

Attachment 4.9.4 – IED Art 59(7) Precautions

1.0 Overview

Cleaning of the production facility and equipment will be carried out using impregnated Isopropyl Alcohol (IPA) wipes and spray bottles. Solvents used in cleaning will be stored in sealed spray bottles and sealed wipes packaging in the warehouse until used. While in use they will be stored in the production area

During start-up operations IPA will be shipped to the site and stored in the warehouse. Following cleaning, spent IPA wipes and cloth wipes used to clean with IPA from spray bottles will be stored in sealed, flammable waste containers for disposal.

During start up, 100% di-methyl alcohol (DMA) and 100% di-methyl sulfoxide (DMSO) will be delivered to site in sealed 5L, 15L and 200L drums and will be stored within the designated area of the Warehouse. Unused 100% DMA and 100% DMSO will be stored in the facility.

Glacial acetic acid will be delivered to the site in sealed containers (1L bottles of acetic acid) and will be stored in the Warehouse prior to start up. These will be dispensed directly into the buffer solution in the buffer prep production room. During shut down, unused sealed containers will be stored in the facility.

Any DMA/DMSO/Acetic Acid in solution during an emergency shut down will be disposed of as waste. The solution will be discharged to the high high strength wastewater system for offsite disposal by a specialist contractor (i.e. incineration).

Solvents used in printing are stored in sealed containers in a locked cabinet within the facility. As a printing process is already operational at the facility there is an established method of delivery for printing solvents. Printing solvents are delivered in small (1 litre) containers and transferred directly by trained personnel to the lockable stores.

As with the DMA/DMSO/Acetic Acid, printing solvents within containers would be removed from site and disposed of by approved permitted / licensed waste contractors. Solvents in use within the printing process will be very small (c. 0.5kg of ink and up to 1.5kg of thinner) and will be drained down into a suitable container for disposal prior to washing of the system with water to remove residues.

There are no anticipated emissions during start up and shut down.