

GERSON QLFT-50 Qualitative Fit Test Apparatus

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2. Nebulizer #1 (Sensitivity)
3. Nebulizer #2 (Fit Test)
4. Two Sets Replacement Nebulizer Inserts
5. Fit Test Solution (Saccharin)
6. Sensitivity Solution {Saccharin}

B. PREPARATION

1. Connect snaps at the top on the hood so that the connections help support.
2. Pour a small amount (approximately one teaspoonful) of the Sensitivity Test Solution into the nebulizer labeled "#1 Sensitivity Test Solution".
3. Pour the same amount of Fit Test Solution in the second nebulizer labeled "#2 Fit Test Solution".

C. SENSITIVITY

This test is done to assure that the person being fit tested can detect the taste of the test solution at very low levels. The Sensitivity Test Solution is a very diluted version of the fit test solution. The test subject should not eat, drink or chew gum for 15 minutes before the test.

1. Have the test subject put on the hood without a respirator.
2. Position the hood forward so that there is about six inches between the subject's face and hood window.
3. Instruct the test subject to breathe through his mouth.
4. Using the Nebulizer #1 with the Sensitivity Test Solution, inject the aerosol into the hood through the hole in the hood window. Inject ten squeezes of the bulb, fully collapsing and allowing the bulb to expand fully on each squeeze.
5. Ask the test subject if he can detect the sweet taste of the solution. If tasted, note the number of squeezes and proceed to the fit test.
6. If not tasted, inject an additional ten squeezes of the aerosol into the hood. Repeat with ten more squeezes if necessary. Note the number of squeezes required to produce a taste response.
7. If 30 squeezes are inadequate, the test should be ended and another type of fit test must be used because the subject cannot detect the test agent.
8. Remove the test hood and give the subject a few minutes to clear the taste from his mouth.

C. FIT TEST

1. Using the subject, put on and fit check the respirator per the instructions provided with the respirator.
2. Having the subject put on and position the test hood as before and breath through his mouth.
3. Using Nebulizer #2 with the Fit Test Solution, inject the fit test aerosol using the same number of squeezes noted in the sensitivity test.
4. To maintain an adequate concentration of aerosol during this test one-half the number of squeeze used in step 3 is injected every 30 seconds.
5. After the initial aerosol is injected, ask the test subject to perform the following test exercises for 60 seconds each.
 - a. Normal breathing.
 - b. Deep breathing - breaths should be deep and regular.
 - c. Turning head from side to side - movements should be completed with one turn every second.
 - d. Nodding head up and down - movements should be completed one per second.
 - e. Talking - ask the subject to read the paragraph aloud and slowly. The "Rainbow Passage"

(see below) is suggested.

f. Normal breathing.

6. If the entire test is completed without the subject detecting the sweet taste of the aerosol, the test is successful and the respirator fit is deemed adequate.

* Certain OSHA standards require specific exercises in addition to the ones listed above.

Examples are:

Substance	Regulation	Exercise
Asbestos	CFR 1910.1001	Jogging in place
Benzene	CFR 1910.1028	Grimace Bending over or jog in place
Formaldehyde	CFR 1910.1048	Grimace Bending over or jog in place

Individual standards should be referenced for other specific exercises required.

"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 at the end of the rainbow.

OSHA

The QLFT-50 meets the performance criteria for fit testing half-mask respirators under current OSHA Standards.

CLEANING

Immediately after completing the test, pour the unused solutions back into the respective bottles. Rinse the nebulizers with warm water to prevent clogging. Wipe out the inside of the hood with a damp cloth or paper towel to remove any deposited Test Solution.

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