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Subject: Membrane Filtration & Fluorescence Experiment Safety

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Below is a comprehensive summary regarding safety information for anyone using the KrosFlo Research II TFF System and the Nanodrop Fluorescence Spectrometer.

User Safety

During this investigation, we will flow various materials through the KrosFlo membrane system. Some of these materials present certain hazards, and thus before filling the system with any fluid, operators should perform a pressure test to check for any leaks in accordance to the Manufacturer's Manual¹.

Chemical Information

We will be using stock solutions of dextran, dextran FITC, and rhodamine B. According to the material safety data sheet found on Fisher Scientific's webpage, dextran can cause eye and skin irritation². Dextran should be used in an area with proper ventilation and any spills should be cleaned up immediately². Eyes should be flushed out with water for at least 15 minutes if they come into contact with this chemical². Additionally, if the skin comes into contact with dextran, it should be flushed with water for at least 15 minutes and any contaminated clothing should be removed². When handling dextran, protective equipment should be worn. This includes goggles, lab coats, and closed toed shoes². The safety information regarding dextran FITC and rhodamine B is the same. The safety information for dextran FITC was found on the Apollo Scientific Limited webpage³ and the safety information for rhodamine B was found on the Fisher Scientific webpage⁴. If we use other chemicals in our experiment, we will research them and their safety concerns and report back.

1. "KrosFlo Research II TFF System Product Information and Operating Instructions", SpectrumLabs.com
2. <https://mypages.valdosta.edu/tauyeno/chemicals/Dextran.pdf>
3. http://www.apolloscientific.co.uk/downloads/msds/BIF4025_msds.pdf
4. https://beta-static.fishersci.com/content/dam/fishersci/en_US/documents/programs/education/regulatory-documents/sds/chemicals/chemicals-r/S25786.pdf