

Isophorone - ToxFAQs™

What is isophorone?

Isophorone is a clear liquid that smells like peppermint. It can be dissolved in water.

Isophorone is used in industries to help dissolve other chemicals such as printing inks, paints, lacquers, and adhesives. It can also be used as an intermediate to make other chemicals.

Although isophorone is an industrial chemical, it also occurs naturally in cranberries.



What happens to isophorone in the environment?

Small amounts of isophorone can be released into the air from inks, paints, and other products containing it. It can also enter the water from industrial waste run-off.

In the air, isophorone breaks down quickly, and most will disappear in about 20 hours. In water, it can be broken down by bacteria after about a month. In soil, it may be broken down by bacteria, move into groundwater, or evaporate to the air. Not much is known about how long isophorone stays soil.

How can I be exposed to isophorone?

The most likely way you may be exposed to isophorone is by breathing low levels in the air. If you live near an industrial site that uses isophorone, your drinking water could become contaminated.

Working in the printing, adhesives, and coatings industries where isophorone is used can expose you by breathing or skin contact with isophorone.

How can isophorone affect my health?

In people, the only effects of isophorone that have been reported are irritation of the skin, eyes, nose, and throat, and dizziness and fatigue. These effects occurred in workers who breathed vapors of isophorone and other chemicals in the printing industry.

Similar to people, animals that breathed isophorone for short or long periods of time had irritation to the nose, lungs and eyes. Depression of the nervous system (lack of energy, slower reflexes, staggering) was seen in animals after eating, breathing or skin contact with high levels of isophorone. Eating or breathing isophorone for a long period of time caused liver, kidney, and stomach damage in mice.

Isophorone can be found in some printing inks, paints and adhesives. Breathing high levels can cause irritation of the nose and throat and fatigue.

Isophorone

Can isophorone cause cancer?

No studies are available on whether isophorone causes cancer in people.

Mice that ate isophorone for a long period of time developed lymphoma, liver and skin tumors.

The [U.S. Department of Health and Human Services \(DHHS\)](#) has not determined whether isophorone can cause cancer in people.

The [U.S. Environmental Protection Agency \(EPA\)](#) has classified isophorone as a possible human carcinogen (causes cancer in people).

The [International Agency for Research on Cancer \(IARC\)](#) has not determined whether isophorone can cause cancer in people.

Can I get a medical test to check for isophorone?

There currently is no medical test to determine if you have been exposed to isophorone.

How can I protect myself and my family from isophorone?

Inflatable water toys may contain isophorone. Do not allow your children to put these items in their mouth. Workers that use isophorone should follow safety guidelines to avoid possible exposure.

Follow your state's health advisories that tell you about whether it is okay to eat fish or wildlife caught in contaminated areas.

For more information:



Call **CDC-INFO** at 1-800-232-4636, or submit your question online at <https://wwwn.cdc.gov/dcs/ContactUs/Form>

Go to ATSDR's Toxicological Profile for Isophorone: <https://wwwn.cdc.gov/TSP/ToxProfiles/ToxProfiles.aspx?id=763&tid=148>

Go to ATSDR's Toxic Substances Portal: <https://wwwn.cdc.gov/TSP/index.aspx>

Find & contact your ATSDR Regional Representative at http://www.atsdr.cdc.gov/DRO/dro_org.html