

Lab 9 - Respirator Selection

Due Oct 18 at 7am	Points 8	Questions 8	Time Limit None
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Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	6,144 minutes	6 out of 8

⚠️ Correct answers are hidden.

Score for this quiz: 6 out of 8
Submitted Oct 17 at 5:51pm
This attempt took 6,144 minutes.

Incorrect

Question 1

0 / 1 pts

According to a July 8, 2002 interpretation letter paragraph 1910.134(g) (4) of the Respiratory Protection standard, does visible smoke trigger the requirement to wear a SCBA for interior structural firefighting?

☐ No answer text provided.

☒ Yes

☐ The standard is silent on this issue

☐ No

Question 2

1 / 1 pts

According to paragraph (g) and its sub-parts of the OSHA Respiratory Protection Standard, does the two-in / two-out rule for structural firefighting preclude performing rescue activities before an entire team has assembled?

- ☒ No
- ☐ No answer text provided.
- ☐ The standard is silent on this issue
- ☐ Yes

Question 3

1 / 1 pts


For an atmosphere containing vegetable oil mist that has an 8hr TWA PEL of 15 mg/m³ and no established IDLH value, what is the maximum use concentration for a full face air purifying respirator?

- ☐ 375 mg/m³
- ☐ 15,000 mg/m³
- ☐ 150 mg/m³
- ☒ 750 mg/m³

Question 4

1 / 1 pts

From the rocking chair assembly example, if a high-production workplace is using shellac and conducts air monitoring (see results in table below), and you are asked to select the correct respirator, what do you recommend? Use the 3M guide to assist you

<https://multimedia.3m.com/mws/media/639110O/3m-respirator-selection-guide.pdf>  <https://multimedia.3m.com/mws/media/639110O/3m-respirator-selection-guide.pdf>

Material	Units	Airborne Concentration	PEL	IDLH
Ethanol	ppm	2,264	1,000	3,300

Shellac (treat as oil)	mg/m ³	0.3	15	2,500
2-Propanol	ppm	541	400	2,000
Oxygen	%	20.67	N/A	N/A

☐ Half Face Respirator with Organic Vapor Cartridges

☐ Full Face Respirator with Organic Vapor Cartridges


☐ Half Face Respirator with Organic Vapor Cartridges with HEPA pre-filters

☒ Full Face Respirator with Organic Vapor Cartridges with HEPA pre-filters

Incorrect

Question 5

0 / 1 pts

In a workplace that uses a solvent based paint containing the materials in the table below, determine the service life for a 3M 07046 organic vapor cartridge given the work conditions in the second table below. Use the 3M service lift calculator to assist you <https://sls.3m.com/>  (<https://sls.3m.com/>)

Material	Units	Airborne Concentration	PEL	IDLH
Benzene	ppm	15	1	500
Toluene	ppm	255	200	500
o-Xylene	ppm	422	100	900
Oxygen	%	20.88	N/A	N/A

RH	Atm. Press.	Temp.	Work Rate
<65%	1 atm	68 F	Light

- ☐ One shift
- ☐ 5.33 hours
- ☒ 11 hours
- ☐ Must use supplied air respirator or SCBA

Question 6

1 / 1 pts

For an atmosphere containing Acetonitrile that has an 8hr TWA PEL of 40 ppm and an IDLH value of 137 ppm, what is the maximum use concentration for a full face powered air purifying respirator?

- ☐ 2,000 ppm
- ☐ 1,000 ppm
- ☒ <137 ppm
- ☐ 40,000 ppm

Question 7

1 / 1 pts

According to paragraph 1910.134(g) and its sub-parts, may a worker have any facial hair and still wear a respirator?

- ☐ No
- ☐ No answer text provided.
- ☒ Yes
- ☐ The standard is silent on this issue

Question 8

1 / 1 pts

When performing a respiratory protection review at your workplace, you observe an employee in a paint booth spraying a paint that is organic solvent based. The worker is using a full face cartridge respirator with cartridges that have a green band around them as in the picture below. Assuming that there is sufficient oxygen and that previous sampling indicates that a full face APR is appropriate, what is your course of action?



- ☐ Stop work and issue the worker cartridges with a black band
- ☐ Continue, the worker has selected the correct cartridge
- ☐ Allow the work to continue, but inform the supervisor to have the worker change cartridges after the next break
- ☒ Stop work and issue the worker cartridges with a black band and magenta cap

Quiz Score: **6** out of 8