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A GREAT DEAL of publicity is devoted to the dangerous of drug and alcohol abuse while thousands of common household and industrial products are abused with little fanfare.1 Inhaling or sniffing glue, liquid cement, lighter fluid or air freshener seems innocuous but they can be more dangerous than street drugs with life altering consequences.2 This article will discuss the medical implications of huffing and other similar practices as well as whether those who drive a motor vehicle while under the influences of these chemical fumes can be convicted of driving under the influence.

WHAT IS AN INHALANT? • Any number of substances can be misused recreationally but the term “inhalant” is limited to those substances that generally enter the body through the respiratory system by way of the nose or mouth. These inhalants can be classified based upon their chemical composition and include:

1 Portions of this article have been previously published in Using Inhalants To Obtain a Cheap High Is No Laughing Matter In Medical and Legal Circles,” Journal on Gender, Race and Justice, Thurgood Marshal School of Law, Vol.VI, Issue 1, 2016, pages 1-12. They are reprinted with permission.

• **Nitrites** such as amyl nitrite which may be utilized by those who wish to enhance a sexual experience;

• **Gases** include medical products such as nitrous oxide which is found in whipped cream containers and propane tanks;

• **Volatile solvents** are liquids that convert to a gas at room temperature. They are found in products such as paint thinners, gasoline, glue and lighter fluid;

• **Aerosol sprays** are the common inhalants located in a residence or business and include deodorants, cooking sprays, cigarette lighters, spray paint and hair products.

While each item is different in its chemical composition and origin, they are readily available, easy to hide and inexpensive; factors which make them appealable to individuals seeking a cheap high.

**STATISTICS** • The misuse of inhalants is not restricted to a particular section of the population. Rather, it is a pervasive problem that has no economic, social or age related restrictions. The Substance Abuse and Mental Health Administration has ascertained that more than 22.8 million people have tried inhalants of which at least 2.6 million were child between the ages of 12 and 17. Unfortunately, adolescent inhalation is a precursor to alcohol and tobacco use and the switch by some young adults to “harder” drugs such as marijuana and cocaine while others continue to inhale these toxic fumes while adults. Children between the ages of 12 to 15 generally inhale fumes from gasoline, spray paint, glue, and shoe polish while new users between 16 and 17 favor nitrous oxide. Adults advance to nitrites such as amyl nitrites.

Abuse of inhalants by adults is not limited to any particular group but there are several risk groups who wish to obtain a quick sense of euphoria or an aphrodisiac effect. These include those with easy access to the inhalants at work such as dentists, nurses, shoemakers, painters, anesthesiologists, anesthetists, and dry-cleaners.

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8 | Id. See also Edward Jauch, Inhalants, [emedicine](http://emedicine.medscape.com/article/1174630-overview) (last visited September 14, 2015).


**ROUTES OF ADMINISTRATION**

Inhalation has many names including huffing, inhaling, bagging, sniffing, snorting, and spraying for a reason. These terms refer to the routes of administration, or points of entry of these chemical vapors, and involve inhalation through the nose or mouth. Common inhalation techniques include:

- **Huffing**—This method of inhalation involves soaking a cloth with a chemical and placing it in the mouth;
- **Inhaling or ballooning**—These terms refer to the sucking of nitrous oxide from a balloon;
- **Spraying or dusting**—As its name implies, the chemical is sprayed directly into the mouth or nose;
- **Bagging**—With this technique, the product is placed in a bag and the fumes are inhaled;
- **Snorting or Sniffing**—This method involves inhaling the fumes directly from an aerosol container.\(^{11}\)

Regardless of the method used, the goal is to achieve a short-lived feeling of euphoria.\(^{12}\) Some abusers, however, attempt to extend this pleasurable sensation by inhaling the chemical vapors multiple times over a sustained period of time.\(^{13}\)

**MEDICAL DANGERS OF INHALANTS**

When inhalants enter the body though the nose or mouth they are quickly assimilated in the respiratory system. Since blood vessel surround the alveoli, or tiny balloons in the lungs, the toxins are absorbed into the blood and travel throughout the body.\(^{14}\) It takes about sixty seconds for the blood to complete this journey,\(^{15}\) so the user will experience the feeling of euphoria or intoxication within minutes.\(^{16}\) Therefore, it is not hard to appreciate that introducing powerful chemical vapors into the body that come in contact with the lungs, liver, kidneys, and brain can have a deleterious effect.\(^{17}\) In exchange for this quick high, users risk permanent damage to their organs.

