

DATA SHEET

CBRN canister, cap 1



Updated: 11 Jun 2008

Description:	CBRN (chemical, biological, radiological, nuclear) canister, cap 1																																														
Product name:	125-CBRN1																																														
Use:	<p>Protection against particulates, dust, smoke, fumes, bacteria, chemical and biological warfare agents, ammonia, and a wide range of organic, inorganic and acid gases.</p> <p>Intended for use in CBRN applications with SE40 positive-pressure demand CBRN PAPR and FP-C CBRN APR.</p>																																														
Approvals:	<p>NIOSH CBRN PAPR Cap 1 NIOSH CBRN APR Cap 1</p>																																														
Housing material:	ABS/PC plastic																																														
Weight:	495 g (17.5 oz)																																														
Filter medium:	Non-woven hydrophobic glassfibre paper, mechanical filtration																																														
Breathing resistance:	<50mm H ₂ O (4.9 mbar) at 85 l/min																																														
Filter efficiency:	<p>P4 — penetration <0.003% using paraffin oil at 95 l/min P4 high flow — penetration 0.01% using paraffin oil at 250 l/min These requirements exceed the NIOSH CBRN filtration efficiency requirement of 99.97%</p>																																														
Gas capacity:	<p>Service life exceeds the 15-minute requirement of NIOSH CBRN Capacity Class 1 for CBRN PAPR for all 10 Test Representative Gases (TRGs). Tests are performed at 64 l/min. Consult NIOSH website for full list of gases represented.</p> <table border="1"> <thead> <tr> <th>Compound</th> <th>Test conc. (ppm)</th> <th>Break-through conc. (ppm)</th> <th>Service life (minutes)</th> </tr> </thead> <tbody> <tr> <td>Ammonia</td> <td>2500</td> <td>12.5</td> <td>>15</td> </tr> <tr> <td>Cyanogen chloride</td> <td>300</td> <td>2</td> <td>>45</td> </tr> <tr> <td>Cyclohexane</td> <td>2600</td> <td>10</td> <td>>15</td> </tr> <tr> <td>Formaldehyde</td> <td>500</td> <td>1</td> <td>>45</td> </tr> <tr> <td>Hydrogen cyanide</td> <td>940</td> <td>4.7⁽¹⁾</td> <td>>45</td> </tr> <tr> <td>Hydrogen Sulfide</td> <td>1000</td> <td>5</td> <td>>45</td> </tr> <tr> <td>Nitrogen dioxide</td> <td>200</td> <td>1 ppm NO₂ or 25 ppm NO⁽²⁾</td> <td>>15</td> </tr> <tr> <td>Phosgene</td> <td>250</td> <td>1.25</td> <td>>45</td> </tr> <tr> <td>Phosphine</td> <td>300</td> <td>0.3</td> <td>>45</td> </tr> <tr> <td>Sulfur dioxide</td> <td>1500</td> <td>5</td> <td>>15</td> </tr> </tbody> </table>			Compound	Test conc. (ppm)	Break-through conc. (ppm)	Service life (minutes)	Ammonia	2500	12.5	>15	Cyanogen chloride	300	2	>45	Cyclohexane	2600	10	>15	Formaldehyde	500	1	>45	Hydrogen cyanide	940	4.7 ⁽¹⁾	>45	Hydrogen Sulfide	1000	5	>45	Nitrogen dioxide	200	1 ppm NO ₂ or 25 ppm NO ⁽²⁾	>15	Phosgene	250	1.25	>45	Phosphine	300	0.3	>45	Sulfur dioxide	1500	5	>15
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(1) sum of HCN and C₂N₂.

(2) Nitrogen dioxide breakthrough is monitored for both NO₂ and NO. The breakthrough is determined by which quantity, NO₂ or NO, reaches breakthrough first.

Chemical agent permeation and penetration resistance:

125-CBRN1 canister tested with FP-C CBRN APR and SE40 CBRN PAPR by NIOSH on breathing machine against distilled sulfur mustard (HD) and sarin (GB) as per table below:

Agent	Chall. conc.	Dur. of chall. (min)	Breath. mach. average air flow rate (l/min)	Max. peak excurs. (mg/m ³)	Max b'thru (conc. integr. over min. serv. life) (mg-min/m ³)	No. of syst. tested	Min. serv. life (h)
HD-vapor	50 mg/m ³	30	40	0.30	3.0	3	8
HD-liquid	0.43 to 0.86 ml	120	40	0.30	3.0	3	2
GB	210 mg/m ³	30	40	0.044	1.05	3	8

Storage period :

10 years if foil packaging intact

Storage:

Store at room temperature in clean, dry place