# ADSORBENT SORBEO MS4

(Adsorption – Drying and Purification)



## **DESCRIPTION**

Adsorbent SORBEO MS4 is a highly porous, crystalline aluminosilicate in beaded form. The pore openings in the crystals have a diameter of approximately 4 Å. SORBEO MS4 is a product for dynamic drying of most gases and vapors. It can also be used to remove other impurities with effective molecule diameters smaller than 4 Å. Typical applications for SORBEO MS4 adsorbent are drying/purification of natural gas, reformer gas and air<sup>(1)</sup>.

# **APPLICATIONS**<sup>(2)</sup>

• Desiccant / adsorption dryers for compressed air

# **TECHNICAL SPECIFICATION (Typical Values)**

Appearance	Spherical beads
Material	Crystalline aluminosilicate
Bulk Density	730 g/l
Crush Strength	60 N
Bead Size	Approx. 2,5 – 5,0 mm
Total Volatile (950°C)	2,0 %
H <sub>2</sub> O-Adsorption at Capacity 10% r.h., 25°C	18,5 %
H <sub>2</sub> O-Adsorption at Capacity 80% r.h., 25°C	22,5 %
Crystals Pore Openings	4 Å

# **STANDARD PACKING**

MODEL	PACKAGE	MASS
SORBEO MS4-S	5,8 L container	4 kg
SORBEO MS4-M	16,6 L container	11,5 kg
SORBEO MS4-L	35,4 L container	24 kg
SORBEO MS4-XL	220 L barrel	150 kg
SORBEO MS4-XXL	Big bag	800 kg

 $<sup>^{(1)}</sup>$ For any other technical gas please contact us or your local dealer

<sup>(2)</sup> Adsorbent SORBEO MS4 can be used in variety of applications. For applications not listed please contact us or your local dealer.

#### HANDLING AND STORAGE

SORBEO MS4 Adsorbent for Drying and Purification of Gases and Liquids should be handled in a manner to avoid generation of dusty conditions at the workplace. When pouring into container in the presence of flammable liquids, gases or dust, earth both containers electrically to prevent a static electric spark and the risk of explosion. This product when stored in a cool and dry environment such as a warehouse has a shelf life of 4 years when packaged in Drums and 12 months when packaged in Big Bags (from the date of production). Big Bags should not be stored outside for prolonged periods of time, to avoid potential damage due to exposure to UV and rain/water. Extended exposure to UV light degrades the big bag material and this should be avoided. If outside storage is required, we recommend drum packaging. Open packages should be resealed to prevent contamination and adsorption of water or other gases and vapors. If you would like to use this product when the above mentioned shelf life has been exceeded, please contact the supplier.

### **HEALTH AND SAFETY INFORMATION**

Adsorbent SORBEO MS4 is a synthetic aluminosilicate bound with a mineral clay. In active conditions it will release heat when adsorbing water or other substances. If a large quantity of sieve quickly adsorbs water, the molecular sieve can become hot enough to cause thermal burns of the skin; contact has to be avoided under these conditions. Information to date indicates that the synthetic aluminosilicate is not toxic and does not cause fibrosis. The product contains, however, a small amount (ca. 1 %) of quartz carried over from the mineral binders. At present, EU Regulations do not require safety labeling of products containing quartz. However, quartz has been recently classified by IARC (International Agency for Research on Cancer) as carcinogenic to humans by inhalation (Group 1). Furthermore, quartz can cause silicosis or other lung diseases on prolonged exposure. When handling Molecular Sieve Beads the concentration of respirable quartz in the working environment is expected to be well below the limits allowed by the worker protection regulations. Nevertheless, the user is responsible for controlling the working environment according to local regulations.

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