

# GAS TEST ATMOSPHERES

Learner Workbook (Formative training)

**STUDENT COPY**

MSMWHS217 –  
Gas test atmospheres



This resource was developed by



## Table of Contents

<b>Contact Details</b> .....	2
<b>Training support materials</b> .....	4
<b>Application</b> .....	4
<b>Knowledge Training Tasks</b> .....	5
<b>Score for knowledge training</b> .....	17
<b>Practical Training</b> .....	18
<b>Practical training instructions</b> .....	18
<b>Practical training tasks</b> .....	19
<b>Training Summary – Competency Sign Off</b> .....	23

## 1. Prepare for gas testing



### Question 1 (PC 1.1)

You are preparing for gas testing. How do you find out the type of gas/atmosphere to be tested?



### Question 2 (PC 1.1)

What are some typical gases you might find in confined spaces?

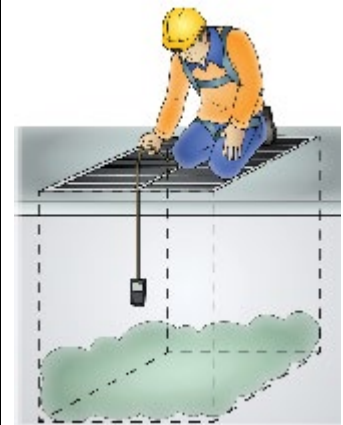


**Question 5 (PC 1.2)**

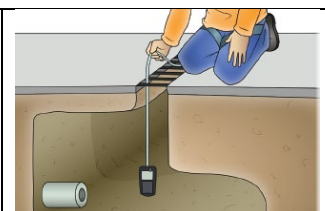
**You are preparing for gas testing. How do you calibrate the gas monitor in line with procedures?**

**Question 6 (PC 1.3)**

**You are preparing for gas testing. How do you find out the gas testing regime/sampling pattern required?**

**Question 7 (PC 1.4)**

**How are gas contaminants measured?**





**Question 8 (PC 1.4)**


**You are preparing for gas testing. How do you identify hazards from possible atmosphere contaminants?**

**Question 9 (PC 1.4)**

**What are the four dangers a gas monitor tests for?**

<b>Question 10 (PC 1.5)</b>	
<b>You are preparing for gas testing. How can you implement hazard control measures and use appropriate personal protective equipment (PPE)?</b>	
	

<b>Question 11 (PC 1.5)</b>	
<b>How does a standard operating procedure (SOP) help you to control hazards and do the job safely?</b>	
	

<b>Question 12 (PC 1.5)</b>	
<b>What does the following sentence mean, "exposure standards (time-weighted average, short-term exposure limits, peak limitation values, and examination of toxic effect at the level of a range of flammable gases)?"</b>	
	

**Question 13 (PC 1.5)**

**What are explosive limits? When might a gas be in danger of exploding?**

--

**2. Test gas**



**Question 14 (PC 2.1)**

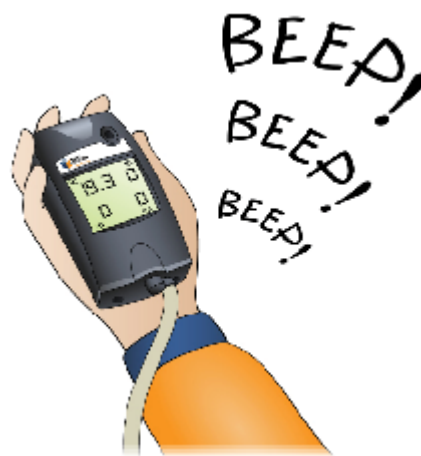
**You are using gas testing equipment. What permit might you need?**

--



**Question 15 (PC 2.1)**

**How do you use gas testing equipment to test gas as required?**



**Question 16 (PC 2.2)**

**You are using gas testing equipment. How do you interpret and report readings?**



**Question 17 (PC 2.3)**

**How do you continuously monitor gas levels?**





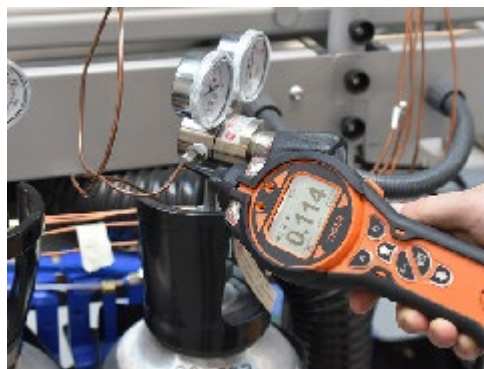
**Question 18 (PC 2.4)****What action do you need to take if readings are unacceptable?****Question 19 (PC 2.5)****You are working in an area and find there is an unacceptable gas reading. How would you communicate needed actions to be taken to appropriate people?**

**Question 22 (PC 3.2)**

**How do inspect and fault-find gas monitoring equipment according to procedures?**

**Inspecting Gas Monitoring Equipment**

**Fault-Finding Gas Monitoring Equipment**



**Question 23 (PC 3.3)**

**How would you return gas testing equipment in required condition?**



## Practical Training



The trainer must be satisfied the candidate has successfully demonstrated each element and performance criteria contained in the Unit of Competency.