From a purely medical analysis, inhalants have two applications. Initially, the chemical vapors replace the oxygen in the alveoli thereby depriving the brain of its much needed oxygen. This causes the sensations of being dizzy, excited or happy, a state the user wishes to achieve.\(^{18}\) The second consequence is that the vapors are absorbed into the circulatory system causing them to be rapidly disbursed throughout the body and into the central nervous system.\(^{19}\)


\(^{12}\) Id.


\(^{16}\) *Dangers and Effects – Inhalant Abuse Prevention*, Alliance for Consumer Education, supra. Most inhalants depress the central nervous system and can cause such things as slurring of speech, dizziness and lack of coordination. *Drug Facts: Inhalants*, National Institute on Drug Abuse, supra.

\(^{17}\) Id.

nervous system (CNS) thereby allowing them to enter the brain.\textsuperscript{19} This can cause the vapors to act as a depressant comparable to that experienced with alcohol consumption\textsuperscript{20} or the fumes can cause the brain to excrete dopamine, an organic compound critical to mood and thinking.\textsuperscript{21}

The exact mechanism of how these vapors create their sought after effect may not be known\textsuperscript{22} but the adverse consequences of inhalation are many. Death can occur even with a first time use.\textsuperscript{23} Known as “Sudden Sniffing Death Syndrome,” or SSDS, the inhalant can cause heart failure by adversely stimulating the heart thereby causing cardiac arrest.\textsuperscript{24} The vapors are known to exaggerate the cardiac muscle’s sensitivity to adrenaline making the person overreact to being surprised or accelerating the heartbeat following exercise or sexual stimulation. This adrenaline stimulation then results in sudden death.\textsuperscript{25} Chemical vapors known to cause SSDS are those found in propone, aerosols and butane.\textsuperscript{26} Other causes of death include:

\begin{itemize}
  \item Fatal Injuries sustained while high from the vapors;
  \item Choking resulting from the swallowing of vomit while using an inhalant;
  \item Being deprived of oxygen as the result of the high concentration of vapors in the lungs which replace the much needed oxygen;
  \item Suffocation of the person as the result of a plastic bag over the head while inhaling fumes;
  \item Seizures caused by irregular electrical signals in the brain; and\textsuperscript{27}
  \item Developing cancer as the result of exposure to some of the fumes which are known carcinogens.\textsuperscript{28}
\end{itemize}

The long term effects of inhaling vapors are just as serious as any street drug\textsuperscript{29} and include injury to the nervous system which causes a diminution in mental abilities, depression, irreversible damage to the organs, cardiac and hepatic toxicity, loss of coordination and hearing, memory loss, electrolyte

\footnotesize
\begin{itemize}
  \item Damage Inhalants Can Do to the Body and Brain, National Inhalant Prevention Coalition, http://www.inhalants.org/damage.htm (last visited September 18, 2015).
  \item Elizabeth Criss, Huffing: Prehospital Identification and Treatment of Inhalant Abuse, Journal of Emergency Medical Services, supra.
  \item Edward Jauch, Inhalants, emedicne, supra.
  \item Guidelines for Medical Examiners, Coroners and Pathologists: Determining Inhalant Deaths, National Inhalation Prevention Coalition, supra.
  \item Id.
\end{itemize}
imbalances, neurogenic toxicity, dementia, fibrosis, muscle spasms, weight loss, bone marrow irregularity, muscle weakness, fetal defects and coma.\(^\text{30}\)

The immediate or short term health effects of vapor abuse go far beyond the feeling of intoxication or euphoria. They can include nausea, vomiting, dizziness, hallucinations, bullish conduct, slurred speech, burns and irritation of the mouth, halitosis, loss of bowel or bladder control, headaches, fatigue, sneezing, coughing, impaired judgment and loss of inhibitions.\(^\text{31}\)

Inhalants can also become physically or psychologically addictive requiring continued use because the body becomes dependent upon them.\(^\text{32}\) Suddenly stopping them can cause long time users to develop symptoms of withdrawal such as convulsions, mood swings, chills, agitation, excessive sweating, nausea, headaches, inability to concentrate, and muscle cramps.\(^\text{33}\)

