

Guidelines for Flame Resistant Face Coverings

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Purpose: To provide guidance to minimize the risk of someone's face covering catching on fire.

Face coverings are required at all times in research laboratories. Some experiments involving fire hazards may require the use of a flame resistant (FR) face covering. FR face coverings are commercially available, and if required, are the responsibility of the PI or supervisor to provide. It is the responsibility of the PI/Supervisor to determine if an FR face covering is required. A risk assessment should be performed.

The use of a face shield over safety glasses and a face covering should be the primary means of protection when handling pyrophoric materials outside of a controlled atmosphere glovebox. These should also be considered for experiments involving large quantities of flammable solvent (generally over 1 liter) and when working with open flames or other heat sources. If a risk assessment determines a face shield is not necessary, an FR covering is recommended. Check that the face covering can be removed quickly in an emergency.

If it is determined that a non-flame resistant face covering is sufficient, consideration should be given to the fabric the covering is made from. Note that synthetic materials (including those that wick moisture away) will burn quickly and 100% cotton is a safer choice. Check that the face covering can be removed quickly in an emergency.

Questions:

What is the difference between flame resistant and flame retardant?

Resistant is defined as a material that is inherently resistant to catching fire (self-extinguishing) and does not melt or drip when exposed directly to extreme heat.

Retardant is defined as a material that has been chemically treated to self-extinguish.

This document specifically discusses using flame resistant face coverings. Some chemicals used as flame retardants are considered toxic and it is unknown if masks will off gas hazardous or unpleasant fumes that will be breathed in by the user. Also, many flame retardants have to be reapplied after laundering.

Where can I purchase a flame resistant face covering?

The commercial availability of a face coverings is in constant flux. At the time this document was produced, these vendors stocked flame resistant face coverings. These masks are certified for arc flash protection.

- <https://www.thinknsa.com/2-layer-fr-surgical-style-face-mask>
- <https://www.totalsafety.com/insights/new-item-available-fire-resistant-face-mask/>
- <https://www.bigbill.com/products/westex-ultrasoft-flame-resistant-face-mask/>