

Preventing PPE-related skin injuries

Frequently Asked Questions

May 2020

Adequate fit and seal of filtering facepiece respirators (FFRs) – such as N95, FFP2, KN95, [or equivalent](#) respirators – with the skin are required to provide expected and effective exposure reduction. The proper seal helps ensure that the majority of inhaled air will travel through the respirator's filter material. Anything that disrupts the fit and seal of the FFR will result in a reduction in the level of protection that the wearer can achieve with the FFR.

General tips for skin protection when wearing facial personal protective equipment (PPE) include choosing a skin protection product that:

- does not interfere with the seal of the respirator and/or fit of other facial PPE
- does not transfer off your skin and onto the facial PPE
- protects skin from friction and moisture (waterproof)
- is breathable, so moisture can evaporate from your skin
- does not require removal or washing off
- has a low dermatitis potential
- Always read and follow all respirator user instructions, including conducting a use seal check every time the respirator is donned (put on)

Certain 3M skin health products may help protect the skin and not interfere with the fit of the respirator including:

- 3M™ Cavilon™ No Sting Barrier Film
- 3M™ Cavilon™ Advanced Skin Protectant

Certain 3M products, such as 3M™ Tegaderm™ Transparent Film Dressings, may be appropriate for use under respirators, but as they protrude off the skin, the respirator should be fit tested using the film to ensure good fit.

Additionally, every time an FFR is donned, the wearer must conduct a user seal check. If a successful user seal check cannot be conducted, the wearer should not use the product with the respirator.

Other dressings, such as polyurethane foams and hydrocolloids, should not be used under the area where the FFR seals to the face as they are expected to interfere with the fit of the respirator.

Frequently Asked Questions

Can I use ointments (e.g. petroleum jelly) to protect my skin under a 3M filtering facepiece respirator (FFR)?

3M does not recommend the use of petroleum jelly (also known as petrolatum), ointments, or thick creams because of the potential for interference with the seal of any of 3M's FFR's. Petroleum jelly may cause the respirator to slip around on the face.

Can I use 3M™ Cavilon™ No Sting Barrier Film to protect my skin under a 3M filtering facepiece respirator (FFR)?*

Yes, 3M™ Cavilon™ No Sting Barrier Film will help protect intact skin from moisture and friction and, when used properly, would not be expected to interfere with the fit¹ of 3M FFR.

- The 1 ml wipe or 1 ml wand applicator should be used.
- The product should be applied to clean, dry skin over any area where the FFR is likely to cause friction and/or where moisture may collect, e.g. the bridge of the nose, cheeks, tops of ears, or forehead.
- It can be used on the face, but should not be used in the eye, or on the eyelid.
- The product should be allowed to dry completely (at least 90 seconds) before the FFR is donned (put on). This allows fluid to dry on the skin and vapors to dissipate.
 - Upon application, an odor may be noted as the solvent ingredient evaporates. The odor will disappear as the product dries.
- Always read and follow all respirator user instructions, including conducting a user seal check every time the respirator is donned (put on).
- We recommend starting with a once-daily application. If the user experiences buildup of the product, decrease the frequency of application, e.g. 3 times/week.
- Cavilon No Sting Barrier Film does not require removal but can be removed with a medical grade adhesive remover.
- Every time an FFR is donned, the wearer must conduct a user seal check. If a successful user seal check cannot be conducted, the wearer should not use the product with the respirator.

If my skin is already damaged, what type of skin protection product can I use under my 3M filtering facepiece respirators (FFR)?

3M™ Cavilon™ Advanced Skin Protectant*,** can be used to help protect damaged skin, e.g. abrasions from friction or other superficial skin damage

- The 0.7 ml applicator is recommended.
- It can be used on the face, but should not be applied in or near the eye
- The product should be applied in a thin layer

- The product should be allowed to dry completely (at least 90 seconds) before the FFR is donned (put on). This allows fluid to dry on the skin and vapors to dissipate.
 - Upon application, an odor may be noted as the solvent ingredient evaporates. The odor will disappear as the product dries.
- Always read and follow all respirator user instructions, including conducting a use seal check every time the respirator is donned (put on).
- We recommend starting with a 2-3 times per week application. If the user notes buildup of the product, decrease the frequency of application, e.g. 1-2 times/week.
- Cavilon Advanced Skin Protectant does not require removal but can be removed with a medical adhesive remover containing hexamethyldisiloxane or a silicone.
- Every time an FFR is donned, the wearer must conduct a user seal check. If a successful user seal check cannot be conducted, the wearer should not use the product with the respirator.

Can I use Cavilon Advanced Skin Protectant in the larger 2.7 ml applicator?

The 0.7 ml† is preferred.

If the 2.7 ml† applicator is used, the following steps are recommended to minimize fluid dripping or pooling during application:

- Open and retain package nearby.
- Activate the applicator and allow the foam to fill.
- Press the foam applicator against the white package flap to express excess fluid.
- Then, apply as indicated.

†Single use only

Will the use of Cavilon No Sting Barrier Film or Cavilon Advanced Skin Protectant affect decontamination?

Once completely dry on the skin, 3M Cavilon No Sting Barrier Film or 3M Cavilon Advanced Skin Protectant is not expected to transfer off the skin onto FFRs. However, 3M has not tested FFRs for the presence of residual barrier film or skin protectant, or the impact that this material could have on decontamination processes.

If my skin is already damaged, can I use a dressing under 3M filtering facepiece respirators (FFR)?

3M does not recommend use of dressings such as polyurethane foams and hydrocolloids. These types of dressings can raise the respirator off the cheeks and nose and may interfere with the intended seal and exposure reduction associated with the respirator.

- If use of a dressing or bandage is desired, select the thinnest dressing available (e.g. 3M™ Tegaderm™ Transparent Film Dressing) AND perform fit testing, as well as a user seal check every time the respirator is donned (put on).

- [Fit testing](#) should be conducted following local regulatory requirements or recognized fit test protocol where fit testing is not required by local regulation.
- For those respirators with adjustable headbands, it is important to not over-tighten 3M FFR as this can interfere with the seal against the skin and increase the risk of pressure-related skin damage

Note: Dressings or film barriers can be used to help prevent or cover areas of skin damage under equipment, such as face shields, where fit and seal is not critical to the function of the protective equipment.

¹ No effect on respirator fit was observed in studies comparing the fit of filtering facepiece respirators with and without these Cavilon products applied to skin as shown in this [application guide](#). If there is any doubt or concern regarding the impact of these products on the respirator's seal, employees should be fit tested with these products applied to the skin as they would be during respirator wear

*Please refer to the product inserts (Instructions for use) for 3M™ Cavilon™ No Sting Barrier Film and/or 3M™ Cavilon™ Advanced Skin Protectant for complete Indications and Instructions for Use, Contraindications, Precautions, and Warnings.

** USA only: Federal Law (U.S.A.) restricts the device to sale by or on the order of a health care professional



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