**LEGAL IMPLICATIONS** • Congress has long appreciated the dangers associated with the manufacturing, distribution, and use substances that can alter a person’s mood or behavior, and it has enacted a variety of laws to regulate their illegal distribution and to regulate proper uses of these substances.\(^\text{34}\) The most well-known legislation is the Federal Controlled Substances Act but this law fails to address inhalants.\(^\text{35}\) Thirty-eight states, however, have enacted statutes concerning inhalant abuse.\(^\text{36}\) A few of these states specifically focus on the use of toxic vapors and fumes by minors and require mandatory counseling,\(^\text{37}\) and others have placed limitations on their sale or distribution.\(^\text{38}\) Penalties range from small fines to jail time.\(^\text{39}\) Most


\(^{31}\) *Id.* and *Huffing: Inhalant Effects, Statistics, and Treatment*, TeenHelp.com, supra. and


\(^{37}\) See *Possession of Inhalants by Minors*, Idaho Code Section 18-1502B and Sale, Distribution or Transfer of Harmful Chemical Substances: Penalties; Authority for Enforcement, West’s Florida Statutes Annotated Section 499.039.

\(^{38}\) See *Distribution of Inhalant and Instruction on Inhaling*, Maryland Code, Criminal law, Section 5-709 and “Inhalant Paraphernalia,” Texas Health and Safety Code Ann. Section 485.033.

\(^{39}\) *Are Inhalants Illegal*, Foundation for a Drug Free World, supra. For instance, Vermont imposes a $25
states laws are very broad in scope to encompass as many inhalants as possible such as Massachusetts which provides:

No person shall intentionally smell or inhale the fumes of any substance having the property of releasing toxic vapors, for the purpose of causing a condition of intoxication, euphoria, excitement, exhilaration, stupefaction, or dulled senses or nervous system, nor possess, buy or sell any such substance for the purpose of violating or aiding another to violate this section...Whoever violates the provisions of this section shall be punished by a fine of not more than two hundred dollars or by imprisonment for not more than six months, or both.40

Others are more focused such as Oregon whose law identifies twenty-three specifically banned substances along with a catch-all phrase that includes “any other solvent, material, substance, chemical or combination thereof having the property of releasing toxic vapors of fumes.41

The most complicated legal question, however, deals with the use of inhalants while driving a motor vehicle and whether that operator can be convicted of driving under the influence. Logic suggests that the answer should be the same as a person who operates a motor vehicle while under the influence of drugs or alcohol. The answer is not that simple and depends upon how the state’s DUI laws are drafted and whether an inhalant falls within the contemplation of the legislation. For example, a New York man, who caused a fatal car crash after huffing an aerosol computer cleaner, could not be charged with driving while intoxicated because that state’s laws did not include the inhalant on its list of drugs that cause impairment.42 On the other hand, the Montana Supreme Court ruled that sniffing a can of aerosol dust-remover was a “drug” within the meaning of its drunk driving laws because the aerosol was “a substance that alters one’s perception, consciousness, or impairs physical or mental abilities.”43 Overall, the majority of jurisdictions have attempted to make the operation of a motor vehicle after inhaling chemicals a punishable offense while some states continue not to identify any specific substances in their DUI statutes other than alcohol and drugs.44 The following is an analysis of whether inhalants are covered under a state’s driving under the influence laws.

Simple Language Statutes

Some states have simply added inhalants to their exiting DUI laws thereby making the legislature’s intent clear that these substances are covered. For instance, Oregon’s45 statute reads in pertinent part that a driver violates the law by driving under the influence “of intoxicating liquor, a controlled substance, or an inhalant.”46 Several other jurisdictions simply make it illegal to drive under the influence of an inhalant47 while others


46 Id.

add language flushing out what specific chemicals will be covered for purposes of driver under the influence. Colorado provides that a “drug” will be considered as “any inhaled glue, aerosol, or other toxic vapor or vapors, as defined in section 18-18-412, C.R.S.” This section lists fifteen chemicals that if inhaled will be defined as a drug under the state’s DUI statute. Wyoming does not list any specific chemicals. Rather, the law includes any substance that is intentionally sniffed or inhaled that impairs the driver.

