

Silica Gel Desiccant

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Silica Gel Desiccant Latest News

According to health professionals most silica beads found in silica gel desiccant sachets are non-toxic and don't present the same risk as silica dust.

About Silica Gel Desiccant

- Silica gel desiccants are common **moisture adsorbing agents** used throughout many industries worldwide.
- The silica gel desiccant removes **excess moisture from the air**.

Composition of Silica Gel Desiccant

- It is made of **silicon dioxide** (like most sands or quartz) which is a **hydrophilic** or water-loving material.
- Some variants of silica gel contain a moisture-sensitive dye. One particular variant is based on **cobalt chloride**.

Working of Silica Gel Desiccant

- The **beads are porous on the nano-scale** with pore sizes only 15 times larger than the radius of their atoms.
- These pores have a **capillary effect**, meaning they condense and draw moisture into the bead similar to how trees transport water through the channelled structures in wood.
- In addition, sponge-like porosity makes their surface area very large. A single gram of silica gel can have an area of up to 700 square metres.

Application of Silica Gel Desiccant

- It can be used in **safeguarding sensitive and effective raw materials** like electronics, pharmaceuticals, food, or precision instruments.
- It is used as a drying agent in industrial gases, and dehydration processes
- It is very useful in the control of moisture levels in the **manufacturing, packaging, or storage of automotive parts and vehicles.**
- It prevents the formation of rust and corrosion.
- It is used in air conditioning systems i.e one can use silica gel in automotive air conditioning systems to soak up excess moisture and keep your humidity levels at optimal levels.

Source: **DTE**

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