

# What Happens If I Eat Silica Gel?

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If there's one thing most people know about silica gel, the unseen substance that inhabits those little white packets inserted in new shoe boxes, purses, and Asian snack foods, it's that you're not supposed to eat it. Invariably, the ominous warning "do not eat" is emblazoned across the packet. Often it is accompanied by the edict, "throw away." In case that's not clear enough, a few varieties depict a skull and crossbones. OK, so, what happens if you eat it?

Nothing. Silica gel is a form of the naturally occurring mineral silicon dioxide, better known in its granular form as sand or in crystals as quartz. Its most notable trait is its porousness, which allows it to absorb up to 40 percent of its weight in water. Since at least the mid-20<sup>th</sup>-century, it has been widely used as a desiccant, placed inside containers to prevent the contents from getting damp. Most commonly, it comes in the shape of beads wrapped in a permeable packet. Used in everything from museum display cases to electronic equipment packaging to boxes of seaweed, it is popular in part because—contrary to the warnings—it's an inert, nontoxic substance that's essentially harmless. Indigestible, it passes through the body and comes out looking much the same as when it went in. At least one manufacturer even markets a modified form of silica gel as a dietary supplement, complete with "new citrus taste."

So why all the doom and gloom on the labeling? Because a surprising number of people, especially children, mistake the packets for food. In 2009, some 38,000 people reported ingesting desiccants, according to the American Association of Poison Control Centers. Of those, 34,000 were under the age of six. In most cases, poison control officials simply tell the parents not to worry. But like any other substance, silica gel could conceivably cause problems if eaten in large quantities, especially by small children or adults with neuromuscular problems that make it hard to swallow. The bigger danger, however, is that many children don't just eat the beads; they eat the whole packet. In that case, the hazard isn't poison, it's choking.

A couple of last caveats: While silica gel is the most common desiccant approved for use in food products, other, less benign substances are occasionally used in other types of consumer products. Also, a few varieties of silica gel come coated with cobalt chloride, which is considered toxic. The U.S. National Library of Medicine (part of the National Institutes of Health) deems swallowing a large amount at once not too dangerous, but grants that it may cause nausea and vomiting. For that reason, experts recommend calling a poison control center if you ingest a "do not eat" packet, just to be safe. The nationwide hot line for any poison emergency in the United States is 1-800-222-1222.

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*Explainer thanks Loreeta Canton of the American Association of Poison Control Centers and Evelyn Waring of Virginia Poison Control.*