Inhalant effects

Inhalation of butane can cause:

- Euphoria (a state of very intense happiness and feelings of well-being)
- Drowsiness
- Narcosis (deep stupor or unconsciousness)
- Asphyxia (severely deficient supply of oxygen to the body)
- Cardiac arrhythmia (the heart beat may be too fast or too slow, and may be regular or irregular)
- Frostbite.

Long-term Use

Butane affects the central nervous system which consists of the brain and the spinal cord. Together with the peripheral nervous system, it has a fundamental role in the control of behaviour.

The nervous system is also able to make basic motor skills and other skills possible. The basic 5 senses of texture, taste, sight, smell, and hearing are powered by the nervous system. If disabled, basic motor skills may be lost.

Unlike the central nervous system, the peripheral nervous system is not protected by bone, leaving it exposed to toxins and mechanical injuries. This system is responsible for coordinating the body movements, receiving external stimuli and controlling the functions of the body (e.g. heartbeat, blood pressure, digestion.)

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about:

Butane Gas

GAS

Butane is the most commonly misused volatile substance in the UK. It is an organic compound found in natural gas and produced from petroleum. Highly flammable, it is a colourless, odourless, easily liquefied gas.

Butane gas is sold bottled as a fuel for cooking and camping. When blended with propane and other hydrocarbons, it is referred to commercially as LPG. It is also used as a petrol component, as fuel for cigarette lighters and as a propellant in aerosol sprays such as deodorants.

Very pure forms of butane, especially isobutane, can be used as refrigerants and have largely replaced the ozone layer depleting halomethanes, for instance in household refrigerators and freezers.

In **cigarette lighter refills** butane gas is the main component chemical found, usually making up 90% of the product. As these flammable containers are activated under pressure, the fuel gas is released at a very low temperature, presenting a risk through direct oral abuse of external frost bite and respiratory difficulties.

Aerosol spray is a type of dispensing system which creates an aerosol mist of liquid particles. This is used with a can or bottle that contains a liquid under pressure. When the container's valve is opened, the liquid is forced out of a small hole and emerges as an aerosol or mist. As gas expands to drive out the product, some propellant evaporates inside the can to maintain an even pressure.

Outside the can, the droplets of propellant evaporate rapidly, leaving the product suspended as very fine particles or droplets.

Propellant gases used as inhalants include Freon and compressed hydro fluorocarbons, which are used in various household and office products that come in aerosol spray cans, such as air freshener, computer keyboard cleaner spray (gas dusters, sometimes erroneously called "canned air"), non-stick cooking spray, aerosol insecticides, and aerosol hairspray.

The most common propellants are mixtures of volatile hydrocarbons, typically propane, n-butane and isobutane. All these have the disadvantage of being highly flammable.

Death from inhalants is generally caused by a very high concentration of fumes. Further concern is the additional toxicity resulting from either the physical properties of the compound itself, or additional ingredients present in a product.

A proposed mechanism of death associated with butane and aerosol propellants being sprayed directly into the throat and causing acute cooling is vagal inhibition. This results in inhibition of the vagus nerve which runs between the brain and the heart. Current advice is that this is not a probable mechanism for death.

Research into the long-term effects of abuse is inconclusive, but there are concerns that exposure to the impurities found in fuel grade butane might give rise to long-term health problems, such as carcinomas (malignant cancers.)

The Cigarette Lighter Refill (Safety) Regulations 1999

These regulations make it an offence to supply any cigarette lighter refill canister containing butane or a substance with butane as a constituent part, to any person under the age of 18 years. The maximum penalty for a breach of the regulations is a six-month prison sentence, a fine of £5,000 or both.

Intoxicating Substances (Supply) Act 1985

Under this act it is illegal for a person to sell or supply a substance to anyone believed to be under the age of 18 or anyone acting on behalf of someone under that age, if he or she has reasonable cause to believe that the substance may be inhaled for the purpose of intoxication. The statute does not make it an offence, however, to purchase and subsequently abuse solvents and other volatile substances.

The Act is applicable in England, Wales and Northern Ireland.

Scottish Common Law

The supply or sale of solvents or volatile substances to any person, knowing that these substances will be abused has been held to constitute criminal conduct. Courts have imposed fines of up to £12,000 and prison sentences of two years.

The LAW