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VISTA

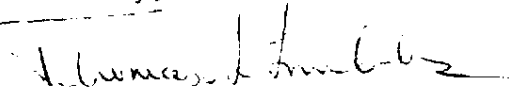
Mr. Roy Gottesman
Vinyl Institute
355 Lexington Avenue
New York, NY 10017

Dear Roy:

If you have not already seen this, I wanted to bring this Vinyl Chloride training program to your attention. It has recently been produced and is now being marketed by 3M as part of a series of "Hazard Awareness" training programs. The script is enclosed.

In general, although a Vinyl Chloride training program by name, it discusses vinyl chloride only in context of the PVC industry. The program goes a long way in reestablishing fears of VCM exposure from PVC. I'm not sure there is any action warranted, such as discussing the misconceptions with the authors, but our member companies probably should be made aware of the content of this program.

Sincerely,



Thomas G. Grumbles, C.I.H.
Director, Industrial Hygiene

ajo

Enclosure

cc Peg Donahue

VVV 000016387



Vinyl Chloride Script

VVV 000016388

R-VCS

Occupational Health & Safety Products Division/3M
3M Center, St. Paul, MN 55144

3M

"VINYL CHLORIDE"

AUDIO

1. Music up and established

Narrator: "Poly Vinyl Chloride...or PVC...It's a substance we all come in contact with every day. It's in our houses...our businesses...our vehicles...and our recreational equipment. It's used to make phonograph records...upholstery...bicycle seats...and many, many other things. In fact, products containing PVC have become a major part of our lives."

2. Music continues

Narrator: "While our daily contact with PVC is harmless, there is some concern about a component contained within PVC resins and latex and its effect on those people who work with the PVC."

3. Music under

Narrator: "Poly Vinyl Chloride is created through a chemical reaction involving the gas vinyl chloride. It is this gas...vinyl chloride...which is the cause for concern. Vinyl chloride is a colorless, and almost odorless gas known to be extremely toxic."

4. Narrator: "When vinyl chloride is polymerized...or when it is made to react with itself...polyvinyl chloride results."

5. Narrator: "This reaction may be initiated by the application of heat...the introduction of a catalyst...or the presence of light."

6. Narrator: "In the past, some workers have been exposed to extremely large amounts of vinyl chloride over their work lifetimes..."

7. Narrator: "...and a link has been established between these very high levels of exposure and a rare form of liver cancer known as angiosarcoma."

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"VINYL CHLORIDE"

AUDIO

8. Narrator: "However, the levels of exposure then were in the range of several thousand parts per million and these exposure levels are no longer permitted."
9. Narrator: "The majority of people exposed to vinyl chloride work with PVC resins and latex. These materials present no safety or health problems except when the amount of residual vinyl chloride present in the material is too high."
10. Narrator: "Since PVC resins and latex are made from vinyl chloride, occasionally there may be some small amounts of unreacted, or unpolymerized, vinyl chloride left in the resin. The amounts present in the resin are typically less than 1 part per million..."
11. Narrator: "When the PVC, in powder, pellet or latex form, is handled or processed, these small amounts of vinyl chloride gas may escape into the surrounding work area."
12. Narrator: "When the PVC resin container is opened...when transferring the material from a receiving container to processing equipment...during heating...stirring...mixing...or calendaring."
13. Narrator: "While the manufacturers of PVC resins and latex carefully control how much vinyl chloride remains in the PVC, there are some precautions which should be taken during the handling and processing of the material."
14. Narrator: "Ventilating systems...or a natural airflow...can help to carry away vinyl chloride gas that may escape from the PVC."

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"VINYL CHLORIDE"

AUDIO

15. Narrator: "The gas, vinyl chloride, is also a fire hazard. However, it is extremely rare that enough vinyl chloride would be released during handling or processing of PVC to pose a fire hazard."

16. Narrator: "It would take at least four percent or more of the gas in air to be flammable. This is equivalent to 40,000 parts per million, or an amount much, much higher than exists in most PVC resins."

17. Narrator: "The Occupational Safety and Health Administration, or OSHA, calls for specific limits of exposure which should be carefully adhered to in the workplace."

