

**Filtration Efficiency of Breathing System Filter**

March 18, 2020

Dear Dräger Customer,

We herewith confirm the following retention rates for filtration efficiencies:

	Bacterial retention*	Viral retention**	NaCl retention***
CareStar® 45 (MP01755)	≥ 99.9999%	≥ 99.9999%	≥ 98.5%
CareStar® 40A (MP01765)	≥ 99.9999%	≥ 99.9999%	≥ 98.1%
CareStar® 30 (MP01770)	≥ 99.99%	≥ 99.99%	≥ 95.3%
SafeStar® 80 (MP01785)	≥ 99.9999%	≥ 99.9999%	≥ 99.99%
SafeStar® 55 (MP01790)	≥ 99.9999%	≥ 99.9999%	≥ 99.97%
SafeStar® 60A (MP01795)	≥ 99.9999%	≥ 99.9999%	≥ 99.98%
TwinStar® 90 (MP01800)	≥ 99.999%	≥ 99.999%	≥ 97.8%
TwinStar® HEPA (MP01801)	≥ 99.999%	≥ 99.9999%	≥ 99.8%
TwinStar® 55 (MP01805)	≥ 99.999%	≥ 99.99%	≥ 95.1%
TwinStar® 65A (MP01810)	≥ 99.999%	≥ 99.99%	≥ 97.3%
TwinStar® 25 (MP01815)	≥ 99.999%	≥ 99.99%	≥ 98.0%
TwinStar® 8 (MP01820)	≥ 99.9%	≥ 99.9%	≥ 79.1%
TwinStar® 10A (MP01825)	≥ 99.9%	≥ 99.9%	≥ 79.1%

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Sitz der Gesellschaft: Lübeck  
 Handelsregister:  
 Amtsgericht Lübeck HRB 7903 HL  
 Komplementär: Drägerwerk Verwaltungs AG  
 Sitz der Gesellschaft: Lübeck  
 Handelsregister:  
 Amtsgericht Lübeck HRB 7395 HL

Vorsitzender des Aufsichtsrats der  
 Drägerwerk AG & Co. KGaA und  
 Drägerwerk Verwaltungs AG:  
 Stefan Lauer  
 Vorstand:  
 Stefan Dräger (Vorsitzender)  
 Rainer Klug  
 Gert-Hartwig Lescow  
 Dr. Reiner Piske  
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- \* BFE According to Nelson Laboratories, Inc. Salt Lake City, USA. The mean particle size (MPS) of the challenge aerosol must be maintained at  $3.0 \pm 0.3 \mu\text{m}$ . The average percent bacterial filtration efficiency (%BFE) for the reference material must be within the upper and lower control limits established for the BFE test.
- \*\* VFE According to Nelson Laboratories, Inc. Salt Lake City, USA. The mean particle size (MPS) of the challenge aerosol must be maintained at  $3.0 \pm 0.3 \mu\text{m}$ . The average percent virus filtration efficiency (%VFE) for the reference material must be within the upper and lower control limits established for the VFE test.
- \*\*\* NaCl According to Nelson Laboratories, Inc. Salt Lake City, USA. The filter tester produces a particle size distribution with a count median diameter of  $0.075 \pm 0.02 \mu\text{m}$  and a standard geometric deviation not exceeding  $1.86 \mu\text{m}$  as determined with a scanning mobility particle sizer (SMPS).

In addition, the TwinStar® HEPA (MP01801) fulfills the requirements from filter class H13 according to DIN EN 1822-1:2011. We designed the SafeStar® filters with the same filtration medium as the TwinStar® HEPA.

We kindly ask you to take this information into consideration and follow the respective Instructions for Use.

Kind Regards,



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