

# Technical Data Sheet

## CBRN Canister Cap. 1 (15 min.)

### 1.0 General Data

1.1	Manufacturer	Dräger Safety AG & Co. KGaA Revalstraße 1, D – 23 560 Luebeck, Germany
1.2	Designation	CBRN canister Cap. 1 (15 min.)
1.3	Dräger part no.	67 38 146
1.4	Intended use	Respiratory protection against gases, vapors and particles in conjunction with a specified face piece. Scope of protection as indicated by product documentation, technical standards and installed application rules.
1.5	Relevant standards	Statement of Standard for CBRN Full Facepiece, APR (March 07, 2003) and Title 42, Code of Federal Regulations (CFR), part 84
1.6	Certification	TC – 14G – 0286
1.7	Export approval	License required for every export / Intra-EC transfer

### 2.0 Design & Construction

2.1	Connection to facepiece	Standard thread connection RA (Rd 40 mm x 1/7")
2.2	Materials	Canister housing: aluminium, coated inside Lacquering: black (RAL 9005) Sorbents: activated and impregnated carbon Particle filter: micro-glass fibres, cellulose-fibres, additives Plugs: aluminium / polyethylene Labels: paper
2.3	Design	The filter housing has a round shape and consists of the filter pot and the filter cover. Filter pot includes the RA thread, filter cover has a round opening to the inhalation side. There is one filter bed consisting of activated carbon. It is fixed by the housing and internal sieves. The particle filter is positioned in front of the gas filtration part on the inhalation side. It is made of one part and has round folds. A leaktight connection between the particle filter and the housing is performed by butyl glue. The filters are water-vapour-tight closed by an aluminium cap on the outlet and a plastic cap on the intake.
2.4	Working principle	Gases and vapors are removed from the ambient air by adsorption onto the sorbent (carbon), particles are filtered by the fibre filter.
2.5	Shelf life	max. 12 years (10+2) from date of production
2.6	Dimensions	Outer diameter: 109 mm Height (incl. thread and plugs): 100 mm Volume carbon: 330 ml Volume of the filter: 765 ml
2.7	Weight	Excl. package and plugs: approx. 350 g

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<b>3.0 Performance Data</b>	(minimum data in accordance with standard)	
3.1 Particle filtration efficiency	Test aerosol: Minimum efficiency (42 CFR 84):	DOP 99.97%
3.2 Gas filtration capacity	Test conditions (CBRN standard and 42 CFR 84):	Standard Condition: 64 L/min, 25° C, 80 % rel. humidity differs per gas 64 L/min, 25° C, 25 % rel. humidity differs per gas High Flow Condition: 100 L/min, 25° C, 50 % rel. humidity differs per gas

Type	Test gas (rel. humidity)	Test Condition / Flow rate (LPM)	Concentration	Breakthrough Concentration	Minimum Service Life
AM	Ammonia (NH <sub>3</sub> ) (25%)	64 L/min / 25° C	2,500 ppm	12,5 ppm	15 min
AM	Ammonia (NH <sub>3</sub> ) (80%)	64 L/min / 25° C	2,500 ppm	12,5 ppm	15 min
AM	Ammonia (NH <sub>3</sub> ) (50%)	100 L/min / 25° C	2,500 ppm	12,5 ppm	5 min
	Chlorcyan (ClCN) (25%)	64 L/min / 25° C	300 ppm	2 ppm	15 min
	Chlorcyan (ClCN) (80%)	64 L/min / 25° C	300 ppm	2 ppm	15 min
	Chlorcyan (ClCN) (50%)	100 L/min / 25° C	300 ppm	2 ppm	5 min
	Cyclohexane (C <sub>6</sub> H <sub>12</sub> ) (25%)	64 L/min / 25° C	2,600 ppm	10 ppm	15 min
	Cyclohexane (C <sub>6</sub> H <sub>12</sub> ) (80%)	64 L/min / 25° C	2,600 ppm	10 ppm	15 min
	Cyclohexane (C <sub>6</sub> H <sub>12</sub> ) (50%)	100 L/min / 25° C	2,600 ppm	10 ppm	5 min
FM	Formaldehyde (HCHO) (25%)	64 L/min / 25° C	500 ppm	1 ppm	15 min
FM	Formaldehyde (HCHO) (80%)	64 L/min / 25° C	500 ppm	1 ppm	15 min
FM	Formaldehyde (HCHO) (50%)	100 L/min / 25° C	500 ppm	1 ppm	5 min
	Hydrogen Cyanide (HCN) (25%)	64 L/min / 25° C	940 ppm	4.7 ppm (sum of HCN & C <sub>2</sub> N <sub>2</sub> )	15 min
	Hydrogen Cyanide (HCN) (80%)	64 L/min / 25° C	940 ppm	4.7 ppm (sum of HCN & C <sub>2</sub> N <sub>2</sub> )	15 min

