

## Level A Suit

Kappler<sup>®</sup>/Dupont<sup>®</sup> Tychem<sup>®</sup> Responder<sup>®</sup>

March 2010

NOTE: Guides are to be used by trained personnel only and DO NOT replace the manufacturer's operations or technical manuals. These guides were developed by field personnel for utilization by EPA and their contractors and are helpful in quick start-up and operations. Various limitations have been identified through the experience of the development group. Different makes, models, and updates to this equipment may change the limitations. It is recommended that calibration, maintenance, and use be recorded in a log book. If you have any changes or revisions please email one of the following: [stevenson.peter@epa.gov](mailto:stevenson.peter@epa.gov), [boykin.michael@epa.gov](mailto:boykin.michael@epa.gov), [chong.margaret@epa.gov](mailto:chong.margaret@epa.gov), [kroone.janice@epa.gov](mailto:kroone.janice@epa.gov), [zintak.leonard@epa.gov](mailto:zintak.leonard@epa.gov).



### Uses:

A Level A suit is to be utilized when particular hazards pose a threat. A Level A suit is to be used when there is a possibility of high concentrations of atmospheric vapors, gases or particulates. Performing activities that involve the potential for splash, immersion, or exposure to unexpected vapors, gases or particulate matter. The suit is to be used when the potential exists for contact with substances that destroy skin. It can also be used if operations are to be conducted in confined, poorly ventilated spaces until the absence of hazards requiring Level A protection is demonstrated.

### Limitations:

- Responder<sup>®</sup> suits have demonstrated some sensitivity (breakthrough) to the following chemicals:
  - Bromine Liquid - 18 minutes
  - Chloro Acetic Acid (99%, 65°C) - 60 minutes
  - Nitrogen Tetraoxide - 220 minutes
  - Sulfur Trioxide (60°C) - 90 minutes
  - Thionyl Chloride - 45 minutes
  - Tribromo Phenol (110°C) - >15 minutes
- Kappler recommends not using "chemical" counteragents in decontamination, but to use detergents instead. A soft bristle brush should be used, as hard bristles may scratch or damage the film.
- Responder<sup>®</sup> suits are not designed to be repaired. The suit is for limited-use activities, inexpensive, and being a film laminate, is not designed for long-term repeated wear.
- Responder<sup>®</sup> suits may sometimes be used up to 5 to 7 times, depending on the level of contamination, toxicity of the chemical, effectiveness of decontamination, and the physical condition of the suit. Before considering reuse, all gas-tight suits should pass a visual inspection and a pressure test.
- Temperatures in excess of 115°F (46°C) will result in first-degree burns.

**CAUTION: Do not use for fire protection.** Avoid open flame or intense heat.



### **Quick Start-up and Operation:**

Inspection to be Performed Before and After Each Use:

- Determine that the Level A suit has been pressure tested within the last year.
- Determine that the Level A suit is correct for the task at hand.
- Visually inspect the equipment for imperfect seams, nonuniform coatings, tears, and malfunctioning closures.
- Hold up to the light and check for pinholes.
- Flex the equipment and observe for cracks and other signs of shelf deterioration (white areas on suit indicate worn protective layer)
- Look for wear or abrasion that may let a chemical penetrate the suit.
- Check the face shield for cracks or deep scratches.
- Check that the zipper has been lubricated and functions properly.
- Check the exhaust valves for damage or obstruction.

### **Suiting Up:**

- Remove and safeguard your personal items.
- Drink fluids.
- Have vital signs taken.
- Gather all equipment to be donned.
- Attend entry briefing.
- Gather entry equipment/sampling supplies.
- Remove excess clothing, work boots.
- Stay seated, put pants on and buckle belt around waist, get help.
- Be methodical, dress in stages.
- Apply anti-fog to face screen.
- Don SCBA and turn bottle air valve on.
- Fit test mask, connect regulator to mask.
- Connect and check radio, hand signals.
- Seal up Level A suit.
- Pick up entry equipment/sampling supplies.
- Radio site entry control that you are entering the site.
- Follow all EPA site entry and health and safety procedures.



**NOTE: Properly dispose of any Level A protective clothing that has any of the defects listed above.**

### **Annual Pressure Testing:**

- An acceptance test shall be performed before suit enters service.
- An annual pressure test shall be performed and a record (date and initials of tester) will be attached to the suit/suit bag in a conspicuous place. See Level A Suit Pressure Test Kit

EOG/QSG for testing your Kappler Responder<sup>®</sup> Level A Suit in accordance with ASTM F 1052 and as specified by OSHA (29 CFR 1916.120).

- Check the Du Pont Suit Smart program on the Du Pont web site: <http://www.personalprotection.dupont.com> or call the 24-Hour Emergency Line at 1-800-797-5907 to determine if the suit is appropriate for the chemicals potentially at the site. Pressure Test Kit

### **Shipping Requirements:**

No special shipping instructions are required for the Kappler Responder<sup>®</sup> Level A suit. Be careful to take extra measures to protect the Level A suit from possible damages caused in transport or excess heat.

### **Contact Information (Technical Support):**

DuPont recently acquired Kappler Safety.

<http://www.personalprotection.dupont.com>

Du Pont Suit Smart  
115 Grimes Drive  
Guntersville, Al 35976

Customer Service:

P.O. Box 490

Telephone: (800) 633-2410

and (800) 441-7515

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