

B U L L E T I N

SUBJECT: Application for a Variance to Permit Use of 3-M and MSA Mercury Vapor Respirators

Diamond Shamrock Corporation has filed an application with OSHA for a Variance from 29 CFR 1910.134(b)(11) to permit the use of the following respirators:

- a) 3-M No. 8708 Mercury Vapor/Chlorine Respirator
- b) MSA Comfo II Respirator with Mersorb Indicating Cartridges

No air-purifying or chemical cartridge respirators for mercury vapor have been certified. However, tests performed by the manufacturer have shown these respirators to be effective.

If you wish to see a copy of the application or a copy of the respirator manufacturer's data, please make your request through your supervisor.

Also, you may request a hearing in regard to this application if you object to the variance being requested. This request must be filed by writing to:

Assistant Secretary for Occupational Safety & Health
U. S. Department of Labor
Washington, D. C. 20210

Is the #8708 recommended for chlorine environments only?

No. The #8708 is only recommended for use where mercury and chlorine are found together.

Is the #8708 NIOSH/MSHA approved?

No, there are no approved air-purifying respirators for protection against mercury vapor since NIOSH does not have a test schedule for such a respirator. Usage of the #8708 is controlled by OSHA as discussed on page 18 of OSHA Program Directive #300-9.

"Unapproved respirators can be used only if NIOSH/MSHA does not have a test schedule for the specific air contaminant, such as mercury vapor and the combination of acid vapor and high efficiency particulate filter. The employer has to justify the intended purposes of such devices and demonstrate that the respirator can provide the protection required."

What data exists to support the #8708 usage?

3M tested the #8708 extensively in the laboratory against mercury vapor and also against chlorine. The results of these tests determined our recommendation for one day use in up to 0.5 mg/m³ mercury vapor alone or in combination with up to 10 ppm chlorine. Test results are available upon written request.

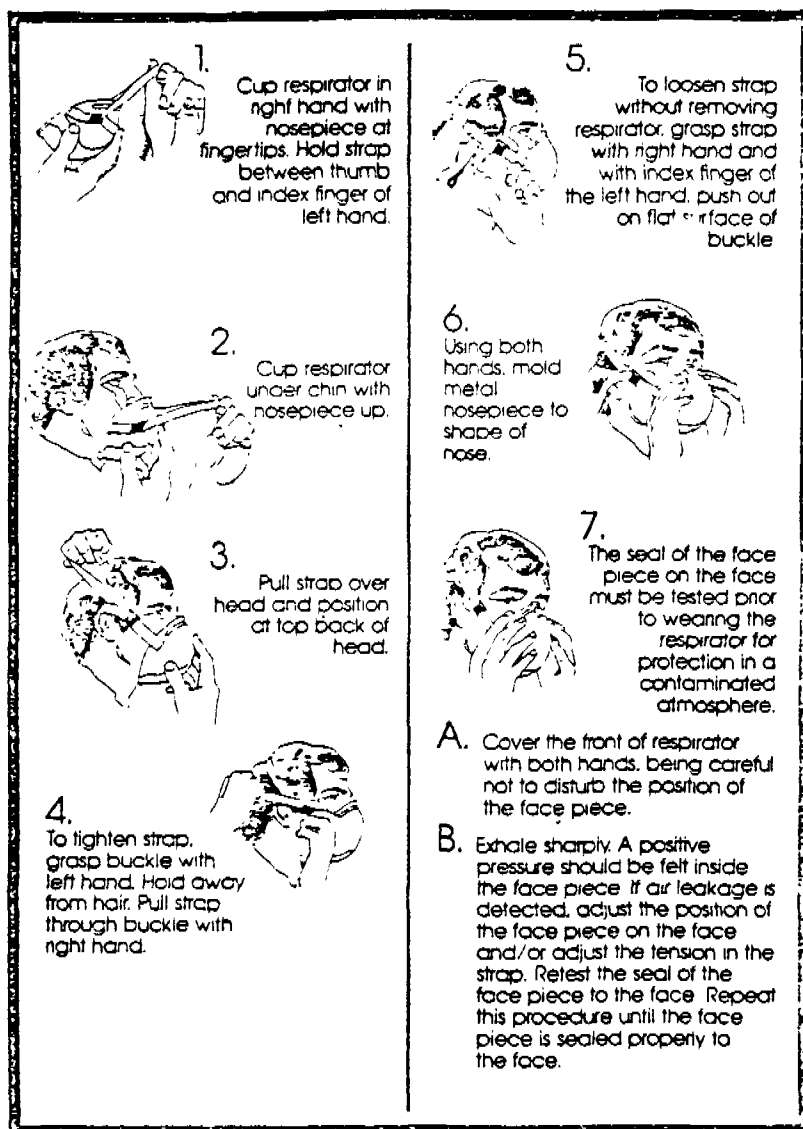
Is the #8708 approved for dusts?

