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## INHALANT ABUSE

### Introduction

According to national surveys, inhaling dangerous products is becoming a widespread problem in the United States. Among middle school students, it is as common as using marijuana. One in five students in the country has abused an inhalant by the eighth grade. Inhalant use for males and females has been converging so that male use is only slightly higher than female use.

Inhaling vapors to alter a person's state of mind dates back at least to the time of the ancient Greeks when priestesses at Delphi inhaled vapors from a rock crevice to induce a trance-like state as part of their priestly activities. In the 1840s the effects of diethyl ether and nitrous oxide were demonstrated to the public leading to their use as anesthetics and the formation of a new branch of medicine, anesthesiology. Dr. Horace Wells introduced nitrous oxide and chloroform as dental and surgical anesthetics in 1844. However, in 1849 he died of chloroform abuse, illustrating early on the dangers of inhalant abuse. In the 1950s sniffing gasoline became popular among teenagers in the United States, especially in rural areas where alcohol and other drugs were less available. By 1965 glue sniffing was occurring in every state and in many foreign countries. Inhalant use has steadily increased in the United States,

Canada, and Mexico throughout the 1980s and 1990s.

### What are inhalants?

There are at least three chemically different types of inhalants—volatile hydrocarbons, amyl and butyl nitrates, and anesthetic gases. These three different substances are used for different commercial reasons and produce different biological effects. Volatile hydrocarbons are primarily used as solvents, refrigerants, and propellants. They act as central nervous depressants, producing effects similar to alcohol. Volatile nitrates dilate blood vessels and increase heart rate. Room fresheners contain butyl nitrate. Anesthetic gases, like nitrous oxide, produce the loss of sensations and sometimes the loss of consciousness as required for certain dental and surgical procedures. Nitrous oxide is also used as an aerosol propellant and flavoring agent for whipping cream.

Inhalant use is the intentional breathing of gas or vapors with the purpose of reaching a high. There are several terms associated with inhalant use—sniffing, huffing, and bagging. Inhalants can be sniffed directly from an open container or they can be huffed from a rag soaked in the substance and held to the face. If the open container or soaked rag is placed in a bag where the vapors

can concentrate before being inhaled, the term bagging may be used.

Most of the products used as inhalants are inexpensive, legal, and accessible. They are common household products that, when used as designed, have a useful purpose. They include familiar products like hair spray, gasoline, paint, glue, furniture polish, and air fresheners, but there are over one thousand inhalants that young people can get their hands on. There are several reasons why inhalant use is so popular. They can be obtained at low cost. There is an almost inexhaustible supply. They are universally available. No complex paraphernalia is necessary. Use can occur anywhere. The products are easy to conceal, and use is difficult to detect. The laws prohibiting the sale of products to minors are difficult to enforce and the practical legal consequences of their use are minimal. Education and awareness programs are generally not available in many schools and communities. In addition, adults are not sufficiently aware of the problem, and young people are not sufficiently aware of the consequences.

### **Harmful effects of inhalant use**

Inhalants produce effects similar to anesthetics; they slow down the body's function. A user may experience slight stimulation, a feeling of less inhibition, or a loss of consciousness. The user may also die from what is known as Sudden Sniffing Death Syndrome, due to a sudden disturbance of the heart's rhythm. Even if death does not occur, inhalants can cause serious damage to the heart, kidney, brain, liver, bone marrow, and other organs. For example, inhalants containing toluene impair the kidney's ability to control the amount of acid in the blood and, in the long run,

this may cause kidney stones to develop. Many of the chemicals in inhalants are believed to dissolve the protective myelin sheath that surrounds the brain cells, resulting in brain cell death. If used during pregnancy, inhalants cause effects similar to those seen caused by alcohol in Fetal Alcohol Syndrome. Also, since inhalants are addictive, users experience withdrawal symptoms.

There is often a link between inhalant use and problems in school. The problems may range from failing grades to chronic absences from school to general apathy. Other signs of inhalant use include paint or stains on the body or clothing, spots or sores around the mouth, red or runny eyes or nose, chemical breath odor, a drunk, dazed, or dizzy appearance, nausea or lack of appetite, and anxiety, excitability, or irritability.

### **Laws regarding the use of inhalants**

South Dakota has a law regarding inhalant use. The statute, SDCL 22-42-15, states that ingestion of a substance, other than alcohol, for the purpose of becoming intoxicated is a Class 1 misdemeanor.

Any person who intentionally ingests, inhales, breathes or otherwise takes into the body any substance, except alcoholic beverages as defined in § 35-1-1, for purposes of becoming intoxicated, unless such substance is prescribed by a practitioner of the medical arts lawfully practicing within the scope of their

practice, is guilty of a Class 1 misdemeanor.

The following table provides an overview of state inhalant legislation. Of the states with inhalant legislation, most prohibit the inhalation of certain compounds much like South Dakota. Some states prohibit the sale or

distribution to minors. The information was compiled by the National Conference of State Legislatures and may not be a complete report of legislative efforts. It does, however, provide a general guide of what the laws prohibit.

