

## Decontamination and disposal

After exposure in a CBRN environment, the respirator and the user must be decontaminated in order to prevent contamination of clean areas, and to prevent contamination of and injury to the user and other personnel.

Decontamination procedures should be developed as part of the organisation's respirator program and should be appropriate to the hazards involved.

Filters are for single use only. They should be disposed of after use, in accordance with state and local guidelines for hazardous waste materials.

## Storage

Store filters in their sealed packaging in ambient conditions between –20 and +55°C and less than 90% relative humidity. To optimise storage life, limit maximum storage temperature to +30 °C.

Maximum shelf life 10 years. Expiry date is marked on filter and packaging.



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## CBRN Filter 125-CBRN1-CE

For the SE40 CBRN breath-responsive respirator

## User Instructions

100472-01 A

The S.E.A. 125-CBRN1-CE is a combination gas/particle filter intended for CBRN (chemical, biological, radiological and nuclear) applications including rescue, evacuation, escape, hazard containment and decontamination, and similar activities by emergency responders in areas contaminated by CBRN agents.

### Warning

Improper use of CBRN respirators may result in personal injury or death. CBRN respirators must be used only by suitably trained personnel and in accordance with the user instructions.

### Classification and protection

The 125-CBRN1-CE is approved for use with the following respirators:

Respirator	Approved to	Device type	Filter classification
S.E.A. SE40 CBRN PAPR	BS 8468-4:2008	Type 2A CBRN PAPR	Class 90 TM3P SL
S.E.A. FP-C CBRN RPD	BS 8468-2:2006	Type A CBRN RPD	Class 15 P3 SL

"Class 90" and "Class 15" indicate that the gas filter service life exceeds 90 minutes and 15 minutes respectively under laboratory conditions. These values may not be indicative of service life under real use conditions, which may be affected by:

- the concentration of contaminants in the atmosphere
- the ambient temperature and humidity
- the level of physical activity of the wearer
- storage of the filter in adverse conditions

The filter is approved to BS 8468 for use with the following components:

Component	BS 8468-2:2006	BS 8468-4:2008
Facepiece	FP-C	RF3-FP-C
Demand valve		DV3-C
Fan unit		SE40
Breathing hose		H20
Harness		Waist belt WB1 or Backpack BP2
Breathing hose cover		HC-TF
Exhalation valves shield		EVS
Prefilter	221 (optional)	221 (optional)
Prefilter holder	PFH-T (optional)	PFH-T (optional)

The filter protects against 139 agents recognised as CBRN threats, classified into seven families. The filter has been tested against 11 test representative agents (TRAs) that together represent all of these families, as per the table below.

Family	Number of agents	Test Representative Agent (TRA)
Organic vapours (including chemical warfare agents)	61	Cyclohexane
Acid gases	32	Cyanogen chloride, Hydrogen cyanide, Hydrogen sulfide, Phosgene, Sulfur dioxide
Base gases	4	Ammonia
Hydrides	4	Phosphine
Nitrogen oxides	5	Nitrogen dioxide
Formaldehyde	1	Formaldehyde
Particulates – biological, radiological/nuclear <sup>1</sup> , particulate chemicals	32	Diocetyl phthalate (DOP)

<sup>1</sup> The filter captures radioactive particles. It does not shield against or filter out radiation.

## Cautions and limitations

- Do not use in atmospheres containing less than 19.5% oxygen, or in confined spaces where oxygen may be deficient.
- This respirator purifies ambient air. It does not generate oxygen.
- Do not use in atmospheres where the type or concentration of contaminants are unknown.
- Do not use in atmospheres that are immediately dangerous to life and health (IDLH).
- Some CBRN agents may not present immediate effects from exposure, but can result in delayed impairment, illness, or death.
- If during use an unexpected hazard is encountered such as a secondary CBRN device, pockets of entrapped hazard or any

unforeseen hazard, immediately leave the area for clean air without removing the respirator.

- The respirator should not be used beyond eight (8) hours after initial exposure to chemical warfare agents to avoid possibility of agent permeation. If liquid exposure is encountered, the respirator should not be used for more than two (2) hours.
- Do not use in flammable or explosive atmospheres.
- Do not use in contact with flame. Do not use for fire fighting.
- If you sense any of the following danger signals:
  - smell or taste of contaminants
  - eye, nose or throat irritation
  - breathing difficulty
  - uncomfortably warm breathing air
  - dizziness, nausea or vomiting

immediately leave the contaminated area. Do not remove the respirator until you have reached clean air and after decontamination as required.

- Where dermal (skin) hazards exist, use in conjunction with personal protective ensembles that provide appropriate levels of dermal protection. S.E.A. recommends the SE-shield range of protective ensembles, which are designed to integrate with the SE40.
- CBRN filters are intended for single use only. Do not fit used filters.
- Male wearers must be clean-shaven. Do not use with facial hair, or with hair or clothing that interferes with the face seal.

## Preparation for use

- A user must pass a Quantitative Fit Test (QNFT) and achieve a fit factor of at least 2,000 before being assigned a respirator.
- Identify the respirator as approved for use with the filter.
- Check the condition of the respirator in accordance with its user instructions.
- Identify the filter. The part number 125-CBRN1-CE is marked on the packaging and on the filter itself. The filter classifications are marked on the filter itself.
- Check that original packaging is sealed, that expiry date has not been exceeded, and that it has been stored correctly.
- Remove the filter from its packaging and inspect the filter. Check that the mating surfaces and threads of the filter and respirator are clean and undamaged. If damage is evident, do not use.
- Screw the filter into the respirator and tighten firmly. Spin the filter until it begins to tighten, then turn another 60 – 120° until firm. Do not overtighten.
- Fit prefilter 221 (optional) with prefilter holder PFH-T to provide added protection for the particle filter and prolong its life.
- Don the respirator in accordance with its user instructions. Ensure that a good face seal is achieved.