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Type	Test gas (rel. humidity)	Test Condition / Flow rate (LPM)	Concentration	Breakthrough Concentration	Minimum Service Life
	Hydrogen Cyanide (HCN) (50%)	100 L/min / 25° C	940 ppm	4.7 ppm (sum of HCN & C <sub>2</sub> N <sub>2</sub> )	5 min
HS	Hydrogen Sulfide (H <sub>2</sub> S) (25%)	64 L/min / 25° C	1,000 ppm	5 ppm	15 min
HS	Hydrogen Sulfide (H <sub>2</sub> S) (80%)	64 L/min / 25° C	1,000 ppm	5 ppm	15 min
HS	Hydrogen Sulfide (H <sub>2</sub> S) (50%)	100 L/min / 25° C	1,000 ppm	5 ppm	5 min
	Nitrogen Dioxide (NO <sub>2</sub> ) (25%)	64 L/min / 25° C	200 ppm	1 ppm (NO <sub>2</sub> ) or 25 ppm (NO)	15 min
	Nitrogen Dioxide (NO <sub>2</sub> ) (80%)	64 L/min / 25° C	200 ppm	1 ppm (NO <sub>2</sub> ) or 25 ppm (NO)	15 min
	Nitrogen Dioxide (NO <sub>2</sub> ) (50%)	100 L/min / 25° C	200 ppm	1 ppm (NO <sub>2</sub> ) or 25 ppm (NO)	5 min
	Phosgene (COCl <sub>2</sub> ) (25%)	64 L/min / 25° C	250 ppm	1.25 ppm	15 min
	Phosgene (COCl <sub>2</sub> ) (80%)	64 L/min / 25° C	250 ppm	1.25 ppm	15 min
	Phosgene (COCl <sub>2</sub> ) (50%)	100 L/min / 25° C	250 ppm	1.25 ppm	5 min
	Phosphine (PH <sub>3</sub> ) (25%)	64 L/min / 25° C	300 ppm	0.3 ppm	15 min
	Phosphine (PH <sub>3</sub> ) (80%)	64 L/min / 25° C	300 ppm	0.3 ppm	15 min
	Phosphine (PH <sub>3</sub> ) (50%)	100 L/min / 25° C	300 ppm	0.3 ppm	5 min
SD	Sulfur Dioxide (SO <sub>2</sub> ) (25%)	64 L/min / 25° C	1,500 ppm	5 ppm	15 min
SD	Sulfur Dioxide (SO <sub>2</sub> ) (80%)	64 L/min / 25° C	1,500 ppm	5 ppm	15 min
SD	Sulfur Dioxide (SO <sub>2</sub> ) (50%)	100 L/min / 25° C	1,500 ppm	5 ppm	5 min

3.3	Inhalation breathing resistance (for system of mask and canister)	at 85 litres/min, constant flow (42 CFR 84)	with full face mask: max. 65 mm H <sub>2</sub> O initial
3.4	Mechanical resistance	Resistant to shock and vibration as required by EN 14387:2004 and Statement of Standard for CBRN Full Facepiece, APR (March 07, 2003)	
3.5	Chemical resistance	For normal use conditions the filter is resistant against temperature, humidity and corrosives. The filter is internally resistant against the filtering agents (sorbents). Ingress of water or other liquids must be avoided.	

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### 4.0 Documentation

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|-----|----------------------|---|
| 4.1 | Markings             | <u>Canister label</u> : showing color coding in accordance with Statement of Standard for CBRN Full Facepiece, APR (March 07, 2003), with 42 CFR part 84 and ANSI/AIHA Z88.7-2001, batch number, expiry date, filter type, part number, designation, cautions and limitations. Approval marking: <b>NIOSH</b> |
| 4.2 | Instructions for use | <u>3 languages</u> : US English, French, Spanish  |

### 5.0 Packing & Packaging

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|-----|--------------|--|
| 5.1 | Package      | Aluminium barrier foil bag<br><br>In addition: carton, robust for normal transportation and storage, closed with factory label indicating designation, type of filter, batch number, expiry date, storage conditions, name of manufacturer |
| 5.2 | Packing unit | 1 each (incl. 1 instructions for use)  |

### 6.0 User notes and limitations

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|-----|-------------|--|
| 6.1 | System      | For use with <ul style="list-style-type: none"><li>• Dräger full face mask CDR 4500</li></ul>  |
| 6.2 | Limitations | Dräger Safety AG & Co. KGaA guarantees the performance indicated by the class and type of the filter it is marked with. It must be noted that laboratory values differ from those that can be measured in practise. This may result in longer or shorter break through times. The user must read and understand the instructions for use. Additionally the knowledge of <b>all</b> relevant application rules is vital (see in particular the limitations in use). Further information on request. |

**Dräger Safety AG & Co. KGaA**