



Instructions

Protex™ Qualitative Respirator Fit Test Kit (Bitter)

Read and understand all instructions before using this product. Open carton carefully and inspect product for damage caused by carrier. If any damage is found, report and submit claim to carrier.

The Protex™ Qualitative Respirator Fit Test Kit meets the performance criteria for fit testing tight-fitting face-piece respirators under current OSHA standards. Your test kit includes:

1. Test hood
2. Nebulizer #1 (sensitivity solution)
3. Nebulizer #2 (fit test solution)
4. Sensitivity Solution Applicator Kit
5. Fit Test Solution Applicator Kit
6. Two sets of replacement nebulizer inserts

CAUTION

It is strongly recommended the Fit Test Administrator wear a particulate respirator to protect them from prolonged exposure to the Solution.

Preparation

1. Remove the protective crushing sleeve from the storage box. (Fig.1) Remove sensitivity test solution tube and/or the fit test solution tube from the storage box. (Fig.2) Slide the sleeve all the way onto the test solution tube. (Fig. 3 and Fig. 4)



Fig. 1



Fig. 2



Fig. 3



Fig. 4

2. Using your thumb and forefinger “pinch” the applicator towards the top of the tube as shown to break the glass ampoule.

CAUTION

It is important to keep the applicator tip pointed upward when pinching the tube. This is to prevent the solution from squirting out during the pinching process. (Fig. 5)

⚠ WARNING

When pinching the applicator tubes to release the product, it is important to wear rubber or latex gloves. It is also important to “pinch” the applicator tube to break the glass ampoule as shown in Fig. 5. DO NOT BEND THE TUBE! (Fig. 6)

Correct



Fig. 5

Wrong

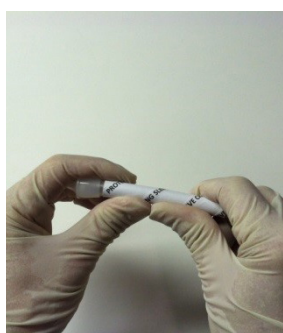


Fig. 6

3. Remove the end cap from the nebulizer. Insert the applicator tip nozzle into the opening of the nebulizer. Carefully squeeze along the applicator tube to transfer the solution from the applicator down into the nebulizer until the applicator is completely drained of the solution. (Fig. 7 and Fig. 8).

⚠ WARNING

Do not attempt to remove the tip of the applicator. It contains a porous filter which is designed to allow the solution to pass through it while filtering out the glass ampoule particles. It is also not necessary to puncture a hole or cut the tip of the applicator. The applicator tip already has the proper hole size in it to allow the solution to squirt into the nebulizer.

NOTE

It is recommended that the protective end cap be replaced back on the nebulizer until the test is ready to be performed.



Fig. 7



Fig. 8

4. Once the Applicator solution has been drained into the nebulizer, protective crushing sleeve should be returned to the storage box and empty solution tube should be safely disposed of.
5. When the subject is ready and has been instructed on the testing procedure, you are ready to begin by removing both the end cap and the vent plugs of the test solution nebulizer.

Sensitivity Test

This test is conducted to assure that the person being fit tested can detect the sweet or bitter taste of the Solution at very low levels. The sensitivity test solution is a diluted mixture of fit test solution.

The test subject should not eat, drink, or chew gum for at least 15 minutes before the test.

1. Explain the fit test procedures to the subject.
2. Have the subject don the hood without a respirator.
3. Position the hood forward so there is about six inches between the subject's face and the window. This is especially important for the fit test -- it helps to ensure even dispersion of the aerosol and allows free movement of the subject's head while wearing a respirator.
4. Instruct the subject to breathe through their mouth with tongue extended.
5. Using the sensitivity test solution nebulizer #1 inject the aerosol into the hood through the hole in the window. Inject ten squeezes of the bulb, fully collapsing and allowing the bulb to expand fully on each squeeze. The nozzle is directed away from the nose and mouth of the person being tested.
6. Ask the subject if they can detect the sweet or bitter taste of the Solution. If tasted, note the number of squeezes and proceed to the fit test (the test threshold is noted as ten regardless of the number of squeezes actually completed).
7. If the subject does not taste the sensitivity solution, inject an additional 10 full squeezes of the aerosol into the hood. Repeat with 10 more squeezes of the aerosol into the hood if still not tasted.
8. If the Solution is not tasted after 30 squeezes, the test subject is unable to taste Solution and may not perform the fit test.
9. Remove the hood and give the subject a few minutes to clear the taste from his/her mouth.

Fit Test

1. Have the test subject don and fit check the respirator per the instructions provided with the respirator.
NOTE: The fit test is to be performed using a particulate filter.
2. Have the test subject don and position the hood as before, and to breathe through their mouth.
3. Using the fit test solution nebulizer #2, inject the fit test aerosol through the hole in the hood using the same number of full bulb squeezes as required in the sensitivity test, i.e. 10, 20 or 30 squeezes.
4. To maintain an adequate concentration of aerosol during this test, inject one-half of the number of squeezes used in step #3 above, every 30 seconds.
5. Instruct the subject to indicate if they detect the sweet or bitter taste of Solution at any time during the test.
6. After the initial aerosol is injected, instruct the test subject to perform the following exercises for 60 seconds each*
 - Normal breathing.
 - Deep breathing -- breaths should be deep and regular.
 - Turning head from side to side-- movement should be complete with one turn every second.

- Nodding head up and down -- movement should be complete and made about once per second.
 - Talking, reciting the alphabet or reading aloud a prepared text. The “Rainbow Passage” (see below) is suggested.
 - Bending over- The test subject shall bend at the waist as if he/she were to touch his/her toes. Jogging in place shall be substituted for this exercise in those test environments such as shroud type QNFT or QLFT units that do not permit bending over at the waist.
 - Normal breathing.
7. If the entire test is completed without the subject detecting the sweet or bitter taste of the Solution aerosol, the test is successful and the respirator fit is deemed adequate.
 8. If the sweet or bitter taste of Solution is detected, the test has failed, a different Respirator must be tried, and the entire procedure is repeated (threshold screening and fit testing).

* In addition to the above, OSHA Standards require specific exercises for the following substances:

<u>Substance</u>	<u>Exercise</u>	<u>Regulation</u>
Asbestos	Jog in place	CFR 1910.1001
Benzene	Grimace, bend over or jog in place	CFR 1910.1028
Formaldehyde	Grimace, bend over or jog in place	CFR 1910.1048

“The Rainbow Passage”

When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. The rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch, with its path high above, and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach, his friends say he is looking for the pot of gold at the end of the rainbow.

Cleaning

Immediately after completing the test, unused solutions can be poured into any wastewater treatment system. Disinfect the inside surfaces of the hood and outer surfaces of the nebulizer then rinse the nebulizer with warm water to prevent clogging.

REPLACEMENT PARTS

<u>Product No.</u>	<u>Description</u>
SRBSS	Bitter Sensitivity Solution (Denatonium Benzoate)
SRBTS	Bitter Fit Test Solution (Denatonium Benzoate)
SRNEB	Nebulizer with Labels
SRRHOOD	Reusable Test Hood

Shawmut Corporation

208 Manley Street

West Bridgewater, MA 02379

shawmutcorp.com/safety

508-588-3300

© 2021 Shawmut LLC. All Rights Reserved.

Lit #00072/0 04/21



shawmut
Advanced Materials™