

Diborane

Patient Information Sheet

This handout provides information and follow-up instructions for persons who have been exposed to diborane.

What is diborane?

Diborane is a colorless gas with a repulsive, sweet odor. It is used in rocket propellants and as reducing agent, as a rubber vulcanizer, as a catalyst for olefin polymerization, as a flame-speed accelerator, and as a doping agent. Because diborane is a gas at ambient temperature, the most likely exposure routes are inhalation and dermal.

What immediate health effects can be caused by exposure to diborane?

Even small exposures to diborane may cause immediate irritation of the eyes, nose, and throat, and shortness of breath, as well as coughing, wheezing, shortness of breath, and tearing of the eyes. Some of these signs and symptoms may develop several hours after exposure occurred. Exposure to diborane can also cause dizziness, headache, drowsiness, and lack of coordination. Breathing large amounts of diborane may cause the lining of the throat and lungs to swell, making breathing difficult. Generally, the more serious the exposure, the more severe the symptoms.

Can diborane poisoning be treated?

There is no antidote for diborane, but its effects can be treated and most exposed persons get well. Persons who have experienced serious symptoms may need to be hospitalized.

Are any future health effects likely to occur?

A single small exposure from which a person recovers quickly is not likely to cause delayed or long-term effects. After a serious exposure, symptoms may worsen for several hours and respiratory and neurologic alterations may persist for long time.

What tests can be done if a person has been exposed to diborane?

Specific tests for the presence of diborane in blood or urine generally are not useful to the doctor. If a severe exposure has occurred, blood and urine analyses and other tests may show whether the upper respiratory airways and lungs or brain have been injured. Testing is not needed in every case.

Where can more information about diborane be found?

More information about diborane can be obtained from your regional poison control center, your state, county, or local health department; the Agency for Toxic Substances and Disease Registry (ATSDR); your doctor; or a clinic in your area that specializes in occupational and environmental health. If the exposure happened at work, you may wish to discuss it with your employer, the Occupational Safety and Health Administration (OSHA), or the National Institute for Occupational Safety and Health (NIOSH). Ask the person who gave you this form for help in locating these telephone numbers.

Follow-up Instructions

Keep this page and take it with you to your next appointment. Follow *only* the instructions checked below.

Call your doctor or the Emergency Department if you develop any unusual signs or symptoms within the next 24 hours, especially:

- coughing or wheezing
- difficulty breathing, shortness of breath, or chest pain
- increased pain or a discharge from injured eyes
- increased redness or pain or a pus-like discharge in the area of a skin burn

No follow-up appointment is necessary unless you develop any of the symptoms listed above.

Call for an appointment with Dr. _____ in the practice of _____.

When you call for your appointment, please say that you were treated in the Emergency Department at _____ Hospital by _____ and were advised to be seen again in _____ days.

Return to the Emergency Department/ _____ Clinic on (date) _____ at _____ AM/PM for a follow-up examination.

Do not perform vigorous physical activities for 1 to 2 days.

You may resume everyday activities including driving and operating machinery.

Do not return to work for _____ days.

You may return to work on a limited basis. See instructions below.

Avoid exposure to cigarette smoke for 72 hours; smoke may worsen the condition of your lungs.

Avoid drinking alcoholic beverages for at least 24 hours; alcohol may worsen injury to your stomach or have other effects.

Avoid taking the following medications: _____

You may continue taking the following medication(s) that your doctor(s) prescribed for you: _____

Other instructions: _____

• Provide the Emergency Department with the name and the number of your primary care physician so that the ED can send him or her a record of your emergency department visit.

• You or your physician can get more information on the chemical by contacting: _____ or _____, or by checking out the following Internet Web sites: _____; _____.

Signature of patient _____ Date _____

Signature of physician _____ Date _____