18. Narrator: "There are three exposure limits under the OSHA guidelines."

19. Narrator: "The first is called the Permissible Exposure Limit, or P.E.L. Under this limit, OSHA required that..."

20. Narrator: "...no employee be exposed to more than one part per million of vinyl chloride during an average workday."

21. Narrator: "The second level is called the Short Term Exposure Limit."

22. Narrator: "This is an exposure of five parts per million of vinyl chloride for more than 15 minutes."

23. Narrator: "Anyone working in an area where the Permissible Exposure Limit or the Short Term Exposure Limit has been exceeded is required to wear a respirator."

24. Narrator: "The third level of exposure is called the 'Action Limit'."

"VINYL CHLORIDE"

AUDIO

25. Narrator: "This occurs whenever the level of vinyl chloride reaches one-half part per million. At this level, OSHA requires that a monitoring system be used and that all workers exposed to this limit be given routine medical examinations."
26. Narrator: "All three of these levels have safety margins built in for the protection of those workers who may be affected by them."
27. Narrator: "Since vinyl chloride is a gas, there are three basic methods used to ensure the health and safety of those employees working with PVC resins."
28. Narrator: "The first is a monitoring system to detect the presence of the gas in the work area. There are many types of monitoring systems available and the employer may choose whichever type is most appropriate to the situation."
29. Narrator: "The second method used to protect from overexposure is the use of either a ventilation system to carry the gas away, or an enclosure system to keep the gas from escaping into the work area and being inhaled by the person working with the PVC."
30. Narrator: "Finally, when high concentrations of vinyl chloride are found, the use of respirators gives the employee a third method of protection."
31. Narrator: "Because vinyl chloride is a known carcinogen, all containers which carry PVC resins or latex are to be clearly marked as such."
32. Narrator: "In summary, while PVC resins or latex are not harmful in and of themselves, small amounts of vinyl chloride gas may still reside in them and be released during either handling or processing. By careful monitoring,

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"VINYL CHLORIDE"

AUDIO

32. (Continued)

the presence of the gas can be detected and the levels can be measured. The Permissible Exposure Limit, or P.E.L., of one part per million over eight hours is the first level of concern. The Short Term Exposure Limit of five parts per million over fifteen minutes is the second level of concern. If either of these levels is exceeded, respirators must be worn in the area. The 'Action Limit' of one-half part per million requires the use of a monitoring system to keep track of exposure levels. The use of ventilation or enclosure systems will normally protect the employee from overexposure in most cases."

33. Music up and established

Narrator: "Polyvinyl chloride products can be found in a great many places in our society. They have made our lives easier, more convenient and more colorful. As the use of this substance continues to grow and as more and more products are introduced into the marketplace..."

34. Music continues

Narrator: "...the processing of PVC resins and latex will continue to be a part of the work scene for more and more employees."

35. Music continues

Narrator: "While the resin itself is relatively harmless, concern will always be present for the small amounts of chloride gas present in the resin."

36. Music continues

Narrator: "However, with proper controls and monitoring systems in place, the processing of this substance should pose no long-term safety or health hazards

"VINYL CHLORIDE"

AUDIO

36.(Continued)

for employees involved in this type of work."

37. Music continues

38. Music to finale.

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Vinyl Chloride Comprehension Exercise

1. Polyvinyl chloride is safe to use. Vinyl chloride may be a health hazard. True or false. Circle the correct answer.
2. Vinyl chloride is almost odorless and is a _____ gas.
3. When polymerized vinyl chloride becomes polyvinyl chloride which may contain small amounts of _____
4. Exposure to high levels of vinyl chloride (thousands of parts per million parts of air) resulted in workers developing _____
5. Vinyl chloride exposure levels must be controlled to very low levels. OSHA regulations state that the Permissible Exposure Level average for an eight hour day is _____ ppm.
6. There is also a Short Term Exposure Limit for vinyl chloride. This is _____ ppm. for 15 minutes.
7. The vinyl chloride Action Level is _____ ppm.
8. Polyvinyl chloride (PVC) may contain low amounts of residual vinyl chloride which can be released to the work area when the PVC is _____, _____ or _____
9. Vinyl chloride is extremely flammable. The lower flammable limit is _____
10. Respirators are required if the concentration exceeds the Permissible Exposure Limit. True or false. Circle the correct answer.
11. Processing polyvinyl chloride resins or latex usually do not cause a health problem because the amount of residual vinyl chloride is very low. True or false. Circle the correct answer.
12. Controls for exposure to vinyl chloride include monitoring, enclosure and _____

Name _____
Date _____
Company _____

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