New Jersey recently amended its laws so that its DUI statute covers inhalants. Its law makes it clear that a driver will be prosecuted for intoxicated driving, if they have in their body, any substance containing a chemical compound of: “acetone and acetate, amyl nitrite or amyl nitrate or their isomers, benzene, butyl alcohol, butyl nitrite, butyl nitrate or their isomers, ethyl acetate, ethyl alcohol, ethyl nitrite or ethyl nitrate, ethylene dichloride, isobutyl alcohol or isopropyl alcohol, methyl alcohol, methyl ethyl ketone, nitrous oxide, n-propyl alcohol, pentachlorophenol, petroleum ether, propyl nitrite or propyl nitrate or their isomers, toluene, toluol or xylene.” Despite this extensive listing of banned substances, the statute concludes with an all-encompassing provision that includes: “any other chemical substance capable of causing a condition of intoxication, inebriation, excitement, stupor or the dulling of the brain or nervous system as a result of the inhalation of the fumes or vapors of such chemical substance.”

This statute is an excellent example of how a legislative body left no doubt about its decision to prosecute a person for driving after inhaling chemicals. This hard–nosed approach was adopted in the response to the death of Kim Goupal. Ms. Goupal was a passenger in a car being driven by a friend who had inhaled dust cleaner. The facts show that the defendant lost control of her automobile and hit a guard rail causing the death of her friend. A blood test revealed that the defendant had difluoroethane in her system, a chemical found in a can of dust remover. At the time of the accident, New Jersey’s driving under the influence law did not cover a motorist who was under the influence of inhaled chemicals. Because of the public outcry over the law’s failure to cover the situation, the legislature changed its statute to include a zero-tolerance policy for inhalants under its DUI laws.

Not many states use the comprehensive approach adopted by New Jersey. Rather, some jurisdictions merely add the word “inhalants” or a derivative of that term to their DUI statutes making huffing illegal. For instance, Arizona’s statute provides that a vehicle operator will be considered to be driving under the influence if it can be determined that he or she had ingested, “a vapor releasing substance containing a toxic substance… if the person is impaired to the slightest degree.”


Id. at 417.

Id.

Joe Moszczynski, In Wake of Teen’s Death, Kimmie’s Law Preaches Zero Tolerance for Inhalant Use, NJ.com., supra.

Id.

Broader Language Statutes

Some states handle the problem by using very broad language that makes it an offense to be under the influence of any substance that impairs the ability to drive. By omitting any reference to inhalants, these states focus on the defendant’s ability to drive, regardless of what substance is used to reach the state of inebriation. Illinois is an example. Its statute provides that a person will be guilty of driving under the influence if found operating a vehicle, “under the influence of any intoxicating compound or combination of intoxicating compounds to a degree that renders the person incapable of driving safely.” The interpretation of this statute was an issue in the case of Carly Rousso whose vehicle struck and killed a five-year-old girl after he had inhaled a cleaning agent before driving. The defense maintained that Rousso could not be convicted of DUI since the intoxicant in question was not specifically mentioned in the statute. Nevertheless, the court found the defendant guilty noting that she had the “intent to get intoxicated,” so she was operating her vehicle while under the influence. Alabama provides that a driver will be considered driving under the influence if he or she uses “any substance which impairs the mental or physical faculties of such person to a degree which renders him or her incapable of safely driving.” Kentucky has a similar approach by making it illegal for an operator of a vehicle to be, “under the influence of any substance or combination of substances which impairs one’s driving ability.”

Statutes with Limiting Language

Despite the growing awareness of those becoming intoxicated by the use of inhalants, a handful of states do not mention inhalants or noxious chemicals in their DUI statutes or use a general provision prohibiting driving while under the influence through the use of any substance that impairs the ability to drive. For example, Wisconsin’s law provides that no one may drive while under the influence of “an intoxicant, a controlled substance… or any combination of an intoxicant, a controlled substance and a controlled substance analog…to a degree which renders him or her incapable of safely driving.” In State v. Torbeck, the defendant was discovered passed out in her car in a ditch along the side of a road. The police transported her to a hospital where a blood test determined that she had DFE in her system. She was charged with operating a vehicle while intoxicated (OWI). At trial, the charges were dismissed on the basis that DFE was not covered under the Wisconsin drunk driving laws. On appeal, the court held that to be convicted of driving under the influence, DFE would either have to be an intoxicant, a controlled substance, a controlled substance analog, or a drug.

