

**1991 VINYL TRAINING
(INSTRUCTOR GUIDE)**

1. VINYL CHLORIDE IS A COLORLESS GAS WITH A FAINTLY SWEET ODOR AT HIGH CONCENTRATIONS.

TRUE: VC IS COLORLESS AND ODORLESS EXCEPT AT HIGH CONCENTRATIONS WHICH SHOULD INDICATE THAT AN EMPLOYEE COULD BE OVEREXPOSED TO VC BEFORE SMELLING VAPORS.

2. VINYL IS NOT SUSPECTED OF CAUSING CANCER.

FALSE: RESEARCH HAS INDICATED THAT REPEATED EXPOSURE OF EMPLOYEES TO HIGH LEVELS OF VAPORS HAS BEEN LINKED TO LIVER INJURY AND ANGIOSARCOMA OF THE LIVER.

3. FEDERAL LAW REQUIRES AN ANNUAL MEDICAL EXAMINATION FOR ALL EMPLOYEES INVOLVED IN VINYL CHLORIDE PRODUCTION ACTIVITIES. EMPLOYEES WHO HAVE WORKED IN THESE AREAS OVER 10 YEARS, EXAMINATION WILL BE CONDUCTED EVERY SIX MONTHS.

TRUE: A PROGRAM OF MEDICAL SURVEILLANCE HAS BEEN IMPLEMENTED FOR EACH EMPLOYEE, WITHOUT REGARD TO THE USE OF RESPIRATORS. A COPY OF THE RESULTS OF THE PHYSICIAN'S EXAMINATION IS AVAILABLE FOR EACH EMPLOYEE.

4. MOST PEOPLE CANNOT DETECT VINYL CHLORIDE BY SMELL AT CONCENTRATIONS LESS THAN 500 PPM.

TRUE: THE ODOR OF VINYL CHLORIDE IS TOO MILD TO BE USEFUL AS A WARNING OF ITS PRESENCE. MOST PERSONS CANNOT DETECT LESS THAN 500 PPM.

5. VINYL CHLORIDE IS NOT FLAMMABLE.

FALSE: VINYL CHLORIDE MUST ALWAYS BE HANDLED WHILE BEING AWARE OF ITS VOLATILITY AND FLAMMABILITY. ITS VAPORS CAN FORM HIGHLY FLAMMABLE MIXTURES WITH AIR. IT IS STATED THAT A VAPOR CLOUD EXPLOSION OF 1 LB. VC YIELDS THE EQUIVALENT OF 1 TON OF TNT.

6. NO EMPLOYEE MAY BE EXPOSED TO VINYL CHLORIDE AT CONCENTRATIONS GREATER THAN 1 PART PER MILLION (PPM) AVERAGED OVER AN 8-HOUR PERIOD WITHOUT APPROPRIATE RESPIRATORY PROTECTION.

TRUE: APPROPRIATE PROTECTION ABOVE 1 PPM IS AIRLINE MASK OR SCBA (SELF-CONTAINED BREATHING APPARATUS OR SCOTT AIRPACK). 1 PART PER MILLION IS EQUIVALENT TO 1 INCH/16 MILES, OR 1 MINUTE/2 YEARS.

7. NO EMPLOYEE MAY BE EXPOSED TO VINYL CHLORIDE AT CONCENTRATIONS GREATER THAN 5 PARTS PER MILLION (PPM) AVERAGED OVER A 15 MINUTE PERIOD WITHOUT APPROPRIATE RESPIRATORY PROTECTION.

TRUE AGAIN, APPROPRIATE PROTECTION ABOVE PERMISSIBLE EXPOSURE LIMITS IS AIRLINE MASK OR SCBA.

8. AN ANNUAL SAFETY REVIEW IS REQUIRED FOR ALL EMPLOYEES ENGAGED IN VINYL CHLORIDE PRODUCTION ACTIVITIES.

TRUE: ALL EMPLOYEES ASSOCIATED WITH VINYL CHLORIDE OPERATIONS ARE TO RECEIVE AN ANNUAL REVIEW OF THE HAZARDS AND PROTECTIVE MEASURES ASSOCIATED WITH VINYL CHLORIDE.

9. A COMFO II IS APPROPRIATE RESPIRATORY PROTECTION FOR EXPOSURE TO CONCENTRATIONS GREATER THAN THE EXPOSURE LIMITS FOR VINYL CHLORIDE.

