iEvac®
SMOKE/FIRE HOOD

The New Cost-Effective American-Certified Protection!

The iEvac® Protects against:

- **Carbon Monoxide**
- **Hydrogen Sulfide**
- **Additional Toxic Gases:** sarin, smoke, hydrogen cyanide, chlorine, ammonia, sulfur dioxide, CS, CN, and more
- **Harmful Particulates:** soot, fumes, aerosols, and others
  - Contains a HEPA P100 filter that removes sub-micron particles such as anthrax, smallpox, and radioactive particles
- **Life-Threatening Physical Hazards:** flammability and radiant heat

DESIGNATED
U.S. DEPARTMENT OF HOMELAND SECURITY
SAFETY ACT
www.safetyact.gov
SCIENCE AND TECHNOLOGY
™

Qualified Anti-Terrorism Technology
U.S. Department of Homeland Security

National Institute for Occupational Safety and Health
NIOSH

Approval #
TC-14G-0311
42 CFR 84
CS/CN/P100

SEI Certified to American National Standard

ELMRIDGE PROTECTION

www.ElmridgeProtection.com
561.244.8337

iEvac®
SMOKE/FIRE HOOD

TESTED BY

NIOSH Intertek assay technology

US Army Research, Development & Engineering Command
Edgewood Chemical Biological Center

Tested and Certified by NIOSH in accordance with 42 CFR 84

Function	Test Condition	Requirement	Result
Overall protection factor	Full facepiece fit test with full range of face sizes performing standard NIOSH exercises	No odor detected while in atmosphere containing isoamyl acetate vapor at 500 ppm	Pass
Carbon dioxide build-up	Breathing machine	< 2%	1.5%
CS gas	As received, preconditioned, tested at low, standard and high humidity	> 8 hours	> 8 hours
CN gas	As received, preconditioned, tested at low, standard and high humidity	> 8 hours	> 8 hours
Dioctyl phthalate (DOP)	Particulate aerosol 0.185 micron	> 99.97 %	> 99.97%

Performance and Protection Capability Tests beyond the Requirements of American Standard and NIOSH

Tested by US Army Research, Development and Engineering Command, Edgewood Chemical Biological Center

Function	Test Condition	Requirement	Result
Overall protection factor	Test subjects performing standard NIOSH exercises inside the fit test chamber at Edgewood	2,000	> 90,000
Protection factor inside the hood but outside the nose cup	Test subjects performing standard NIOSH exercises inside the fit test chamber at Edgewood	150	> 8,000

Tested and Certified to American Standard: Physical Properties

Challenge	Test Condition	Duration	Result
Radiant heat	Within 9.5 inches (240 mm) of heating panel between 980 and 1700°F (527 and 927°C)	15 secs repeated	pass
Flammability	9.8 inches (250 mm) away from a burner flame of 1475°F (800°C)	One rotation	pass
Molten drip	Molten polypropylene rod drip	Each location	pass
Inhalation temperature	CO at 77°F (25°C) and 87%RH	15 mins	pass
Fogging	Read eye chart from 20 feet (6.1 meters) at the 20/100 line	5 mins	pass
Field of vision	Apertometer headform	viewing	pass
Light transmission	Haze of vision area	left and right	pass
Temperature variation	32°F (0°C) followed by 158°F (70°C)	24 hours each	pass
Pressure variation	Ambient to 4.4 psi (300 mbar) below	1,000 cycles	pass
Vibration	0.75 inches (19 mm) at 100 rpm	10,000 cycles	pass
Corrosion	Salt spray at 95°F (35°C) then 72°F (22°C) at 50% RH	48 hours each	pass
Puncture and tear	3.5 oz (100 grams) striker dropped from 4 inches (100 mm)	Ready to use	pass
Water leakage	Immerse in water at 160°F (70°C) to depth of 24 inches	5 mins	pass

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Tested and Certified to American Standard: Hood Performance Tests

Function	Test Condition	Duration	Requirement	Result
Speed of donning	Remove from pack and wear properly	Less than 30 secs	< 30 secs	pass
Total inward leakage	Test subjects performing standard exercises	2.5 mins	< 2%	<0.01%
Ocular leakage	Test subjects performing standard exercises	2.5 mins	< 20%	<0.1%
Carbon dioxide build-up	Breathing machine	25 cycles per min	< 2.5%	< 1.7%
Breathing resistance	Probed headform with breathing machine	30 cycles	-3.2 in (-81.5 mm) +1.2 in (+30.6 mm)	pass
Soot particulate	Inhalation breathing resistance with 200 mg/m^3 soot	5 mins	< 8 in (< 204 mm)	pass
Soot particulate	Exhalation breathing resistance with 200 mg/m^3 soot	5 mins	< 6 in (< 153 mm)	pass