A similar holding was reached in New York after a motorist inhaled a chemical while driving and collided with an oncoming vehicle. The defendant was charged with drunk driving under that state’s law which provides that no one shall drive when in an intoxicated condition. The charge was dismissed and the government appealed. The appellate court upheld the decision and determined

62 Id.
65 Wis. Stat. § 346.63(1)(a)
67 Id. at *1.
68 Id
69 Id.
70 Id. at *2.
71 People v. Litto, 822 N.Y.S.2d 130 (N.Y. App. Div. 2006), aff’d, 872 N.E. 2d. 848 (N.Y. 2007)).
72 N.Y. Veh. & Traf. Law § 1192.
that its law only regulated alcohol consumption and not other forms of intoxicants.\(^73\)

Montana’s Supreme Court reached a different conclusion even though its DUI statute is almost identical to that of Wisconsin.\(^74\) The defendant was found in a motel’s bathroom after crashing his car into a light post.\(^75\) A bottle of aerosol dust remover was recovered from the bathroom and a toxicology screening found that the driver had DFE in his system.\(^76\) The defendant moved to dismiss the charge arguing that the DUI statute was not applicable to DFE.\(^77\) Montana’s law defines “under the influence” as taking into the body alcohol or drugs that would affect a person’s ability to safely operate a vehicle.\(^78\) The court noted that “[t]he common and readily understood meaning of the word “drug” in the context of traffic regulations is a substance that alters one’s perception, consciousness, or impairs physical or mental abilities.”\(^79\) The court found this definition to be clear and gave adequate notice that driving impaired is illegal in the state.\(^80\)

**Statutes That Fail Their Intended Purpose**

Even when a state tries to include huffing in its legislative scheme, the language employed must be specific enough to cover its intended purpose. For instance, an enumerated list of chemicals may actually hinder the prosecution of a person charged with driving under the influence because of the inhalation of chemicals. Massachusetts provides an example of a state whose law notes that a driver will be found guilty of driving under the influence if the driver is, “[U]nder the influence of intoxicating liquor, or of marijuana, narcotic drugs, depressants or stimulant substantives … or the vapors of glue.”\(^81\)

At first glance, this law seems to prohibit the driving of a vehicle after using inhalants. However, a Massachusetts Appellate Court found that this statute did not cover huffing.\(^82\) In *Commonwealth v. Sousa*, the defendant was discovered unconscious after his vehicle was observed going through a stop sign and coming to a stop in the middle of the intersection.\(^83\) When a person who had observed the vehicle’s movement approached the truck, the driver sat up, put something in his mouth, and drove off. The observer called the police who subsequently observed the truck stopped with its engine running, and the driver reclined in his seat.\(^84\) The police officer then witnessed the defendant put an aerosol can to his mouth and inhale deeply.\(^85\) The defendant was escorted from his vehicle and the police found two aerosol cans in the truck.\(^86\)

The defendant was prosecuted for driving under the influence and the evidence demonstrated that one of the cans contained difluoroethane.\(^87\) The defendant’s conviction was overturned on appeal because the statute did not make all narcotics, stimulants, or depressants illegal when driving and difluoroethane was not a listed substance.\(^88\) The court reasoned that the legislature could have included the substance but the legislature clearly omitted the substance from its law.\(^89\)

**CONCLUSION** • Inhaling noxious chemicals can have a harmful effect on the human body including death or serious injury. Nevertheless, these substances continue to be abused by people to

\(^73\) *People v. Litto*, supra.

\(^74\) *State v. Pinder*, supra.

\(^75\) *Id.*, 350 P. 3d at 378.

\(^76\) *Id.* at 378.

\(^77\) *Id.* at 378-79.

\(^78\) *Id.* at 382.

\(^79\) *Id.* at 381.

\(^80\) *Id.* 1t 381-82.


\(^83\) *Id.* at 441.

\(^84\) *Id.* at 441-42.

\(^85\) *Id.* at 442.

\(^86\) *Id.* at 443.

\(^87\) *Id.* at 442.

\(^88\) *Id.*

\(^89\) *Id.*
obtain a feeling of euphoria. An equally disturbing trend is the number of motorists who operate their vehicles after inhaling a chemical substance. While the risks and penalties of driving under the influence of alcohol or drugs may be well known, the courts struggle with the uncertainty of whether a person who drives while impaired due to chemical inhalation is within the contemplation of their DUI laws. The answer to this question has been mixed. Nevertheless, the publicity generated by the tragic cases of those who have been injured or killed by chemically impaired drivers has had one positive influence. More and more jurisdiction are amended their laws to include the inhalation of a chemical substance in their DUI laws.