What is N-nitrosodi-n-propylamine?

N-Nitrosodi-n-propylamine is a chemical made by industries in small amounts for research purposes. It is a yellow liquid at room temperature.

Small amounts of N-nitrosodi-n-propylamine are produced as a side reaction during some manufacturing processes, including some rubber products. It also is a contaminant in some weed killers.

What happens to N-nitrosodi-n-propylamine in the environment?

Small amounts of N-nitrosodi-n-propylamine could be released to the environment from contaminated products or from disposal of waste containing this chemical. In the air, it is broken down quickly by sunlight. In water and soil, N-nitrosodi-n-propylamine evaporates from the surface into the air. In soil, it is also broken down by bacteria. N-nitrosodi-n-propylamine is not expected to accumulate (build up) in fish or animals that live in the water.

How can I be exposed to N-nitrosodi-n-propylamine?

People may be exposed to low levels of N-nitrosodi-n-propylamine by eating foods treated with sodium-nitrite preservatives (certain cheeses, cured meats and fish) and by drinking certain alcoholic beverages. Low levels have been found in cigarette smoke.

People working in the rubber industry or who apply weed killers contaminated with N-nitrosodi-n-propylamine may be exposed to low levels.

How can N-nitrosodi-n-propylamine affect my health?

No information is available on the effects of N-nitrosodi-n-propylamine in people.

Studies in animals exposed to high doses of N-nitrosodi-n-propylamine have shown effects in the liver, lungs, stomach, and nose.

You may be exposed to a small amount of N-nitrosodi-n-propylamine by eating foods treated with sodium-nitrite preservatives. No adverse effects are expected from eating treated food.
Can N-nitrosodi-n-propylamine cause cancer?

No studies are available on whether or not N-nitrosodi-n-propylamine causes cancer in people. Animal studies have shown an increase in cancer of the liver, nose, and stomach from N-nitrosodi-n-propylamine exposure.

The U.S. Department of Health and Human Services (DHHS) has classified N-nitrosodi-n-propylamine as reasonably anticipated to be a human carcinogen (causes cancer in people). The U.S. Environmental Protection Agency (EPA) has classified N-nitrosodi-n-propylamine as a probable human carcinogen. The International Agency for Research on Cancer (IARC) has determined that N-nitrosodi-n-propylamine is possibly carcinogenic to humans.

Can I get a medical test to check for N-nitrosodi-n-propylamine?

There are no tests to determine if you have been exposed to N-nitrosodi-n-propylamine.

How can I protect myself and my family from N-nitrosodi-n-propylamine?

To avoid coming in contact with N-nitrosodi-n-propylamine, limit the amount of foods you eat that are preserved with sodium nitrite and avoid smoking cigarettes.

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-Nitrosodi-n-propylamine: https://wwwn.cdc.gov/TSP/ToxProfiles/ToxProfiles.aspx?id=1005&tid=211

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