No, the #8708 does not have any NIOSH/MSHA approval. When tested for particulate filtering, the #8708 did prove to be 90% effective against particles with mean diameter of 0.4-0.6 microns.

How does the #8708 differ from the #8707?

While both respirators are recommended for one shift protection against mercury vapor, the #8708 is for use up to 0.5 mg/m³ while the #8707 limitation is 0.25 mg/m³. Secondly, only #8708 is recommended for use in combination mercury vapor and chlorine atmospheres.

#8708 MERCURY VAPOR/CHLORINE RESPIRATOR FITTING INSTRUCTIONS



USE LIMITATION

1. Do not use when concentration of Hg vapor exceeds 10 TLV's (1 TLV = 0.05 mg/m³).
2. The respirator is not to be used in excess of one full 8 hour shift in atmospheres containing mercury vapor. It is to be used for one 8 hour shift or less if chlorine penetration is detected by smell or taste.
3. Use only in adequately ventilated areas containing sufficient oxygen to support life (19.5% O₂).
4. Unused respirators must be stored in the sealed bag supplied and away from areas containing Hg vapor or chlorine.
5. Breathing zone exposures should be routinely monitored to establish that chlorine and mercury levels do not exceed recommended levels for use.
6. It is recommended that you leave the area immediately if:
 - a) breathing becomes difficult,
 - b) dizziness or other distress occurs, or
 - c) penetration of chlorine is detected.

If you have any doubts about the applicability of the 3M Brand Mercury Vapor/Chlorine Respirator #8708 to your job situation, it is recommended that you consult an industrial hygienist or call toll free, 3M Company, Occupational Health and Safety Products Division, Technical Service, 1-800-328-1300. Within state of Minnesota call collect, 612-733-8029.

DISPOSAL OF USED RESPIRATORS

Care should always be used in disposing of the #8708 Mercury Vapor/Chlorine Respirator. It should be disposed of only in containers used for disposal of mercury contaminated articles. **Never dispose of respirator with waste that is to be incinerated.**

CAUTION

This respirator is designed to be disposed of after each shift. Mercury Vapor has no odor or taste, thus its presence cannot be detected by smell or taste. Therefore, to assure protection, a new respirator must be used each day.

IMPORTANT NOTICE TO PURCHASER

THE FOLLOWING WARRANTY IS MADE IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PURPOSE: 3M CH&SP products sold will meet the physical standards and properties set forth in the applicable product specification data sheets issued by 3M. 3M's only obligation under this warranty shall be to replace such quantity of 3M Safety Products proved to be defectively manufactured by failing to meet the aforementioned specification data sheets, and to be responsible for any third party personal injuries directly caused by said defects. Except as provided above, 3M shall not be liable or responsible for any loss, damage, or liability, direct, indirect, incidental, special or consequential, arising out of the sale, use or misuse of, or the inability to use products by the user.

ANOTHER STEP TOWARDS BETTER OCCUPATIONAL HEALTH AND SAFETY

Occupational Health & Safety Products Division



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