Tested and Certified to American Standard: Gas and Particulate Tests

Challenge	Symbol	Type	Concentration ppm	Requirement	Result
Carbon monoxide	CO	Hazardous combustion by-product	3,000	15 mins	> 32 mins
Carbon monoxide	CO	Hazardous combustion by-product	5,000	15 mins	> 46 mins
Hydrogen cyanide	HCN	Hazardous combustion by-product	400	15 mins	> 90 mins
Hydrogen chloride	HCl	Acid gas toxic industrial chemical	1,000	15 mins	> 70 mins
Sulfur dioxide	SO_2	Acid gas toxic industrial chemical	100	15 mins	> 70 mins
Cyclohexane	C_6H_{12}	Organic vapor toxic industrial chemical	500	15 mins	> 41 mins
Acrolein	C_3H_4O	Organic vapor toxic industrial chemical	100	15 mins	> 65 mins
Dioctyl phthalate	DOP	Particulate aerosol 0.185 micron	200 mg/m^3	>95%	> 99.996%

Additional Gas and Particulate Tests

Challenge	Symbol	Type	Concentration ppm	Requirement	Result
Carbon monoxide	CO	Hazardous combustion by-product	10,000	15 mins	> 30 mins
Dioctyl phthalate	DOP	HEPA filtration test for particulates and aerosols	200 mg/m^3	> 99.97%	> 99.996%
Ammonia	NH_3	Toxic industrial gas	1,250	15 mins	> 60 mins
Formaldehyde	HCHO	Toxic industrial gas	250	15 mins	> 60 mins
Phosgene	$COCl_2$	Toxic industrial gas	125	15 mins	> 60 mins
Phosphine	PH_3	Toxic industrial gas	150	15 mins	> 60 mins
Chlorine	Cl_2	Toxic industrial gas	200	15 mins	> 60 mins
DMMP	DMMP	Simulant for sarin nerve gas	1,000	15 mins	> 60 mins
Hydrogen sulfide	H_2S	Acid gas toxic industrial chemical	1,000	15 mins	> 600 mins
Hydrogen sulfide	H_2S	Acid gas toxic industrial chemical	5,000	15 mins	> 85 mins

NIOSH Approval # TC-14G-0311 42 CFR 84 CS/CN/P100
Certified to American National Standard
for Air-Purifying Respiratory Protective Smoke Escape Devices
Manufactured to ISO 9001:2008 Standard

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National Institute for Occupational Safety and Health NIOSH
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42 CFR 84
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Certified to American National Standard

- Maintenance-free
- At 9.5 in. (240mm) can withstand up to 1700°F (927°C) in radiant heat
- Twin filters for easier breathing
- Improved field of view compared with single filter in front
- Hood is a clear material resulting in an unobstructed field of view
- High visibility reflective strips for easy recognition
- Highest level of protection maintained by silicone neck dam
- Protects lungs, head, eyes, and face
- Can be used with eyeglasses, beards, and long hair
- Packaged in puncture- and- water-proof laminate barrier
- Quick and easy donning
- Latex-free
- One universal size

Weight of iEvac® in ready-to-use configuration:	1.4 lbs. – 635 grams
Size of iEvac® folded in vacuum-sealed foil bag:	Height – 5 1/2 in (14 cm) Length – 5 1/2 in (14 cm) Width – 4 3/4 in (12 cm)
Shelf life:	5 1/2 years from date of manufacture

For one-time use only. Read instructions before using.

Ordering info:
iEvac® Smoke/Fire Hood item # EBP-900
iEvac® Demo Hood item # EBP-200
iEvac® Nylon Carry-pouch item # EBP-250
iEvac® Single Wall-mounting Rack item # EBP-305
iEvac® Double Wall-mounting Rack item # EBP-306
iEvac® Wall-mounting Cabinet (12-unit) with & without alarm item # EBP- #308 & #309

iEvac® vacuum-sealed in foil bag

FEMA Responder Knowledge Base

NFPA® MEMBER

DEPARTMENT OF HEALTH & HUMAN SERVICES · USA

The iEvac® is listed on DHS's Authorized Equipment List & Standardized Equipment List

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Distributed By:

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