

Test Your Solvents Knowledge!

Answer Key

Check the boxes corresponding to the correct answer for each question. The first set of 10 correct responses submitted will receive a prize awarded at GRA's upcoming symposium, **Solvent Release Sites: Characterization, Cleanup, and Closure** (must be present to win).

1. Among the five major chlorinated solvents, which has the highest specific gravity?

- dichloromethane [methylene chloride] perchloroethylene trichloroethylene
 carbon tetrachloride methyl chloroform (1,1,1-trichloroethane)

2. Among the four major chlorinated solvents, which has the highest vapor density?

- dichloromethane [methylene chloride] perchloroethylene trichloroethylene
 carbon tetrachloride methyl chloroform (1,1,1-trichloroethane)

3. Among the five major chlorinated solvents, which has the highest vapor pressure?

- dichloromethane [methylene chloride] perchloroethylene trichloroethylene
 carbon tetrachloride methyl chloroform (1,1,1-trichloroethane)

4. Among the five major chlorinated solvents, which has the *lowest* Henry's law constant?

- dichloromethane [methylene chloride] perchloroethylene trichloroethylene
 carbon tetrachloride methyl chloroform (1,1,1-trichloroethane)

5. The two reactions shown below represent which of the following remedial technologies?



- permanganate oxidation zero-valent iron advanced oxidation
 Fenton's reaction

6. Aerobic biodegradation of methyl chloroform yields which of the following by-products?

- 1,1-dichloroethylene acetic acid 2,2,2-trichloroethanol
 1,1-dichloroethane

7. Which of the following solvents has been favored as a paint-stripper?

- Freon 113 carbon tetrachloride trichloroethylene dichloromethane

8. Which of the following solvents is the most stable (i.e. resistant to breakdown during use from attack by acids, alkali metals, oxidation, heat, etc.)

- dichloromethane [methylene chloride] perchloroethylene trichloroethylene
 carbon tetrachloride methyl chloroform (1,1,1-trichloroethane)

9. Which of the following solvents is classified as an Ozone Degrading Compound and banned under the Montreal Protocol?

- dichloromethane [methylene chloride] perchloroethylene trichloroethylene
 methyl chloroform (1,1,1-trichloroethane)

10. In 1972, the annual production of trichloroethylene for all uses was:

- 200 thousand pounds 447 thousand pounds 500 million pounds
 675 million pounds