

Pretty poison: 'Luster dust' sprinkled on cakes can be toxic

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(HealthDay)—It's often called luster dust, and it can add some sparkle to

your cake decorations. But health officials warn it also might contain poisonous heavy metals that are not meant to be eaten.

Luster dust is used to add glitter or color to desserts. However, Rhode Island and Missouri saw cases of heavy metal poisonings linked with commercial and homemade cakes decorated with luster dust in 2018 and 2019. The nonedible luster dust used on these cakes contained high levels of copper, lead and other metals, investigators found.

"There are food-grade versions, edible food-grade versions and nonedible versions and, unfortunately, the two have been confused and misused, and the labels are not always explicit," explained lead researcher Adrienne Ettinger, chief of staff for research at Rutgers Biomedical and Health Sciences at Rutgers University in New Brunswick, N.J.

Ettinger thinks that some people see "nontoxic" on the label and assume it's safe to eat, but nontoxic doesn't mean edible.

When you buy a cake or make one, those eating it rightly assume that it's safe to eat, and bakers, whether professional or not, can be misled by the labels on these products, she added.

"There's semantics involved here with these words, but the differences are subtle," Ettinger said. "So when someone sees nontoxic, I think they assume it means it's safe."

Ettinger thinks that many kids have been sickened by these products, but their cases have not been diagnosed or reported. Misreading and misunderstanding these labels is an easy mistake to make, she said.

The report was published Oct. 29 in [Morbidity and Mortality Weekly Report](#), a publication of the U.S. Centers for Disease Control and

Prevention.

Not all glitter is created equal

"The bottom line is that labels which indicate that a product is nontoxic does not necessarily imply that the product is safe for consumption," said Dr. Robert Glatter, an emergency physician at Lenox Hill Hospital in New York City.

"From a public health standpoint, clear and concise labeling indicating that nonedible products are not safe for human consumption is necessary to prevent illness and unintentional metal-based poisonings," said Glatter, who had no part in the report.

It is imperative to educate the public, commercial bakers and health care providers about possible dangers of metals used in food preparation, he said.

The use of luster dust in homemade and commercially prepared baked goods is a growing trend. But all that glitters isn't safe to eat, Glatter said.

"A recent [U.S. Food and Drug Administration] advisory panel found that luster dust products should only be consumed if they are labeled as edible and display a list of all ingredients," he noted.

According to the report, some luster dusts used to decorate cakes are not edible and may be labeled as "nontoxic" or "for decorative purposes only," but these dusts are supposed to be removed before the cake is eaten. Still, Rhode Island and Missouri reported cases of children aged 1 to 11 who got sick after eating birthday cakes.

The six cases in Rhode Island in 2018 were tied to ingesting copper, and the 2019 case in Missouri was tied to a child's elevated lead blood level.

In Rhode Island, luster dust that had been used in cake frosting was found to contain high levels of several metals.

The children in Rhode Island suffered vomiting and diarrhea that began 30 minutes to 10 hours after eating the cake and generally lasted less than 10 hours. One child had longer symptoms and went to an emergency room for treatment.

The cake came from a local bakery and was decorated with a thick layer of frosting mixed with luster dust labeled as "gold dust."

Better safety labeling needed

In the Missouri case, the culprit was a homemade birthday cake decorated with material called "primrose petal dust," which caused elevated lead levels in a 1-year-old. The container of the [dust](#) was labeled as "nontoxic" and sold by a Florida [cake](#) decorating company. It was marketed as a nontoxic color for decorating baked goods, candies, chocolate and sugar art, the investigators noted.

Better labeling that clearly states that these products are not safe to eat is needed to prevent these illnesses, the researchers said.

"Lead consumption in children is particularly a concern, as they absorb it much more readily than adults," Glatter said. "Levels accumulate over months to years and can lead to learning difficulties, behavioral changes, but also result in anemia, physical growth abnormalities, kidney damage, and ultimately can be fatal if not detected and treated by chelation therapy. Moreover, lead ingested by pregnant women can pass through the placenta and affect a baby's development."

Copper ingestion can lead to nausea and vomiting, abdominal pain, bleeding in the GI tract, [liver damage](#) leading to jaundice, low blood

pressure and potentially shock and death, Glatter said. "Accumulation of excess copper in the body may lead to liver failure, brain damage and can be fatal. Your liver normally removes excess copper by excreting it in bile, a compound made in the liver," he explained.

As part of the Federal Food, Drug and Cosmetic Act, the FDA requires that food additives adhere to specific safety and labeling guidelines. In fact, a premarket approval process is required before any listed color additive is considered safe for use on food, drugs or cosmetics, Glatter said.

"This premarket approval includes an analysis of toxicity based on certain safety testing data. But the lack of such data does not make such a substance nontoxic. Even if it is labeled as nontoxic, these inedible products are only to be used for decoration purposes and should not be consumed," he said.

More information: For more on luster dust toxicity, see the [U.S. Centers for Disease Control and Prevention](#).

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