FALSE: AGAIN, THE APPROPRIATE RESPIRATORY PROTECTION ABOVE THE EXPOSURE LIMITS FOR VC IS AIRLINE MASK OR SCBA.

10. ANGIOSARCOMA, A CANCER OF THE LIVER, IS SUSPECTED OF BEING CAUSED BY CHRONIC (LONG-TERM) OVEREXPOSURE TO VINYL CHLORIDE.

TRUE: ANGIOSARCOMA OF THE LIVER INCIDENCE RATE 1/10,000,000 - NATURAL RATE (24 CASES/YEAR IN U.S.). AS OF 1988, 38 CASES DUE TO VCM EXPOSURE IN U.S. NO KNOWN TREATMENT, LIFE EXPECTANCY ONCE DIAGNOSED IS 1-1/2 YEARS TO 6 MONTHS WITH A LATENCY PERIOD OF 15-20 YEARS.

11. ALL MEDICAL RECORDS OF EMPLOYEES ENGAGED IN VINYL CHLORIDE OPERATIONS SHALL BE MAINTAINED FOR THE DURATION OF THEIR EMPLOYMENT PLUS 20 YEARS.

TRUE: THESE RECORDS ARE AVAILABLE TO THE EMPLOYEE AT ANY TIME.

12. INFORMATION ON THE PROPERTIES, HAZARDS, AND PRECAUTIONS ASSOCIATED WITH VINYL CHLORIDE MAY BE FOUND ON A MATERIAL SAFETY DATA SHEET.

TRUE: MATERIAL SAFETY DATA SHEETS CAN BE FOUND BY USING THE MSDS BINDER AND MICRO FICHE LOCATED IN ALL CONTROL ROOMS AND MAINTENANCE SHOPS OR BY ASKING YOUR SUPERVISOR.

13. THERE ARE NO KNOWN CASES OF ANGIOSARCOMA AMONG PPG EMPLOYEES INVOLVED WITH VINYL CHLORIDE OPERATIONS AND MAINTENANCE ACTIVITIES.

TRUE: THE NUMBER OF CASES OF ASL THAT HAVE OCCURRED IN THE UNITED STATES EXPERIENCED A PEAK DURING THE PERIOD OF 1975-1979 AND HAS STEADILY DECREASED SINCE.

14. VINYL CHLORIDE IS SUCH THAT YOU CAN SMELL IT WELL BEFORE YOU ARE OVEREXPOSED.

FALSE: AGAIN, YOU CANNOT SMELL VC BEFORE YOU ARE OVEREXPOSED.

15. VINYL CHLORIDE IS A HAZARDOUS COMPOUND THAT CAN BE PRODUCED AND HANDLED SAFELY BY UNDERSTANDING THE HAZARDS AND FOLLOWING THE APPROPRIATE OPERATING PROCEDURES.

TRUE

16. THE APPROPRIATE RESPIRATORY PROTECTION FOR AN EMPLOYEE EXPOSED TO GREATER THAN 1 PART PER MILLION VINYL CHLORIDE ACCORDING TO PPG POLICY IS:

- A. NO PROTECTION NEEDED
- B. COMFO II
- C. AIRLINE MASK OR SCOTT AIRPACK (AIR-SUPPLIED PROTECTION)
- D. ESCAPE RESPIRATOR

17. BY USING THE ATTACHED MATERIAL SAFETY DATA SHEET, ONE CAN FIND THE FREEZING/MELTING POINT OF VINYL CHLORIDE AS:

- A. -100 DEG. F
- B. -245 DEG. F (FOUND IN SECTION 1, LINE 5)
- C. 75 DEG. F
- D. 115 DEG. F

18. BY USING THE ATTACHED MATERIAL SAFETY DATA SHEET, ONE CAN FIND THE EXTINGUISHING MEDIA FOR SMALL FIRES INVOLVING VINYL CHLORIDE AS:

- A. WATER
- B. HALON
- C. CO2 OR DRY CHEMICAL (FOUND IN SECTION 3, LINE 7)
- D. ETHYLENE

19. EXPOSURE TO HIGH CONCENTRATIONS OF VINYL CHLORIDE MAY RESULT IN:

- A. LUNG IRRITATION
- B. DIZZINESS
- C. UNCONSCIOUSNESS
- D. ALL THE ABOVE

20. IN WHAT STATE CAN VINYL CHLORIDE BE TYPICALLY FOUND:

- A. LIQUID
- B. GAS
- C. SOLID
- D. BOTH A & B