

Nitrous Oxide (CAS 10024-97-2) Market Research Report 2025

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Abstracts

Nitrous Oxide (CAS 10024-97-2) Market Research Report 2025 presents comprehensive data on Nitrous Oxide markets globally and regionally (Europe, Asia, North America etc.)

The report includes Nitrous Oxide description, covers its application areas and related patterns. It overviews Nitrous Oxide market, names Nitrous Oxide producers and indicates its suppliers.

Besides, the report provides Nitrous Oxide prices in regional markets.

In addition to the above the report determines Nitrous Oxide consumers in the market.

BAC Reports offers its clients in-depth market research of chemical industry products on the global and regional markets (North & Latin America, Asia Pacific, European Union, Russia and CIS).

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capacities and production

consumption volume and structure

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existing technologies

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market news digest

market forecast.

Nitrous Oxide (CAS 10024-97-2) Market Research Report 2025 can feature:

market condition and estimations, market forecast

chemical product ranges, trademarks, analogous products, application areas

regional and global producers, consumers and traders (including contact details).

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*Please note that Nitrous Oxide (CAS 10024-97-2) Market Research Report 2025 is a half ready publication and contents are subject to change. It only requires updating with the help of new data that are constantly retrieved from Publisher's databases and other sources. This updating process takes 5-7 business days after order is placed. Thus, our clients always obtain a revised and updated version of each report. Please also note that we do not charge for such an updating procedure. BAC Reports has information for more than 25,000 different chemicals available but it is impossible to have all reports updated immediately. That is why it takes 5-7 days to update a report after an order is received.

About

Product Name:	Nitrous Oxide
Synonyms:	Nitrous oxide
	Dinitrogen monoxide
	Hyponitrous acid anhydride
	Laughing gas
CAS#:	10024-97-2
Formula:	N ₂ O
Molecular Weight:	44.01

Nitrous oxide (commonly known as laughing gas, or sweet air), is a chemical compound with the molecular formula N₂O. Due to its long atmospheric lifetime and heat trapping effects, nitrous oxide is an important greenhouse gas. At room temperature, it is a colorless non-flammable gas, with a slightly sweet odor and taste; whereas at elevated temperatures, nitrous oxide is a powerful oxidizer similar to molecular oxygen. It dissolves in water to give a neutral solution. Nitrous oxide has gained a reputation of combining very well with most psychoactive drugs.

Nitrous oxide was first synthesized by English chemist and natural philosopher Joseph Priestley in 1775. In his book, Priestley described how to produce the preparation of "nitrous air diminished" by heating iron filings dampened with nitric acid.

In the 1790s, while testing the gas, Humphry Davy realized that inhalation of nitrous oxide could relieve a conscious person from pain. However, despite Davy's discovery, another 44 years elapsed before doctors attempted to use it for anaesthesia.

Nitrous oxide is most commonly prepared by the careful thermal decomposition of ammonium nitrate, with water vapor also generated. One of the earliest commercial producers was George Poe in Trenton from New Jersey, the U.S.

Nitrous oxide can also be made by heating a solution of sulfamic acid and nitric acid. In large volumes, this gas is generated as a by-product in the synthesis of adipic acid. It is

also produced by the reaction of hydroxylammonium chloride with sodium nitrite. Natural production of nitrous oxide occurs in soil and water from a wide variety of biological sources. On a global basis, it is estimated that natural sources account for over 60% of the total nitrous oxide emissions.

Nitrous oxide is commonly used in the field of medicine for its analgesic properties, cooking, rocketry, electronics, recreation and vehicle racing. The uses of the gas as a medicine, food additive, internal engine combustion and oxidizer are legitimate. However, it is illegal to use nitrous oxide as a cheap drug.

Nitrous oxide market is covered in the study Nitrous Oxide (CAS 10024-97-2) Market Research Report 2025. The report encompasses proper description of the product, unveils application areas, and briefly summarizes patents in the sphere. It overlooks nitrous oxide market situation, names manufacturers, suppliers as well as users. The report also provides current nitrous oxide prices in the market.

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