changes in transport regulations which bind Fisher and all suppliers. Since we are now aware than consumption of 2.5 litre bottles in some labs may take considerably longer than 18 months, please consider ordering in smaller volumes. Please note also that the transport regulations require conc nitric acid to be supplied in plastic, not glass bottles, so the option of changing to glass is not available.

Label supplied by Fisher, 10 October 2013.



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