



TRAINING BULLETIN

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INHALANTS

INTRODUCTION

Inhalants, sometimes classified as deliriants, are breathable chemicals that produce psychoactive (mind-altering) results including intoxication, euphoria, dizziness, stupefaction, or dulling of the senses; or in any manner, change, distort or disturb the auidal, or mental process.

Most inhalants are common household products that give off fumes. There are over 1,400 volatile, potentially abusable products on the market today. General classes include volatile solvents (e.g., paint, model glue, fingernail polish, lacquer thinners, gasoline, etc.), aerosols (hair spray, deodorants, glass chillers), nitrates (room deodorizers), and gases (ether, chloroform, nitrous oxide). These products, when used for their intended purpose, are safe. But, these same products, when used for the purpose of getting "high," can be deadly.

The purpose of this bulletin is to present information on the identification, signs, and symptoms of inhalant usage.

BACKGROUND

The practice of inhaling gaseous substances with the intention of getting intoxicated dates back to the 1800's when nitrous oxide (laughing gas), chloroform, and ether were abused for recreational purposes.

At the turn of the 20th century, when petroleum began to be refined and manufactured into new products, such as solvents, thinners, and glues, many more substances began to be inhaled for their intoxicating effects.

Today, "huffing" or "sniffing," the deliberate concentration and inhalation of common household products to get high, has been tried by one out of every five children in the United States.

TYPES OF INHALANTS

There are four major categories of inhalants: volatile solvents, aerosols, gases, and nitrites. See the table below for inhalants and corresponding chemical composition.

PRODUCTS	CHEMICALS
<p><u>Volatile Solvents</u></p> <ul style="list-style-type: none"> • Airplane glue • Rubber cement • PVC cement • Lighter fluid • Fuel gas • Gasoline • Dry cleaning fluid, spot removers, correction fluid, degreasers • Nail polish remover • Paint sprays (especially metallic gold and silver) • Paint remover/thinners 	<p><u>Chemical Composition</u></p> <p>Toluene, ethyl acetate</p> <p>Toluene, hexane, methyl chloride, acetone, methyl ethyl ketone, methyl butyl ketone</p> <p>Trichloroethylene</p> <p>Butane, propane</p> <p>Butane, isopropane</p> <p>Hydrocarbons</p> <p>Tetrachloroethylene, trichloroethylene</p> <p>Acetone</p> <p>Toluene, methylene chloride</p> <p>Toluene, fluorocarbons, hydrocarbon</p>
<p><u>Aerosols</u></p> <ul style="list-style-type: none"> • Hairsprays, deodorants, frying pan lubricants, and glass chillers 	<p>Difluorochloromethane</p> <p>Fluorocarbons</p>
<p><u>Gases</u></p> <ul style="list-style-type: none"> • Nitrous oxide Slang terms: Whipped cream propellant, Whippets, laughing gas, Blue Nun, Nitrous • Chloroform • Ether • Local anesthetic 	<p>Nitrous oxide</p> <p>Chloroform</p> <p>Ether</p> <p>Ethyl chloride</p>
<p><u>Nitrites</u></p> <ul style="list-style-type: none"> • Sold as “room deodorizers” in head shops Slang terms: Locker Room, Rush, Climax, Quicksilver, Bolt, Bullet, “poppers” 	<p>Isoamyl nitrite. isobutyl nitrite, isopropyl nitrite</p>

METHODS OF USE

"Sniffing" is the street term for breathing in the inhalant directly from the container into the lungs.

"Huffing" is the term for soaking a rag, sock, tissue, or glove with a solvent or dissolved inhalant, then putting the rag to the mouth and inhaling.

"Bagging" means placing the inhalant in a plastic bag and inhaling in and out. Breathing the exhaled air intensifies the effect.

"Spraying" is the act of spraying the inhalant directly into the nose or mouth.

"Balloon and cracker" is the act of attaching a balloon to a container called a "cracker" (usually a cylinder of nitrous oxide) and releasing the inhalant, which inflates the balloon. The inhalant is then inhaled from the balloon.

Other methods include putting a bag over one's head, spraying an aerosol into the bag, and inhaling; pouring or spraying inhalants onto clothing (cuffs, sleeves, collars, etc.) or twist-cap beverage containers and then sniffing the vapors.

