

What are the symptoms of

## SULFUR MUSTARD

Exposure to sulfur mustard is usually not fatal. Depending on the severity of the exposure, symptoms may not occur for 2 to 24 hours.

Symptoms of moderate exposure include:

**Redness and itching of the skin followed by yellow blistering of the skin.**

**Irritation, swelling, tearing of the eyes, pain and even temporary blindness.**

**Runny nose, sneezing, hoarseness, bloody nose, sinus pain, shortness of breath, and cough.**

**Abdominal pain, diarrhea, fever, nausea, and vomiting.**

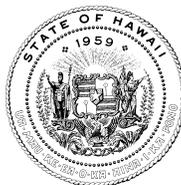
Large doses of sulfur mustard can cause fatal skin burning, chronic respiratory disease, repeated respiratory infections, permanent blindness or death. Exposure to sulfur mustard may increase a person's risk for lung and respiratory cancer.

For more information, call

**Aloha United Way**



[www.hawaii.gov/doh](http://www.hawaii.gov/doh)  
or  
[www.cdc.gov](http://www.cdc.gov)



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**SULFUR  
MUSTARD**

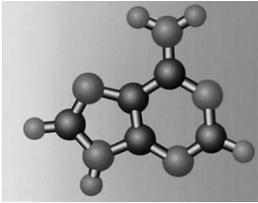
"Mustard Gas"

**POISON**

Hawaii State Department of Health  
[www.hawaii.gov/doh](http://www.hawaii.gov/doh)  
For more information or referral  
Call 2-1-1

## ***What is sulfur mustard (mustard gas)?***

Sulfur mustard refers to several man-made poisonous chemicals. These chemicals work as blistering agents and can seriously damage skin, eyes, throat, and lungs.



Sulfur mustard is more commonly known as “mustard gas”. This name “mustard gas” was first used when the chemical was sprayed during attacks in World War I. Sulfur mustard has nothing to do with mustard but gets its name from the yellow color and odor of mustard it may take on when mixed with other chemicals. Sulfur mustard is usually a colorless and odorless liquid when stored at room temperature. It can also be brown in color and smell like garlic or onions.

## ***What are the symptoms of sulfur mustard exposure?***

Exposure to sulfur mustard is usually not fatal. Depending on the severity of the exposure, symptoms may not occur for 2 to 24 hours.

Symptoms of moderate exposure include:

- Redness and itching of the skin followed by yellow blistering of the skin.
- Irritation, swelling, tearing of the eyes, pain and even temporary blindness.
- Runny nose, sneezing, hoarseness, bloody nose, sinus pain, shortness of breath, and cough.
- Abdominal pain, diarrhea, fever, nausea, and vomiting.

Large doses of sulfur mustard can cause fatal skin burning, chronic respiratory disease, repeated respiratory infections, permanent blindness or death. Exposure to sulfur mustard may increase a person’s risk for lung and respiratory cancer.

## ***How can people be exposed to sulfur mustard?***

- If released into the air as a vapor — people can be exposed through skin contact, eye contact, or breathing. Sulfur mustard vapor can be carried long distances by wind.
- If released into water — people can be exposed by drinking the contaminated water or getting it on their skin.
- By touching liquid sulfur mustard on contaminated objects or clothing.

Sulfur mustard can last from 1 to 2 days in the environment under average weather conditions and from weeks to months under very cold conditions.

## ***How can sulfur mustard exposure be treated?***

There is no antidote for sulfur mustard. However, exposure is rarely fatal. Treatment is based on the severity of symptoms.



Burns to skin are treated like thermal burns. Eyes must be flushed out as quickly as possible. Antibiotic eye drops may be used to prevent a secondary infection. Inhalation of sulfur mustard can be treated with medicines similar to asthma medicine if wheezing and shortness of breath is present. When lung damage is severe, an exposed victim may need to be placed on a respirator.

## ***How do you know if you were exposed?***

There is no rapid test available to determine sulfur mustard exposure. If you were present during the release of sulfur mustard and smelled garlic, onions, or mustard in the air and develop itchy skin or irritated eyes you may have been exposed. Seek prompt medical attention.

## ***What should you do if you were exposed to sulfur mustard?***

Immediately move to higher ground. Sulfur mustard is heavier than air and will settle in the low-lying areas. Quickly remove any clothing that has liquid sulfur mustard on it. If possible, seal the clothing in double plastic bags. Immediately wash any exposed part of the body (eyes, skin, etc.) thoroughly with plain, clean water. Eyes need to be flushed with water for 5 to 10 minutes. DO NOT cover eyes with bandages, but do protect them with dark glasses or goggles. If sulfur mustard has been ingested, DO NOT induce vomiting. Give the person milk to drink. Seek medical attention right away.



## ***Where is sulfur mustard found and how is it used?***

- Sulfur mustard is not found naturally in the environment.
- Sulfur mustard was introduced in World War I as a chemical warfare agent. Until recently, it was available for use in the treatment of a skin condition called psoriasis. Currently, it has no medical use.

More than a dozen countries have sulfur mustard in their chemical arsenals. U.S. stockpiles have been mandated by the Chemical Weapons Convention to be destroyed by April 2007.

## ***Can sulfur mustard affect pets and other animals?***



Yes. Sulfur mustard can harm pets and other animals. If you think your pet has been exposed seek prompt veterinary attention for the animal.