

## TEST ANSWERS: MERCURY

The *BSO Plus Safety Topic* is a review designed from the BSO Plus agenda. This safety topic is your way to stay current on the safety information over the 3 years between BSO Plus and BSR.

**1. The following are characteristics of mercury: (Circle all that apply)**

- a. Solid at room temperature
- b. Strong metallic smell
- c. Heavy and dense metal
- d. Vaporizes when exposed to heat

**RATIONALE:** Mercury is a heavy, dense metal that is liquid at room temperature. The freezing point of mercury is below  $-38^{\circ}$  Celsius ( $-36^{\circ}$  Fahrenheit). The liquid is so dense that a bowling ball would float in it. Liquid mercury is quite volatile. It is odourless and will not burn however, when exposed to air, mercury metal vaporizes and can be inhaled.

**2. Symptoms of mercury exposure may include:**

- a. Chest tightness and difficulty breathing
- b. Coughing and runny nose
- c. Headache and fever
- d. All of the above

**RATIONALE:** Exposure to mercury can cause a flu-like illness 3-10 hours after exposure. Symptoms usually disappear within 48 hours after exposure.

**3. Repeated long-term exposure to mercury can result in the following: (Circle all that apply)**

- a. Kidney damage
- b. Excessive bleeding
- c. Tremors
- d. Hearing loss

**RATIONALE:** Repeated, long-term exposure to mercury can cause: kidney damage, central nervous system problems (stupor, tremors), vision and hearing changes, hearing loss, cognitive and behavioral abnormalities (including irritability, excessive shyness, a loss of confidence, nervousness, sleeplessness, memory loss), and reduction in fertility or harm to a developing fetus.

**4. Heating of mercury should be avoided because this will increase the amount of vapours that may be inhaled.**

- a. True
- b. False

**RATIONALE:** Avoid ALL unprotected contact with this product or with contaminated equipment/surfaces. Avoid generating vapors or mists. Avoid heating that will increase the amount of vapours.

**5. Maintenance work such as pipe cutting with a torch can cause exposure to mercury.**

a. True

b. False

**RATIONALE:** Mercury is a natural component of oil and gas and may be present at high concentrations in some formations. Crude streams contain various levels of mercury which stick to the sides of vessels. Concentrations of mercury in each individual stream are not always known. Doing hot work inside a vessel, like grinding or welding, can produce mercury fumes.