Things to look for	Inhalants
Nystagmus	Depends on substance
Pupils	Normal or possibly dilated
Pulse	Elevated
Blood Pressure	Elevated (volatile solvents) Lowered (nitrites and gases)
Mental Status	Confusion Distorted Perception Bizarre thoughts Impaired attention Euphoria
Other Signs	Red, glassy eyes Intoxication Slurred speech Staggering gait Dizziness Numbness Inflamed nose Nosebleeds Odor of substance Decreased appetite Muscle fatigue
Overdose Signs	Nausea Hallucinations Coma Death

ONSET AND DURATION OF EFFECTS

The effects of an inhalant occur rapidly. Duration depends on the particular substance. The nitrites produce effects that last about 30 seconds; nitrous oxide can last up to five minutes; volatile solvents can produce effects that last 30 minutes to several hours after exposure.

HEALTH HAZARDS

Sniffing highly concentrated amounts of the chemicals in solvents can induce heart failure and death. This is especially common from the abuse of fluorocarbons and butane-type gases. High concentrations of inhalants displace oxygen in the lungs inducing suffocation as well as causing the central nervous system which causes breathing to cease.

Serious but potentially reversible effects include:

- Liver and kidney damage – toluene and chlorinated hydrocarbons
- Blood oxygen depletion – organic nitrites and methylene chloride

Irreversible effects caused by inhaling specific solvents are:

- Hearing loss – toluene and trichloroethylene
- Peripheral neuropathies or limb spasms – hexane and nitrous oxide
- Brain damage – toluene
- Bone marrow damage – benzene

CONCLUSION

Inhalants are easily obtained and are commonly found in most homes. These are commercial products, but when inhaled are capable of producing harmful effects on the mind and can be quite toxic in small quantities.

This Bulletin cancels and supersedes Volume XXXI, Issue 12, Inhalants, September 1999

Field Training Services Unit
Police Training and Education

DISTRIBUTION "A"

Attachment: Suspected Fentanyl Handling Protocol

LOS ANGELES POLICE DEPARTMENT

Suspected Fentanyl Handling Protocol

Fentanyl and its analogues can present a significant hazard to Department personnel, particularly if inhaled. Personnel are most susceptible to inhalation when the drug particles are airborne. This is most likely to occur during the opening of containers or packages containing a fentanyl-based product, manipulating a fentanyl-based substance, or brushing/dusting fentanyl-based powders off clothing, gloves, or other surfaces. Due to this inhalation hazard, the NARK II screening tests on all suspected controlled substances has been discontinued. Officers encountering suspected fentanyl, or its analogues, shall adhere to the following guidelines:

- If the material is sealed or contained, officers shall follow existing protocols for booking evidence into Property Division without performing the preliminary NARK II testing.
 - Officers shall don the recommended personal protective equipment as follows:
 - Nitrile or latex gloves
 - Dusk mask: (N95 rated or above)
 - Eye protection
 - When possible, wear long sleeves
 - Avoid actions that may cause the material to become airborne. Officers shall not open a sealed container suspected to be fentanyl.
 - Describe the substance on the Property or Combined Evidence Report. Collect and package without agitating the substance or producing airborne particles. Write the words "Suspected Fentanyl" on the outside of the sealed plastic bag, and on the Analyzed Evidence envelope.
 - Determine the gross weight of the sample (including packaging) and include the information on the Property Report, Form 10.01.00 or Combined Evidence Report, Form 5.02.00.
 - Once the materials are collected and packaged, they should be secured in the trunk or rear cargo area of the officer's vehicle prior to transportation.
 - After the evidence has been booked, contact Forensic Sciences Division as soon as possible and request laboratory analysis.
 - Following completion of the evidence booking process, officers should wash hands with soap and copious amounts of water only. Alcohol-based wipes or hand sanitizers shall not be used.
- If any of the following occur, the involved personnel shall contact the Department Operations Center, at (213) 484-6700, and notify both the Gang and Narcotics Division Clandestine Lab Squad as well as the Hazardous Materials Unit for guidance:
 - If the material has breached its container and needs to be collected for evidence, the involved officers shall immediately exit and secure the location.

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- If the scene involves large quantities of suspected fentanyl (e.g., distribution/storage facility, pill milling operation, clandestine lab, gross contamination, spill, or release) or an overdose resulting in a death.

Note: If a Department employee or any other person believes they have been contaminated, officers shall monitor the exposed individual(s) for signs/symptoms of opioid intoxication and request a rescue ambulance or ensure other appropriate medical treatment is immediately provided. If a Department employee is trained, equipped, and authorized to administer Naloxone or NARCAN, it can be administered (if needed).

- Contaminated employees should not enter non-contaminated vehicles.
- If a Department vehicle is believed to be contaminated with fentanyl or one of its analogues, officers shall immediately remove the vehicle from service.
- If officers encounter suspected fentanyl combined with a threat, or other terrorism nexus.

Involved officers shall immediately notify a Department supervisor of any adverse incident involving fentanyl or its analogues (spilled material, contamination, inadvertent inhalation, or other means of accidental absorption, etc.).