Spherasorb™

Medical grade soda lime

Anesthesia ▪ CO_2 Absorbents

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What is Spherasorb™?

Spherasorb is medical soda lime designed by Intersurgical specifically for clinical use.

Unique characteristics

Spherasorb is a unique soda lime developed specifically to address the potential problems of use within the medical environment. Spherasorb is made of 3-4 mm spheres processed to minimize potential dusting. Its uniform shape allows consistent bed packing, resulting in a more even flow of anesthetic gases through the absorber. This results in Spherasorb lasting longer in use than other brands[9].

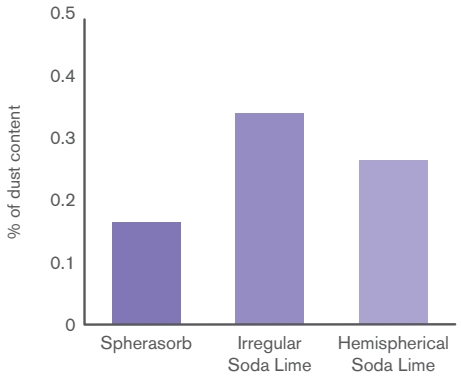
Low dust

The unique manufacturing process used to produce Spherasorb ensures that the dust content of the product is significantly lower than other soda limes[2].

In clinical use, it will minimize resistance to flow of gases.

It reduces the potentially harmful risk of dust contamination to the patient and the equipment.

Dust content of 5 liter jericans after traveling 1000 miles[3]



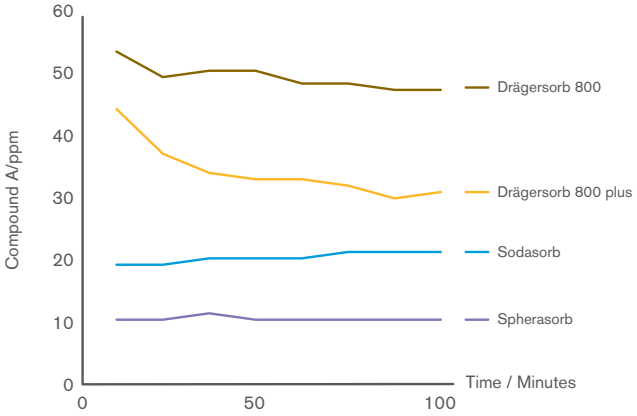
Hardness

The unique formulation of Spherasorb means that when tested for hardness, in accordance with USP specifications, it is found to be significantly superior to other competitive brands[4]. This together with the regular shape, minimizes the amount of dust produced during transit allowing the product to reach you in perfect condition for use[3]. Spherasorb will not break down if subjected to high humidity, and has a positive effect on the humidity in the system[3].

Anesthetic degradation

Spherasorb does not contain Potassium Hydroxide or Barium Hydroxide and only a very low level of Sodium Hydroxide. Spherasorb also contains a low level of a specific Zeolite. This is to address the risk of drying out completely.

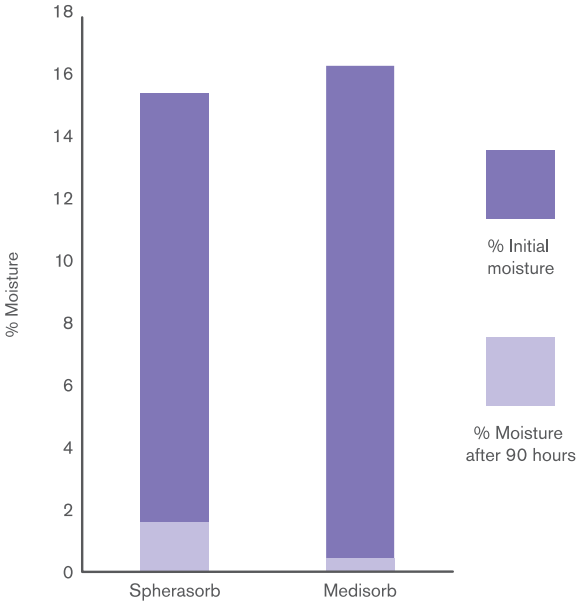
Compound A generation:[8] fresh soda lime + oxygen 2 L/min, 5% Sevoflurane



