

Fact Sheet

Soman/GD

(Nerve Agent)

What is Soman?



Soman is a man-made chemical warfare agent classified as a nerve agent. Nerve agents are the most toxic and rapidly acting of the known chemical warfare agents. Soman is also known as “GD”.

Soman is a clear, colorless, tasteless liquid with a slight camphor odor (for example, Vicks Vapor Rub) or rotting fruit odor. It may become a vapor if heated and is not found naturally in the environment. Soman was originally developed as an insecticide in Germany in 1944.

Exposure

Exposure can occur by touching or drinking water or by eating food that has been contaminated with soman. If soman has been released into the air, a person may be exposed through inhalation, skin or eye contact. Contaminated clothing can release soman for about 30 minutes after contact with the vapor.

Health Effects

All nerve agents cause their toxic effects by preventing the proper operation of the chemical that acts as the body’s *off switch*, for glands and muscles. Without an *off switch*, the glands and muscles are constantly being stimulated. They may tire and no longer be able to sustain breathing function.

For immediate assistance, call the Poison Control Center Hotline: 1-800-222-1222.

Although soman has a camphor or rotting fruit odor, the odor may not be noticeable enough to give people sufficient warning about toxic exposure. People exposed to a low or moderate dose of soman by inhalation, ingestion, or skin absorption may experience some or all of the following symptoms within seconds to hours of exposure:

- § Runny nose or teary eyes
- § Small pinpoint pupils or blurred vision
- § Drooling
- § Confusion
- § Excessive sweating
- § Drowsiness
- § Coughing or chest tightness
- § Increased urination
- § Weakness
- § Headache
- § Nausea, vomiting and diarrhea
- § Slow or fast heart rate
- § Abnormally low or high blood pressure

Exposure to a large dose of soman by any route may result in loss of consciousness, seizures, paralysis, and respiratory failure that may lead to death.

Mild or moderately exposed people usually recover completely. Severely exposed people are not likely to survive.

Treatment

If a person has been exposed to soman, move quickly to an area where fresh air is available. Remove clothing by cutting off the body; do not pull clothes over the head. Quickly wash entire body with large amounts of soap and water.

If the eyes are burning or vision is blurred, rinse with plain water for 10 to 15 minutes. If wearing contacts, wash hands after removing clothes then remove contacts before rinsing eyes. If wearing glasses, remove and wash them with soap and water. It is okay to put glasses back on after they have been washed. Place contaminated clothes and contact lenses into a plastic bag and seal. Place bag into a second bag and seal.

If soman has been ingested, do not drink fluids and do not induce vomiting. Call 911 for medical attention right away after removal of contaminated items. If exposed, do not drive to the hospital because of the risk of becoming very ill on the way.



For more sources of information on this topic visit or contact:

ST. CLAIR COUNTY HEALTH DEPARTMENT www.scchealth.co

MICHIGAN DEPARTMENT OF HEALTH AND HUMAN SERVICES www.michigan.gov/mdhhs

CENTERS FOR DISEASE CONTROL AND PREVENTION www.cdc.gov

MICHIGAN DEPARTMENT OF COMMUNITY HEALTH TOXICS AND HEALTH HOTLINE: 1-800-648-6942

MICHIGAN OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (MIOSHA): 517-322-1814

AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY: www.atr.cdc.gov 1-888-422-8737