QUALITATIVE RESPIRATORY FIT TEST PROTOCOL

GERSON®

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Qualitative Respirator Fit Test Protocol

PURPOSE OF GERSON'S QUALITATIVE RESPIRATOR FIT TEST PROTOCOL

To provide the information to competently perform a respirator fit test, compliant with OSHA's Respiratory Protection Standard.

The information provides sufficient details to perform either a Saccharin or Bitrex qualitative respirator fit test and should be presented in conjunction with:

- Gerson's Respirator Training Presentation,
- Gerson's tutorial video "Gerson Respirator Fit Testing Training".

Respirator Fit Test Protocol

WHEN TO FIT TEST

- After being medically cleared for respirator use, http://www.examinetics.com/our-services/respirator-clearance/
- Before wearing the respirator in the workplace,
- Then at least annually.

FACTORS THAT MAY EFFECT RESPIRATOR FIT

- Facial changes – scars, teeth, dentures, eyeglasses, excessive make up, beards and other facial hair,
- Significant weight change - ± 10 pounds,
- Change of respirator size, make, model.

Respirator Fit Test Protocol

HAIR

- Adversely affects the fit of the respirator (beards, goatees and long mustaches) by preventing a proper seal between the face and the respirator's sealing surface.
- Interferes with the proper function of the respirator's inhalation and exhalation valves (beards and goatees).
- If an individual wears their hair in a pony tail, bun or other fashion, care should be taken to make sure it does not interfere with respirator strap location on the head.

Respirator Fit Test Protocol

- **REMEMBER**, if a respirator does not fit and function properly, the wearer's safety and health are at risk.
- Therefore, fit testing should not be done if it is evident that any facial hair (beard, goatee or mustache) may interfere with a respirator's sealing surface and operation.
- Anyone required to wear a respirator as part of his job should be clean-shaven before wearing the respirator.

A small mustache or other small amount facial hair that does not interfere with fit and function of the respirator is acceptable.

Respirator Fit Test Protocol

A QLFT FIT TEST IS DONE IN THREE PARTS:

- If applicable, select the size of the respirator facepiece – small, medium or large.

  Gerson has a wide selection of different models and sizes of Air Purifying Respirators. So selecting a properly fitting and comfortable respirator that will pass fit testing should not pose a problem.

- Sensitivity test – to see if you can taste Saccharin or Bitrex, **WHILE NOT WEARING A RESPIRATOR.**

- Actual fit test – a series of 7 exercises are done for 1 minute each, **WHILE WEARING A RESPIRATOR.**

A Gerson Respirator Fit Test Kit that uses either Saccharin or Bitrex provides all the equipment and supplies needed to correctly perform qualitative fit testing that is compliant with OSHA.

Respirator Sensitivity and Fit Tests

EQUIPMENT OVERVIEW

Here is the Gerson equipment that will be used to perform the Saccharin or Bitrex sensitivity and fit tests:

1. ***Sensitivity*** and ***fit test*** solutions.
   The sensitivity solution is more dilute than the fit test solution.

2. Nebulizer:
   used to generate a Saccharin or Bitrex mist for both the sensitivity and fit tests. Nebulizer should be filled with approximately 5cc of solution.

3. Fit test hood.

Respirator Sensitivity and Fit tests

PREPARATION

Since both the sensitivity test and fit test rely on the sense of taste:

Do not eat, drink or chew anything for 15 minutes prior to performing both the sensitivity test and the fit test exercises.

The respirator should be worn for at least 5 minutes before starting the fit testing sequence of exercises.

Perform a negative and positive respirator seal checks prior to performing the fit test.

Sensitivity Test

The sensitivity test is done by generating a saccharin mist into a hood *while you are not wearing a respirator*.

You should mouth breath with you tongue slightly extended.

Let the tester know when you taste the saccharin.

Using Nebulizer #1 perform the lesser of 10, 20 or 30 Nebulizer Squeezes until the sensitivity solution is tasted.

Make note of the number of nebulizer squeezes (10, 20 or 30) to taste sensitivity solution saccharin or Bitrex.

Sensitivity Test (Done without wearing a respirator)

T = Taste Threshold – Number of Nebulizer Squeezes (10, 20, or 30)

- If individual tastes Saccharin or Bitrex in 10 or fewer squeezes in taste threshold screening, **T=10**
- If individual tastes Saccharin or Bitrex anywhere between 11 and 20 squeezes in taste threshold screening, **T=20**
- If individual tastes Saccharin or Bitrex anywhere between 21 and 30 squeezes in taste threshold screening, **T=30**

Fit Test

Fit testing is done by generating a saccharin mist with the Fit Test solution into the hood *while you are wearing a respirator*.

Using Nebulizer #2 with the Fit Test Solution, inject the fit test aerosol using the same number of squeezes as required in the Sensitivity Test (steps C5 & C6 in Gerson Instruction Guide).

The saccharin is misted into the hood during each exercise.

- Respirator must be on for *at least 5 minutes before* starting the fit testing sequence of exercises.
- Again, you should mouth breath with you tongue slightly extended.
  - ➢ If you can taste the saccharin while wearing a respirator, the respirator does not fit properly – adjust respirator or try different size or model.
  - ➢ If you do not taste the saccharin, the respirator fits properly.