Independent tests have shown that Spherasorb has a unique formulation that presents less risk of generating anesthetic degradation products (Carbon Monoxide and Compound A). Tests have also shown that Spherasorb is more difficult to dry out than any other soda lime brands[10]. Since significant degradation occurs only when soda lime is dry, Spherasorb is an even safer product to use[5] [6] [7] [8].

Improved drying resistance of Spherasorb

Comparative study on the clinical behavior of two types of soda lime:

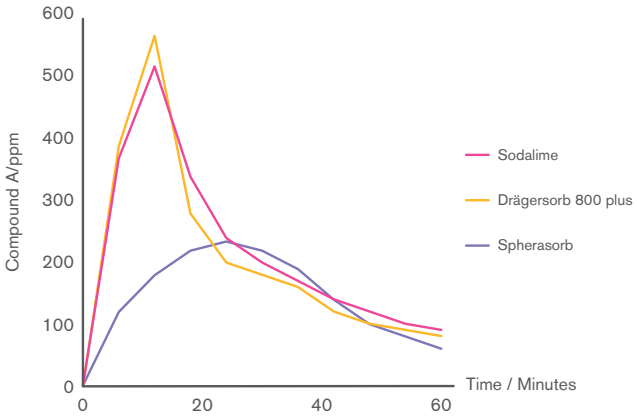


Clinical Hospital of Anesthesia, Valencia, Spain

Spherasorb moisture did not fall below 2% after 90 hours flow of dry oxygen

Jumbo absorber, 7 L/min dry oxygen for 90hrs (continuous).

Carbon Monoxide formation: 600 g dry absorbent, 5 L/min oxygen containing 0.5% Isoflurane.



Department of Anaesthesiology and General Intensive Care
University of Vienna, Austria.

Spherasorb is a high quality medical soda lime manufactured from a mixture of Calcium and Sodium Hydroxide and an inert hardening agent. It is supplied in the form of hard, porous, regular rounded pellets which have been specifically processed to maximize Spherasorb absorption capacity. One kilogram of Spherasorb will absorb a minimum of 120 liters of CO_2 (1).

Bed packing

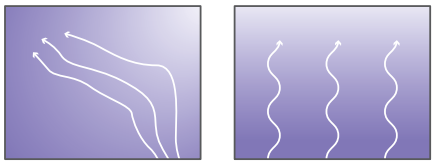
The consistently sized spheres allow for optimum bed packing compared with granular soda lime. This helps to maximize the performance of the product, by ensuring that good gas flow is guaranteed, preventing gas channeling and the possibility of the gas bypassing regions of absorbent inside the canister.

Choice

Spherasorb is available as loose granules in bags and jericans, as well as in pre-packed canisters for ease of use. Both products have a distinct color change which gives a clear indication of the product status. It is recommended that the color is used as an indication of exhaustion in conjunction with monitoring of Carbon Dioxide.

Spherasorb™ reduces channeling

Spherasorb's consistently sized spheres allow for optimum bed packing compared to granular soda lime. This helps to maximize performance by ensuring good even gas flows, preventing channeling.



With irregular granules, there is a wide and variable size distribution. You can never be sure that the material will always have the same physical bed packing properties.

Furthermore, with irregular granules there are likely to be regions in the absorber where most granules are big while in other regions, most granules may be small. This leads to channeling. Spherasorb is spherical and all the spheres are the same size — creating even packing.

