

# Is the Pink Substance Dropped on LA Fires Safe?

今回は、ロサンゼルスで発生した山火事（fires）の消火活動に関するニュースです。現地の住宅地（residential area）が炎に包まれる光景は、日本でも大きく報道され、記憶に新しい方も多いのではないのでしょうか。消火活動では、空からピンク色の物質（substance）が散布されましたが、これは一体何なのか？ 住民や環境への影響はないのでしょうか？ 山火事のような大規模自然災害が発生した際、どのような対策が最善なのか、本文を読んで講師と議論してみましょう。



## 1. Article

Read the following article aloud.

The efforts to battle widespread fires across Los Angeles included aircraft drops of a bright red and pink [substance](#).

The material covered forests, homes, cars, and other things in the path of the wind-fueled fires. Because the substance was dropped in many [residential](#) areas, some people have wondered how safe it is.

The material is a fire [retardant](#). The kind dropped around Los Angeles was mostly a product called Phos-Chek. The substance has been used by the U.S. Forest Service to fight fires since the 1960s.

Jason Colquhoun is a 53-year-old pilot with HeliQwest, an aircraft company specializing in firefighting activities. He told the French news agency Agence France-Presse (AFP) that using the Barbie-pink material makes his job easier. "You can see it so easily ... it's amazing," he said.

Daniel McCurry is an associate professor of civil and environmental engineering at the University of Southern California. He said that in recent weeks, Phos-Chek had been dropped in residential areas more than ever before. That fact has led many to question its safety.

Phos-Chek is sold by fire protection equipment supplier Perimeter Solutions. It is a mixture of mostly ammonium phosphate or ammonium polyphosphate. These substances are also used to produce **fertilizer**. Other chemicals are added to the mixture to give it color. Perimeter told AFP the substance is designed to be one color. But it can look different depending on time of day, lighting, or smoke.

The bright pink color helps pilots as they try to make sure they have covered a whole area, Colquhoun explained. He noted that when pilots drop water from the air, they have to search for "the shine and the darkness" to know where to make the next drop. The colorful retardant, however, is "so much easier to spot," Colquhoun said.

McCurry said another reason it is better than water is that it keeps working even after the water it is mixed with dries. Phos-Chek is made thick so the wind does not blow it away and to ensure that it covers the desired area.

McCurry explained the substance works by forming a coating that will not burn. After the water dries up, the retardant keeps working until rain washes it into the ground. McCurry said a former firefighter told him that in a high-intensity fire the substance is "not much use." He added that the high winds driving the fires in Los Angeles may have limited its effectiveness.

U.S. Forest Service spokesperson Wade Muehlhof said the agency only uses retardants that meet U.S. government rules for not being harmful to animals, humans, or things living in water. He told AFP the Forest Service usually does not drop the retardant in waterways and areas home to endangered animals -- unless the fire is threatening human life or public safety. But accidents do happen, he said, and the wind may blow it into such areas.

McCurry said he believes Phos-Chek is "likely not harmless to the environment" now. But, he added, "On the other hand, the human health impact is still a little unclear." He noted that it would take "a lot" of retardant to poison, say, a large body of water.

But he said that as firefighters battled the Los Angeles fires, the substance was dropped on a lot of neighborhoods in "**unprecedented**" amounts. McCurry said Phos-Chek is more often used further from populated areas, or in lesser amounts. "So, who knows," he added.

I'm Jill Robbins.

Huw Griffith and Sarah Titterton reported this story for Agence France-Presse. Jill Robbins adapted it for Learning English.

## 2. Key phrases and vocabulary

First repeat after your tutor and then read aloud by yourself.

**1. substance (n.) material**

Lycopene is a natural substance found in tomatoes and may have health benefits.

**2. residential (adj.) related to a place where people live**

Residential areas along the river are protected from floods by a large concrete wall.

**3. retardant (n.) a material that protects against something**

To increase safety, airplane seats are covered with fire retardant.

**4. fertilizer (n.) a material that adds nutrients to the soil for plants**

Our organic farm uses only natural fertilizer.

**5. unprecedented (adj.) extreme; record**

An unprecedented amount of rain fell during the rainy season last year.

## 3. Questions

Read the questions aloud and answer them.

1. What is Phos-Chek, and why did firefighters drop it on the fires in LA?
2. Why do firefighter pilots like to use Phos-Chek instead of just water?
3. What possible risks do university professor McCurry and U.S. Forest Service spokesperson Wade Muehlhof mention in the article?
4. Do you think Phos-Chek should continue to be used on large fires?
5. What other methods can be used to prevent large fires from spreading?