Exercises

- Perform each exercise for 1 minute.
- Create a mist with Nebulizer #2 (fit test solution) into hood at beginning of fit test by using the same number of squeezes to taste Saccharin or Bitrex during the sensitivity test, T (10, 20, 30). Then every 30 seconds mist Saccharin or Bitrex into hood using ½ T until the fit test is completed.

Exercises include:

- Normal Breathing
- Deep Breathing
- Turning Head Side to Side
- Moving Head Up and Down
- Talking – "Rainbow Passage"
- Bending Over or Jogging in Place
- Normal Breathing

- ***Remember**, if you taste Saccharin or Bitrex at any time, let tester know.*

Timing and Number of Nebulizer Squeezes

Time (Mins:Secs)	Test Exercise	Nebulizer Squeezes
0:00	Normal Breathing	T Squeezes
0:30		½ T Squeezes
1:00	Deep Breathing	½ T Squeezes
1:30		½ T Squeezes
2:00	Head Side to Side	½ T Squeezes
2:30		½ T Squeezes
3:00	Head Up and Down	½ T Squeezes
3:30		½ T Squeezes
4:00	Read "Rainbow Passage"	½ T Squeezes
4:30		½ T Squeezes
5:00	Bend Over/Jog	½ T Squeezes
5:30		½ T Squeezes
6:00	Normal Breathing	½ T Squeezes
6:30		½ T Squeezes
7:00	End of Test	

Normal Breathing Exercise (0:00-1:00)

At beginning of exercise put **T** (10, 20, 30) nebulizer squeezes into hood, after 30 seconds put ½ **T** (5, 10, 15) nebulizer squeezes into hood.

Deep Breathing Exercise (1:00-2:00)

At beginning of exercise put ½ **T** (5, 10, 15) nebulizer squeezes into hood, after 30 seconds put ½ **T** (5, 10, 15) nebulizer squeezes into hood.

Head Side to Side Exercise (2:00-3:00)

At beginning of exercise put ½ **T** (5, 10, 15) nebulizer squeezes into hood, after 30 seconds put ½ **T** (5, 10, 15) nebulizer squeezes into hood.

Head Up and Down Exercise (3:00-4:00)

At beginning of exercise put ½ **T** (5, 10, 15) nebulizer squeezes into hood, after 30 seconds put ½ **T** (5, 10, 15) nebulizer squeezes into hood.

Rainbow Passage (4:00-5:00)

At beginning of exercise put ½ **T** (5, 10, 15) nebulizer squeezes into hood, after 30 seconds put ½ **T** (5, 10, 15) nebulizer squeezes into hood.

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 arc, 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 reach, his friends say he is looking for the pot of gold at the end of the rainbow."

Bending Over/Jogging Exercise (5:00-6:00)

At beginning of exercise put ½ **T** (5, 10, 15) nebulizer squeezes into hood, after 30 seconds put ½ **T** (5, 10, 15) nebulizer squeezes into hood.

Normal Breathing Exercise (6:00-7:00)

At beginning of exercise put ½ **T** (5, 10, 15) nebulizer squeezes into hood, after 30 seconds put ½ **T** (5, 10, 15) nebulizer squeezes into hood.

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QUALITATIVE RESPIRATOR FIT TEST RECORD

Company Name _____ Location _____

Employee Data

Name _____ ID Number _____

Department _____ Job Title _____

Are Prescription Glasses Required? ☐ Yes ☐ No Comment _____

Does Facial Hair Interfere with Seal? ☐ Yes ☐ No Comment _____

Other PPE Worn _____

Respirator Data

Model _____ Type of Face piece: ☐ Half-Mask ☐ Full Face

Size: ☐ S ☐ M ☐ L ☐ One Size NIOSH Approval Number _____

Training

Training to include: *The use and limitations of the respirator; how to recognize medical signs and symptoms that may limit respirator use; how improper fit, use, cleaning and storage can compromise the protection provided by the respirator; how to properly put on and take off the respirator and perform respirator positive and negative seal checks.*

Fit Test

Fit Test Solution ☐ Saccharin ☐ Bitrex Sensitivity Test ☐ Pass ☐ Fail

Number of Nebulizer Squeezes to Taste Threshold ☐ **T** ☐ 10 ☐ 20 ☐ 30

Normal Breathing	☐ Pass	☐ Fail	Talking	☐ Pass	☐ Fail
Deep Breathing	☐ Pass	☐ Fail	Bend Over/Jog	☐ Pass	☐ Fail
Head Side to Side	☐ Pass	☐ Fail	Normal Breathing	☐ Pass	☐ Fail
Head Up and Down	☐ Pass	☐ Fail	Overall Fit Test	☐ Pass	☐ Fail

Fit Test Performed By _____

Employee Signature _____ *Date* _____

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To assure the highest quality and purity of products as well as user value, all manufacturing in our U.S. facility is automated, utilizing proprietary equipment of our own design and manufacture. Gerson is a prime manufacturer of its principle products, assuring that each product is produced to our unique and exacting specifications. To remain globally competitive, we also utilize overseas assembly operations, again, using Gerson-owned and designed equipment.

Whatever Gerson products you select, you can be assured that it has been engineered and manufactured to provide top Quality, Value and Performance.

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