

Health and Safety Services
Safety Team
The University of Manchester
Waterloo Place,
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Manchester M13 9GP

www.manchester.ac.uk

To Vice-President/Deans, Heads of Schools, as appropriate
From Dr Melanie Taylor, University Safety Advisor
Date 18th December 2006
cc Prof M Case, Dr J Brider, Dr S A Robson, Prof P Heggs,
School Safety Advisors & Safety Representatives as appropriate
Reference Circular 17/2006

Picric acid

Heads of School may already be aware that a small bottle of dehydrated picric acid (2,4,6 trinitrophenol) has been discovered in a laboratory during preparations for relocation. This substance is unstable and explosive in a dry condition, and its discovery necessitates an exceptionally careful approach to rehydration and ultimate disposal, possibly involving bomb disposal experts.

As you can appreciate, this is a situation to be avoided if at all possible, and it is entirely preventable. The properties of picric acid are well-known, and no-one should be keeping it unless a competent risk assessment can demonstrate that there is no safer alternative.

In addition to the risks of explosion, injury and damage to property, picric acid is a class 1 explosive in the dry state, and a desensitised explosive in its hydrated state (>10% water, UN 3364, >30% water, UN 1344). The Manufacture & Storage of Explosives Regulations 2005 apply, and registration is required with the Firearms Unit of Greater Manchester Police, with implementation of certain measures, inspection by the Police and payment of a fee.

Since the implications of ordering, storing and using picric acid are onerous, and the consequences of an adverse event so damaging, HOSs are asked to complete the statement below, to confirm their School's status with respect to picric acid, by **19th January 2007**.

Please note : this return should be completed after a search of all areas where chemicals are stored (eg by your school safety advisor or laboratory superintendent), if the presence of picric acid is even a possibility. If any suspect bottles are discovered, **DO NOT MOVE** them, **DO NOT ATTEMPT** to unscrew the cap, or subject the container to any kind of shock. Seek advice immediately from the Safety Office, or the University Fire Safety Officer.

For your information, known uses of picric acid (apart from its historic use as an explosive) appear to be related to staining protocols to differentiate Gram positive and negative bacteria. One of the more comprehensive and useful websites with general information is at <http://www.tc.gc.ca/canutec/en/articles/documents/picric.htm>

Dr Melanie Taylor
University Safety Advisor

Safety Circular 17/2006 - Picric acid (cont)

I confirm that the School ofhas checked all chemicals storage areas and laboratories

AND

- does not store or use picric acid and does not foresee any future storage or use of picric acid

OR

- does store and use small quantities of picric acid (insert amounts / locations, or attach a schedule of these), has risk assessments and procedures in place to ensure that stocks are checked on a regular basis, to ensure the substance remains hydrated and desensitised

Signed :
(Head of School)

Dated:

Please return completed slip to your University Safety Co-ordinator, or

University Safety Advisor,
Waterloo Place,
180 Oxford Road (top floor)