

**Title: SPHERASORB TRANSIT TRIAL TO ASSESS DUST GENERATION.**

**1 Introduction.**

The majority of dust contained in Soda Lime is produced by vibration and attrition during transport. Dust is a problem for the following reasons:

- Dust can block filters and impair the performance of one way valves.
- High levels of dust trapped inside the absorber can become moist and cause clogging. Therefore, channeling of gas will occur through the absorber and a higher resistance to flow will be generated.
- Dust in the atmosphere is unpleasant and irritating to staff during filling/replacement of the Soda Lime cartridges.

**2 Objective.**

The objective of this trial was to measure the generation of dust in Spherasorb, in 11 lb canisters after travelling over 1000 miles and compare this to irregular granules.

**3 Sample preparation and transit trial.**

- Sufficient samples of Spherasorb and Sofnolime were sieved at Intersurgical UK to remove all material below 2.36 mm.
- From the above sieved material, the following containers were packed:

2 x 11 lb canisters of Spherasorb

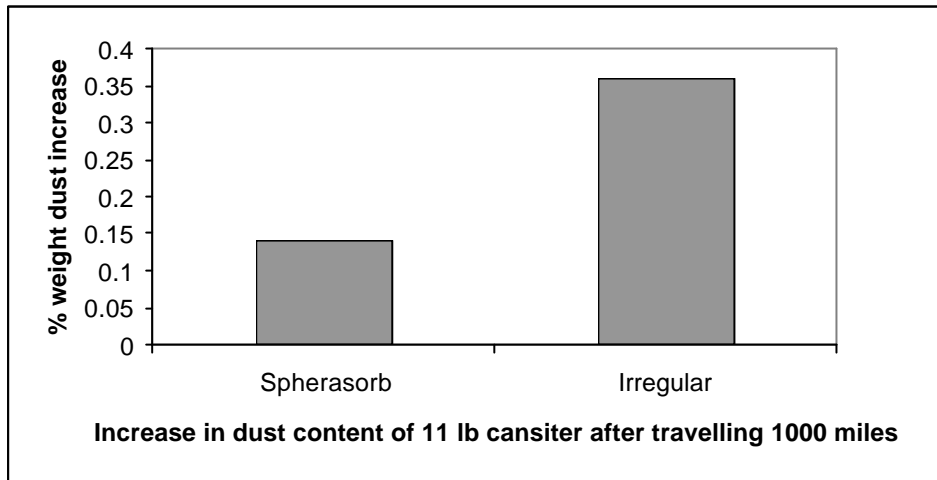
2 x 11 lb canisters of Sofnolime

NB: Sofnolime is also sold under the trade name Durasorb

- The canisters which contained no dust at this time were placed in boxes (2 per box so that there was no freedom for movement within the box).
- At Intersurgical UK the boxes were placed on a truck which was destined for a location over 500 miles away. This journey involved transport by road and sea.
- On reaching their destination, the boxes were not unloaded, instead, they were returned on the same truck, unopened and untouched to Intersurgical UK.
- On arrival back at Intersurgical UK, the entire contents of each canister was sieved over a 0.42 mm screen.
- The weight of dust (defined as product below 0.42 mm) that was collected in the bottom pan was expressed as a percentage increase in dust of the 11 lb canister.

#### 4 Results.

	Average increase in dust on return
Spherasorb	0.14 %
Sofnolime	0.36 %



Note, These are average results of the two canisters.

#### 5 Conclusion.

These results show that Sofnolime (also known as Durasorb) generates almost three times more dust during transport than Spherasorb. Therefore, Spherasorb arrives with you, ready for use in a lower dust and hence more suitable condition.