Particle size distribution
Spherasorb has a consistent particle size and shape

Test	Typical results
Hardness USP	92% or over
Dust content (<0.42 mm)	0.2% or less
Mesh size 2.0–4.0 mm	98% or over
CO_2 absorption (L/kg)	120 minimum
Resistance to flow 500 g @ 60 L/min	0.9 cm H_2O

References: (1) Technical data of Spherasorb soda lime vs various competitor brands - Carbon Dioxide Absorption, September 1997, (2) Mesh analysis USP XXII - Intersurgical, September 1997, (3) Protocol and test results of a comparative test for Spherasorb to determine the level of dust produced after 1000 miles transit trial - Intersurgical, September 1997, (4) Technical data of Spherasorb soda lime vs various competitor brands - Physical properties hardness USP XXII, (5) Testing for interaction between anaesthetic agents and soda lime - University of Wales College of Medicine Department of Anaesthetics and Intensive Care Medicine. Heath Park, Cardiff - Bryan Williams, Prof. Harmer - September 1997, (6) Carbon Monoxide vs soda lime characteristics - Intersurgical 1999, (7) New Potassium Hydroxide absorbent Spherasorb produces less Carbon Monoxide - Dept. of Anaesthesiology and General Intensive Care, University of Vienna, Austria. (Paper to be published, draft abstract available on request.), (8) Reaction of Sevoflurane with soda lime - Prof. Dr. med H Forester Klinikum der Johann Wolfgang Goethe-Universitaet Frankfurt am Main: February 2000, (9) Spherasorb soda lime, questions and answers - Intersurgical 1999, (10) Comportamiento en clinica de dos tipos de cal sodada: Estudio Comparativo. Hospital Clinico Anesthesiology, Valencia

Ordering Information

IS Can™
1 kg. Pre-filled disposable carbon dioxide absorber

The IS Can is compatible with the following GE® anesthesia workstations: Aespire®, Avance®, Aisys®, ADU®

The Drum™
1 kg. Pre-filled disposable absorbent cartridge

The Drum is compatible with all anesthetic machines with single or double absorbers that have been designed to use a conventional pre-filled cartridge.

The Pyramid™
1 kg. Pre-filled disposable carbon dioxide absorber

The Pyramid is compatible with the following Draeger® anesthesia workstations if fitted with the Draeger® CLIC® adaptor: Cicero EM®, Cato edition®, Fabius CE®, Fabius GS®, Julian®, Primus®, Zeus®, Perseus®, Fabius Tiro®, Apollo®, Atlan® and Spacelabs ARKON™

The AbCan™
1.1 L Pre-filled disposable carbon dioxide absorber

The AbCan is compatible only with the Getinge® (formerly Maquet®) Anesthesia Delivery Systems, Flow-i™ C20, C30, C40, Flow-c™ and Flow-e™.

The SmartCan™
1.6 L Pre-filled disposable carbon dioxide absorber

The SmartCan is compatible with the GE Healthcare® anesthesia 600 series Carestation®; Carestation® 650™, Carestation® 620™, Carestation® 650c Pendant™ Carestation® 650c Wall Mount™ and Carestation 750™.

Loose Fill Options
5 L or 1 kg bags

The degree of color change at exhaustion depends on the conditions of use and is an indication only. Color change must be used in conjunction with monitoring of inspired CO_2.

2196000 2186000 2191001 2199001 2169001 2175000 2173000

Code	Description	Size	Box Qty.
2196000	IS Can, **Spherasorb** disposable CO_2 absorber, white to violet color change	1 kg	6
2186000	The Drum, **Spherasorb** CO_2 absorbent cartridge, white to violet color change	1 kg	10
2191001	The Pyramid, **Spherasorb** disposable CO_2 absorber, white to violet color change	1 kg	6
2199001	**AbCan, Spherasorb** disposable CO_2 absorber, white to violet color change	1.1 L	6
2169001	SmartCan, **Spherasorb** disposable CO_2 absorber, white to violet color change	1.6 L	6
2175000	**Spherasorb** jerican, white to violet color change	5 L	2
2173000	**Spherasorb** bag, white to violet color change	1 kg	10

Make an inquiry Find out more

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