

# N-Nitrosodiphenylamine - ToxFAQs™

## What is N-nitrosodiphenylamine?

N-nitrosodiphenylamine is an industrial chemical. It is an orange-brown or yellow solid that was first manufactured in 1945.

N-nitrosodiphenylamine is used to make rubber products, such as tires, or to make other chemicals. In the early 1980s, most U.S. rubber manufacturers replaced N-nitrosodiphenylamine with other chemicals. In 2016, only one facility in the United States was manufacturing and processing of N-nitrosodiphenylamine.



## What happens to N-nitrosodiphenylamine in the environment?

N-Nitrosodiphenylamine can enter the environment from waste sites. It usually breaks down in air, water, and soil within several weeks. In the air, sunlight breaks it down. In soil and water, N-Nitrosodiphenylamine is broken down by bacteria. N-Nitrosodiphenylamine will dissolve in water but sticks strongly to soil and does not move quickly through it. Laboratory studies show that N-nitrosodiphenylamine breaks down after 30 days in certain types of soil. It is not expected to accumulate (build up) in plants or animals.

## How can I be exposed to N-nitrosodiphenylamine?

Most people are not likely to be exposed to N-nitrosodiphenylamine. N-Nitrosodiphenylamine levels in air, water, or soil were below detection limit. However, higher levels were reported near National Priorities List Site.

People living near hazardous waste sites maybe exposed to N-nitrosodiphenylamine by drinking contaminated water, breathing contaminated air (No data), or having skin contact with contaminated soil and dust.

## How can N-nitrosodiphenylamine affect my health?

No information on health effects in humans is available. It is not known how exposure to N-nitrosodiphenylamine may affect a person's health.

Damage to the lining of urinary bladder was seen in animals that ate high levels this chemical. It is not known if this effect would happen in people.

**The likelihood you will be exposed to N-nitrosodiphenylamine is very low. In animals, this chemical can cause damage the bladder.**

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## Can N-nitrosodiphenylamine cause cancer?

There is very little information as to whether N-nitrosodiphenylamine causes cancer in people or not.

An increase in bladder cancer was seen in rats that ate high levels of N-nitrosodiphenylamine for a long period of time.

The [U.S. Department of Health and Human Services \(DHHS\)](#) has not determined whether N-nitrosodiphenylamine causes cancer in people.

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

The [International Agency for Research on Cancer \(IARC\)](#) has not determined whether N-nitrosodiphenylamine causes cancer in people.

## Can I get a medical test to check for N-nitrosodiphenylamine?

There are no tests to determine if you have been exposed to N-nitrosodiphenylamine.

N-nitrosodiphenylamine and its breakdown products have been measured in the blood and urine of exposed animals, but these tests have not been used for people.

## How can I protect myself and my family from N-nitrosodiphenylamine?

Most people do not need to take any special steps to avoid contact with N-nitrosodiphenylamine. Keep children from playing near hazardous waste sites.

### 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 N-nitrosodiphenylamine: <https://wwwn.cdc.gov/TSP/ToxProfiles/ToxProfiles.aspx?id=1009&tid=212>

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](http://www.atsdr.cdc.gov/DRO/dro_org.html)