It is the trainer's responsibility to decide if the candidate has competently demonstrated a skill.



## Practical training instructions



Practical training should be performed in a normal working environment where possible. However, under some circumstances may occur in a simulated work environment (refer to training conditions for further information).


The Trainer must:

- Clearly explain to the candidate what is expected of them
- Check that the candidate has been provided with the necessary tools and equipment
- Complete checklists as the candidate goes through the tasks
- Only question a candidate during a practical task if it is safe to do so
- Stop the training immediately if the candidate is doing something dangerous
- Stop the training immediately if the machine or objects are likely to be damaged
- Inform the candidate of the result of the training.

If a trainer needs to stop the training because of danger or possible damage, the candidate must be marked as not yet competent. If the training is stopped, further training would need to take place before a re-training can be undertaken.

Tasks in the training do not have to be done in isolation, they may be done as one continual task.

## Practical Task 1 – Prepare for gas testing

<p><b>Scenario</b></p> <p>You are about to enter a confined space. You need to check that it is safe. You might need to wear personal protective equipment.</p> <p>Use the checklist below to make sure you are ready.</p>	
<ul style="list-style-type: none"><li><input type="checkbox"/> Find out type of gas/atmosphere to be tested</li><li><input type="checkbox"/> Select and calibrate equipment in accordance with procedures</li><li><input type="checkbox"/> Find out gas testing regime/sampling pattern required</li><li><input type="checkbox"/> Identify hazards from possible atmosphere contaminants</li><li><input type="checkbox"/> Implement hazard control measures and use of appropriate personal protective equipment (PPE)</li></ul>	

The applicants' performance in the Practical Training was deemed to be:

Satisfactory

Not yet satisfactory

Applicant signature:

Date:

Trainer/trainer signature:

Date:

## Practical Training Task 2 – Test gas

### Scenario

You are about to enter a confined space. You have checked the atmosphere for gas and found that it is currently safe to enter. However, there is the possibility that gas levels might rise so you need to monitor the gas on an ongoing basis.

Use the checklist below to make sure you are keep safe.



- Use gas testing equipment to test gas as required
- Interpret and report readings
- Monitor gas on an ongoing basis as required
- Take required action if readings are unacceptable
- Communicate required actions to be taken to appropriate personnel

The applicants' performance in the Practical Training was deemed to be:

Satisfactory

Not yet satisfactory


Applicant signature:

Date:

Trainer/trainer signature:

Date:

### Practical Training Task 3 – Maintain gas

<p><b>Scenario</b></p> <p>You have finished the job. You need to clean and maintain the gas testing equipment ready for next time.</p> <p>Use the checklist below to make sure your equipment is properly maintained.</p>	
---	---

- Clean and maintain gas testing equipment in accordance with procedures
- Inspect and fault-find monitoring equipment in accordance with procedures
- Return gas testing equipment to required location and in required condition
- Maintain records of tests and results in accordance with procedures

The applicants' performance in the Practical Training was deemed to be:

<input type="checkbox"/> Satisfactory	<input type="checkbox"/> Not yet satisfactory
---------------------------------------	---

Applicant signature:

Date:

Trainer/trainer signature:	Date:
----------------------------	-------

## Training Summary – Competency Sign Off

Summary		Satisfactory	Not Satisfactory
Knowledge Questions		<input type="checkbox"/>	<input type="checkbox"/>
Practical Training Task 1 – Prepare for gas testing		<input type="checkbox"/>	<input type="checkbox"/>
Practical Training Task 2 – Test gas		<input type="checkbox"/>	<input type="checkbox"/>
Practical Training Task 3 – Maintain equipment		<input type="checkbox"/>	<input type="checkbox"/>
<b>Competency:</b>		Not Yet Competent <input type="checkbox"/> Date _____	Competent <input type="checkbox"/> Date _____
<b>Feedback to be given to candidate or to Workplace Supervisor</b>			
<b>Trainer / Trainer signature:</b> <b>Date:</b>		The learner has been assessed as <input type="checkbox"/> <b>Not Yet competent</b> / <input type="checkbox"/> <b>competent</b> in the elements and performance criteria, critical aspects for training, required skills and knowledge for this unit and the evidence presented is: <input type="checkbox"/> <b>Authentic</b> <input type="checkbox"/> <b>Valid</b> <input type="checkbox"/> <b>Reliable</b> <input type="checkbox"/> <b>Current</b> <input type="checkbox"/> <b>Sufficient</b>	

