

# HAZARDOUS INCIDENT RESPONSE TEAM

## HOT TOPIC: NITROUS OXIDE SAFETY



Nitrous oxide ( $N_2O$ ) is a colorless, non-flammable gas commonly used in medical, dental, food processing, and industrial applications. In pressurized containers, it can be stored as both liquid and gas. While  $N_2O$  has valuable and legitimate uses, it poses several hazards if handled improperly. Risks include oxygen displacement in enclosed areas, frostbite from rapid release, enhanced combustion when near flames, and health effects from misuse.

### GENERAL SAFETY TIPS:

- **Store Properly:** Keep containers upright, secured and in a well-ventilated area away from heat, sunlight, and flammable materials.
- **Handle With Care:** Use approved equipment, avoid dropping or striking containers, and never lift by the valve.
- **Check Equipment:** Inspect containers, valves, and regulators before use; use only compatible, rated equipment.
- **Work in Ventilated Spaces:** Prevent oxygen displacement by ensuring adequate airflow; monitor oxygen levels when in enclosed areas.
- **Avoid Misuse:** Never inhale nitrous oxide recreationally, this can cause serious health effects or death.

### DISPOSAL:

Make sure the container is completely empty, full or partially full canisters can explode if thrown in the trash or compacted at a landfill. Never try to puncture or crush them by hand. If the container is completely empty, it can be disposed of in a metal recycling bin. If you are unsure whether it is completely empty, or if your local recycling program does not accept them, take the container to a household hazardous waste collection site for safe handling.

### GENERAL EMERGENCY PROCEDURES:

In the event of a suspected leak or accidental release, evacuate the area immediately and get to a place that has fresh air. Do not attempt to stop the leak unless it is safe to do so using proper protective equipment. If you experience symptoms such as dizziness, shortness of breath, or loss of consciousness, call 911 and seek medical attention. For significant leaks or situations that cannot be managed safely, contact your local hazardous materials team or waste authority for assistance.

### HELP IS HERE FOR YOU:

If you have questions on how to safely handle and store compressed gases, or need support in case of leaks, equipment failure, or exposure incidents, please contact the following agencies who can help:

- **California Department of Public Health, 916-558-1784**
- **Environmental Protection Agency, 866-372-9378**
- **County of San Diego Recycling and Household Hazardous Waste Hotline, 1-877-R-1-EARTH**

### Hazardous Incident Response Team

The San Diego County Department of Environmental Health and Quality Hazardous Incident Response Team (HIRT) was founded in 1981 by the Unified Disaster Council. It's funded by a Joint Powers Agreement (JPA) in an effort to provide comprehensive, all-hours emergency services support across geographic boundaries. The JPA is comprised of representatives from unincorporated San Diego, 18 incorporated municipalities, military bases and tribes.

Contact Us for Waste Disposal Questions:



858-505-6880



[sdcdhq.org](http://sdcdhq.org)



[HIRT Website]