### STATE INHALANT LEGISLATION

State	Law Prohibits	Substances Prohibited
Arizona	sale, transfer, or offer to sell to minor	vapor releasing substance containing toxic substance
California	sale, distribution, dispensation, possession to minor	toluene, materials containing toluene, nitrous oxide
Colorado	inhaling certain compounds for intoxication	general prohibition of inhalable compounds
Connecticut	sale, distribution to minor	nitrous oxide, including "whippet kits"
Georgia	general inhalants; also prosecutes inhalants under DUI law	general prohibition of inhalable compounds
Florida	inhaling certain compounds for intoxicification	general prohibition of inhalable compounds
Hawaii	knowingly selling toluol or inhalable compounds to minors	liquid/chemical containing toluol, inhalable substances
Idaho	possession by minors or use of inhalant for intoxicification	aerosol spray, other inhalant
Illinois	knowingly sell, offer or deliver to minor	liquid/chemical containing toluol, inhalable substances
Iowa	sale, distribution or use for the purpose of intoxicification	nitrous oxide
Kentucky	inhaling certain compounds for intoxicification	general prohibition of inhalable compounds
Louisiana	prohibits sale or transfer of possession to minor	model glue, inhalable toluene substances
New Mexico	sale to minors; inhaling or possessing for intoxicification	model glue, aerosol spray, & chemicals for intoxication
Maine	inhaling toxic vapors for effect; sale or distribution for purpose of intoxicification to minor	general prohibition of inhalable compounds
Maryland	distribution, instruction to minor; sale or distribution to minor	drugs/noxious substances, including butyl nitrite & butane
Massachusetts	retailers must require ID for sale and maintain register of minors which is available for police inspection; inhalants are required to have noxious deterrents against intoxicification	glue or cement

Michigan	inhaling certain compounds for intoxicification	general prohibition of inhalable compounds
Minnesota	sale to minors; use and possession for intoxicification; businesses must post signs stating it is illegal to sell butane/butane lighters to minors	general inhalable compounds, butane/butane lighters
Mississippi	inhaling certain compounds for intoxicification	general prohibition of inhalable compounds
Nebraska	inhaling certain compounds for intoxicification; retailers must maintain registry of sale	general inhalable compounds
New Hampshire	inhaling certain compounds for intoxicification	toxic vapors, not including anesthesia
New Jersey	sell or offer to sell to minors	product containing chlorofluorocarbon that is used in refrigerant
Nevada	sale or offer to give to minors	aerosol paint, glue, cement containing toluene
North Carolina	inhaling certain compounds for intoxicification	general prohibition of inhalable compounds
North Dakota	inhaling certain compounds for intoxicification	general prohibition of inhalable compounds
Ohio	inhaling certain compounds for intoxicification	general prohibition of inhalable compounds
Oklahoma	inhaling certain compounds for intoxicification	general prohibition of inhalable compounds
Oregon	inhaling certain compounds for intoxicification	general prohibition of inhalable compounds
Pennsylvania	inhaling certain compounds for intoxicification	general prohibition of inhalable compounds; butane/canisters
Rhode Island	inhaling certain compounds for intoxicification	general prohibition of inhalable compounds
South Carolina	inhaling certain compounds for intoxicification	general prohibition of inhalable compounds
South Dakota	inhaling certain compounds for intoxicification	general prohibition of inhalable compounds
Tennessee	inhaling certain compounds for intoxicification	general prohibition of inhalable compounds
Texas	possess, sell or buy; businesses required to post warning signage & pay license fees designated for prevention fund	abusable volatile chemicals
Utah	inhaling certain compounds for intoxicification	general prohibition of inhalable compounds
Vermont	inhaling fumes for effect	certain hazardous inhalants, glues
Virginia	inhaling certain compounds for intoxicification	general prohibition of inhalable compounds

## Local Treatment Program

A residential treatment program for inhalant abuse, operated by Our Home, Inc., is located in Huron. The award-winning program has been treating children and young adults between the ages of ten and seventeen since the early 1990s. The program has a thirty-five percent success rate one year after treatment, which is a very good rate of success for this type of program.

The program is unique in America and serves minors from across South Dakota and the nation. The average length of stay is ninety days, during which there is an extensive detoxification program. Since the brain can recover neurologically, treatment includes identifying the part of the brain that is impaired and stimulating it again. The program is capable of treating up to sixteen participants at a time. It typically has fourteen participants at any given time.

## Summary

When examining the abuse of inhalants, it is also important to note the stark contrast between the abuse of inhalants and the abuse of hard drugs. The abused product itself is very different. The products used for inhalant abuse are inexpensive, readily available, and have some useful purpose. In contrast, where typical drug use is concerned, the drugs are expensive, the user generally has to find a buyer or be able to grow or manufacture the drug, and there is no other purpose for which the drug is used. The typical user of inhalants is young and often has self-esteem issues, whereas, the typical drug user is older and, at least for cocaine users, has social status. It is a mistake to think of inhalant abuse as just a particular type of drug abuse. Inhalant abuse and hard drug abuse have very different dynamics and warrant very different legislative policies. The treatment program in Huron is a good example of dealing with the specific problem of inhalant abuse.

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**This issue memorandum was written by Jacque Storm, Principal Legislative Attorney for the Legislative Research Council. It is designed to supply background information on the subject and is not a policy statement made by the Legislative Research Council.**

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