

TECHNICAL NOTE

Project: National Blood Service
Ref: RA05105-C06-S041-N01
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Re: Softalind Hand Sanitizer

Alcohol based hand sanitizers

Background

The storage of highly flammable liquids within NBS premises has been raised by Tenos as an issue within the fire risk assessment process at a number of locations. Tenos advocate that where highly flammable liquids are stored they should be stored in accordance with established industry practice and separated from oxidising materials and flammable chemicals.

Alcohol based hand sanitizers are usually stored on open shelves, in varying quantities in Team Kitting stores in Blood Centres and the Regional Stores.

Softalind Hand Sanitizer

During the assessment of Leeds Blood Centre on 14th & 15th June 2007 several bottles of Softalind Hand Sanitizer were observed in the Team Kitting stores, on open shelves, with no provision for catchment of liquids in the event of a loss of containment.

Softalind® Alcoholic Hand Sanitizer



The bottles are of varying sizes from 100ml sprays to 1 litre with pump dispensers.

The labelling on the bottles does not include any icons depicting flammability, although they are marked in the text on the bottle as being flammable with a flash point of 21- 22 °C.

The sanitizer is issued to clinical staff and available at Donations for improving hand hygiene as a contamination control measure.

The bottles should be stored away from food and drink, in a cool dry well ventilated place.

Behaviour in Fire

Dispensing two pump actions of liquid on to a Methylmethacrylate sheet and applying a lit match results in instantaneous ignition of the vapour immediately above the liquid. On ignition the small pool loses its surface tension and spreads quickly, becoming a shallower pool with a greater surface area. Combustion is rapid with a very clean burning and almost invisible flame, all the photographs below were taken during the combustion phase. The flame self extinguishes after consuming all the liquid due to the lack of other combustible materials within the immediate vicinity.





Conclusion

We consider that the storage requirements for the Softalind Hand Sanitizer currently prevailing within NBS premises are not consistent with industry practice for flammable liquids. We recommend that they be stored over or in catchment trays and kept away from sources of ignition, including radiators and electric convector heaters. They should be stored away from refreshment products, e.g. biscuits and tea and coffee supplies.

All staff issued with the sprays and/or required to use them should receive instruction and training in their use and storage and the hazards associated with them.

Consideration should be given to providing certified flammable storage cabinets in locations where large quantities of flammable sanitizers are stored.