

**VentiSorb<sup>®</sup>**  
Carbon Dioxide Absorbent

Product Data Sheet

**PRODUCT:** VentiSorb<sup>®</sup> Carbon Dioxide Absorbent



**DESCRIPTION / FUNCTION**

VentiSorb<sup>®</sup> is a carbon dioxide absorbent with excellent efficiency for use within closed circle anaesthesia systems. VentiSorb<sup>®</sup> is a medical grade soda lime prepared in granulated form. The individual granules are specifically non-uniform in shape and size so that CO<sub>2</sub> filtration is maximised without restricting gas flow. VentiSorb<sup>®</sup> offers excellent efficiency in absorbing carbon dioxide and other acidic contamination from the gas stream, with minimal interaction with anaesthetic agents. The active compound is naturally porous and hard which resists dust formation.

**WARNINGS**

- Do not use if packaging is open or damaged
- Ensure regular change out of absorbers – use a date sticker to keep track
- Containers should be stored in a clean, dry environment, at an even temperature between 0°C and 35°C. Storage at higher temperatures can result in reduced efficiency and service life due to moisture loss
- Containers should not be stored in direct sunlight, in contact with, or close to incompatible chemicals or acids, partial or total water immersion, atmospheres with abnormal concentrations of carbon dioxide, hydrogen sulphide or other acidic gases, freezing conditions (below 0°C) or with excessive stacking loads (2 pallets high is the maximum permissible)
- Avoid attempts to dry out circuits between cases (if the absorbent is in place) by running the ventilator, setting continuous gas flows or using central suction
- Should the soda lime be suspected to have dried out (e.g. to less than about 5% w/w water), or a sharp temperature increase is observed during the washing-in phase, or an unusual delay in inspired anaesthetic concentration is observed, the soda lime absorber should be immediately replaced with a fresh unit
- Dust levels encountered during the use of soda lime can be minimised by correct storage, careful handling during transport, regular cleaning of absorbers and breathing circuits, discarding the last 10mm or so of the pack, which may consist of dust or small granules and by including an antibacterial or similar filter at the Y Piece

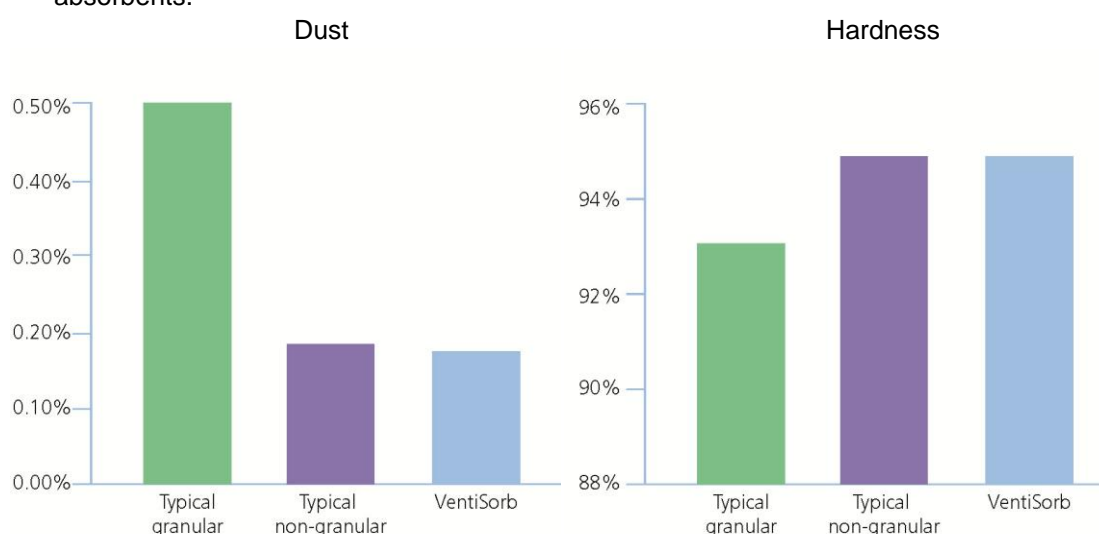
## WARNINGS (cont'd)

- Use low or moderate gas flows to maintain moisture levels in the circuit. Some circle systems have the absorber immediately downstream of the fresh gas inlet which may dry out the soda lime more rapidly
- Bypass the absorber when using high flows for extended periods or remove absorbent when equipment is out of use or on standby for more than a day
- Deterioration in the performance of soda lime type absorbers with age will only occur if there is substantial loss of moisture or significant ingress of carbon dioxide through the packaging
- Being alkaline in nature, soda lime should not be allowed to come into contact with sensitive skin, particularly with eyes or mucous membranes. Persons handling soda lime e.g. filling and emptying of absorbers, should wear suitable eye/face/hand protection
- After use, this product is contaminated waste and may be a potential biohazard. Handle and dispose of in accordance with hospital policy and applicable local guidelines and regulations

## SPECIFICATION / KEY FEATURES

- Increased moisture output
- Minimal anaesthetic agent degradation
- Improved heat retention
- When exhausted, VentiSorb will change colour indicating that the soda lime needs to be replaced. This should be used alongside a CO<sub>2</sub> monitor to confirm compound exhaustion
- Available in two different colour change indicators both conforming to international standards. Pink to White or White to Violet. Both give clear visual indications as to the extent of the CO<sub>2</sub> absorption and the life extent of the soda lime
- VentiSorb granules range from 2.5mm - 5.0mm in size, allowing for a tightly packed layered canister increasing the efficiency of the CO<sub>2</sub> absorption without significantly increasing resistance
- Granules are specifically non-uniform in shape and size so that CO<sub>2</sub> filtration is maximised without restricting gas flow
- 'D' profile granules produce a good packing density while minimising the distance to the core of the particle and providing a high ratio of surface area to volume



The graphs below demonstrate VentiSorb's physical characteristics in comparison to other soda lime absorbents.



## Compatibility with USP

Characteristic	Typical Result	Specification (USP 24)
Particle Size	90% between 2.36mm and 4.8mm	98% between 0.4mm and 6.3mm
Hardness	Typically 95%	75% minimum
Dust (<0.42mm)	Typically 0.3%	2% maximum
CO <sub>2</sub> Absorption	25%	19% minimum
Moisture	Typically ~ 16.0%	12 to 19%

## PRODUCT RANGE & PART NUMBERS

Product Code	Description
038-05-602	4.5kg VentiSorb supplied in resealable container (Pink to White) 
038-05-604	4.5kg VentiSorb supplied in resealable container (White to Violet) 

## MATERIALS

Component	Material
Granules	Calcium Hydroxide Sodium Hydroxide
Indicator (038-05-602)	Clayton Yellow
Indicator (038-05-604)	Methyl Violet

## STORAGE

Store in a cool, dry place out of direct sunlight.

## SHELF LIFE

Flexicare declares a shelf life of five years from the date of manufacture. This is based on the stability of the devices' components and raw materials sourced. Expiry date is clearly marked on individual product container.

## DISPOSAL CONSIDERATIONS

Dispose as clinical waste, in accordance with hospital policy, local guidelines and regulations.

## PACKAGING MATERIALS

Primary Container – High Density Polyethylene (HDPE)  
Secondary – Cardboard Box / Carton, Quantity per carton = 2