

## DATA SHEET

### Industrial filter (large & small)



Updated: 01 Feb 2005

<b>Description:</b>	Industrial filter, available in two weights																																																																						
<b>Product name:</b>	SE400 industrial filter																																																																						
<b>Use:</b>	<p>Used against particles, dust, smoke, fume, bacteria, viruses, biological warfare agents, and a wide range of organic, inorganic and acid gases and ammonia.</p> <p>Examples: industrial gases such as ammonia, hydrogen cyanide, acid gases, chlorine, sulfur dioxide, hydrogen chloride and many more.</p> <p>Also provides protection against Sarin, nerve gas, mustard gas, cyanogen, phosgene, radioactive dust, toxic particles, aerosols, tear gas, bacteria, viruses, anthrax, smallpox etc.</p>																																																																						
<b>Material:</b>	Reinforced polyamide. No metal parts.																																																																						
<b>Weight:</b>	Large filter: 370g (12.95 oz) Small filter: 320g (11.2 oz)																																																																						
<b>Thread:</b>	NATO/EN 148-1.40mm																																																																						
<b>Diameter:</b>	109 mm (4.3")																																																																						
<b>Capacity:</b>	<table border="1"> <thead> <tr> <th colspan="4"><b>Industrial compounds:</b></th> </tr> <tr> <th>Compound</th> <th>Conc. (ppm)</th> <th>Flow rate (l/min)</th> <th>Filter capacity (min)</th> </tr> </thead> <tbody> <tr> <td>Cyclohexane C<sub>6</sub>H<sub>12</sub></td> <td>5000</td> <td>30</td> <td>50</td> </tr> <tr> <td>Chlorine Cl<sub>2</sub></td> <td>5000</td> <td>30</td> <td>40</td> </tr> <tr> <td>Hydrogen sulfide H<sub>2</sub>S</td> <td>5000</td> <td>30</td> <td>&gt;120</td> </tr> <tr> <td>Sulfur dioxide SO<sub>2</sub></td> <td>5000</td> <td>30</td> <td>23</td> </tr> <tr> <td>Ammonia NH<sub>3</sub></td> <td>5000</td> <td>30</td> <td>50</td> </tr> <tr> <td>Carbon tetrachloride CCl<sub>4</sub></td> <td>1000</td> <td>64</td> <td>&gt;65</td> </tr> <tr> <td>Methylamine CH<sub>3</sub>NH<sub>2</sub></td> <td>1000</td> <td>64</td> <td>&gt;80</td> </tr> <tr> <td>Hydrogen chloride HCl</td> <td>500</td> <td>64</td> <td>&gt;35</td> </tr> <tr> <td>CO<sub>2</sub></td> <td>500</td> <td>64</td> <td>&gt;60</td> </tr> <tr> <td>Hydrogen fluoride HF</td> <td>70</td> <td>64</td> <td>&gt;60</td> </tr> <tr> <td>Formaldehyde HCHO</td> <td>100</td> <td>64</td> <td>&gt;100</td> </tr> <tr> <td>O-chlorobenzylidene malonitrile CS</td> <td>3</td> <td>64</td> <td>&gt;480</td> </tr> <tr> <td>CN teargas</td> <td>16</td> <td>64</td> <td>&gt;480</td> </tr> <tr> <td>DOP</td> <td>200mg</td> <td>85</td> <td>40mm H2O (penetr.0.004%)</td> </tr> <tr> <td>NaCl</td> <td></td> <td>95</td> <td>0.001%</td> </tr> </tbody> </table>			<b>Industrial compounds:</b>				Compound	Conc. (ppm)	Flow rate (l/min)	Filter capacity (min)	Cyclohexane C <sub>6</sub> H <sub>12</sub>	5000	30	50	Chlorine Cl <sub>2</sub>	5000	30	40	Hydrogen sulfide H <sub>2</sub> S	5000	30	>120	Sulfur dioxide SO <sub>2</sub>	5000	30	23	Ammonia NH <sub>3</sub>	5000	30	50	Carbon tetrachloride CCl <sub>4</sub>	1000	64	>65	Methylamine CH <sub>3</sub> NH <sub>2</sub>	1000	64	>80	Hydrogen chloride HCl	500	64	>35	CO <sub>2</sub>	500	64	>60	Hydrogen fluoride HF	70	64	>60	Formaldehyde HCHO	100	64	>100	O-chlorobenzylidene malonitrile CS	3	64	>480	CN teargas	16	64	>480	DOP	200mg	85	40mm H2O (penetr.0.004%)	NaCl		95	0.001%
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**Warfare compounds\*:**

Compound	Conc. (ppm)	Flow rate (l/min)	Filter capacity (min)
Sarin GB ( <i>Tested by SBCCOM</i> )			
<u>Nerve agent</u> Lethal dose: 35 mg/m <sup>3</sup> Effectice dose: 25 mg/m <sup>3</sup>	300 mg/m <sup>3</sup>	25	>60
Hydrogen cyanide HCN			
<u>Blood agent</u> Lethal dose: varies widely with concentration	5000	30	72
Cyanogen chloride CK ( <i>Tested by SBCCOM</i> )			
<u>Blood agent</u> Lethal dose: 11,000 mg/m <sup>3</sup> Effective dose: 7,000 mg/m <sup>3</sup>	4000 mg/m <sup>3</sup>	50	>45
O-chlorobenzylidene malonotrile CS			
<u>Tear gas</u> Lethal dose: 61,000 mg/m <sup>3</sup> Effective dose: 10-20 mg/m <sup>3</sup>	3	64	>480
Chloroacetophenone CN			
<u>Tear gas:</u> Lethal dose: 7,000-14,000 mg/m <sup>3</sup> Effective dose: 80 mg/m <sup>3</sup>	16	64	>480

*NOTE: Blue area signifies European test data using large filters. Remaining tests conducted in USA on small filters.*

*\*) Warfare gas test results are not derived from, nor have any relation to NIOSH testing*

**Breathing resistance :**  
At 30 l/min: <1.2 mbar  
At 95 l/min: <4.0 mbar

**Storage period :**  
5 years if seal is unbroken.

**Storage:**  
Store at room temperature in clean, dry place