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Nuclear Biological & Chemical Protective Gear from Commercial Suppliers

By Jim Jones

For obvious reasons there has been a great deal of interest in chemical, biological and nuclear (fallout) protection in recent months. What was considered paranoid “survivalist” thinking is now normal “main stream” interests. Surplus stores have sold out virtually every NBC suit and gas mask they had. Time Magazine publishes evaluations of gasmasks and antibiotics. With most of the good military surplus NBC gear gone, civilians will need to turn to industrial safety suppliers for quality equipment. These suppliers are giving first priority to orders from the military and government agencies before filling privet orders. Commercial gear is of excellent quality to meet OSHA and NIOSH standards but it is also more expensive than surplus and not designed for camouflage or combat. Before recommending some specific items and sources it is important to understand the hazards and limitations related to this equipment.

- No filter respirator will save you if there is insufficient oxygen to keep you alive. You cannot survive in a smoke filled building or one with high concentrations of carbon monoxide.
- The filter will do no good if your mask is not sealing all around your face. Read the instructions and practice proper fitting and seal testing. Put on the mask and then pour some vinegar. Move your head and talk. If you cannot smell or taste the vinegar you probably have a good fit. Sorry, if you have a beard it will have to go.
- Half masks are cheaper and easier to carry but do not protect eyes (goggles help) and skin against many chemical agents so full facemask are preferred.
- Dust mask are better than nothing and you can always have them with you. They are not designed for chemical and biological agents but are good for keeping hazardous dust, fallout, soot and splashed biological contaminants (blood, etc.) out of your lungs and GI tract.
- Filter masks can protect you against radioactive dust and chemical agents but offer only limited protection from biological agents. Only the costly positive pressure HEPA filter systems are effective against these extremely small contaminates.
- In addition to respiratory protection, you must protect your skin and hair from contamination. A full covering suit, rubber gloves and foot covering is needed. In an emergency you can use rain suits, rain ponchos or even plastic trash bags to improvise some protection. Obviously military or commercial NBC suits are preferred.
- You can't live in masks and suit for very long. You will freeze or cook in your own perspiration in a few hours. Do what you need to do (rescue, secure) and get out of the contaminated area as fast as possible.

- After you are out of the contaminated area you must decontaminate every inch of your mask, protective suit and any exposed skin. A clean (inside) garden sprayer is good for spraying soap solution (for chemicals) or bleach solution (for biological) to decontaminate. Lastly you must peel out of your protection without touching it and step into a clean area.
- Keep in mind that virtually all biological agents and a few chemical agents are undetectable without sophisticated equipment. To be effective you must 1) know the hazard is there and 2) have your protection with you.

Knowing the entire above here are some specific NBC items and sources you may wish to contact.

Sources:

- Lab Safety Supply, 401 S. Wright Rd., Janesville, WI 53546, 608-754-2345
- Direct Safety Co., P.O. Box 27648, Tempe, AZ 85285, 88-528-7405
- Chemical and Biological Defense Information Analysis Center, www.cbiac.apgea.army.mil/

Protective Equipment:

- A compact dust mask that offers some protection from chemical fumes is the 3M #8576, P65 particulate/acid gas respirator at \$37.00 for a box of ten
- Half face respirators are much better but not so handy. The Wilson, Triple Seal half mask respirator with appropriate filters* costs \$31.25 each
- The much preferred full-face version of the above respirator comes in sizes S, M, L. costs \$130.35
- Recommended filters for anticipated chemical agents would be the Unisorb or other "multi gas" chemical cartridges Gto8 at 10 for \$54.90 combined with the \$2.10 prefilter retainer and N95 dust filter at 20 for \$22.50
- Dupont Tychem SL hooded coveralls with boots and hood in sizes M – 3X is the recommended body protection at \$19.35 each.
- There is a wide range of available gloves in all sizes. Recommended brands are "Sol-Vex" nitrile rubber, "Silver Shield", and "Barricade"
- The very best protection against both chemicals and biological agents is the SABRE respirator system that pulls air through chemical and HEPA filters with a battery powered blower unit. These cost around \$800.00 each.

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