



HAZMAT FOR COPS

Awareness Level Training

LEARNING OBJECTIVES

- • identify a hazardous materials incident.
- • identify the specific challenges that are presented by incidents involving hazardous materials.
- • recognize the roles and responsibilities of a First Responder at the awareness level.
- identify the primary pathways in which a hazardous material can enter the human body, including:
 - inhalation
 - absorption
 - ingestion
 - injection
- identify precautions peace officers can take to protect themselves from contacting a hazardous material.

WHAT IT IS

A hazardous materials incident is any emergency involving the release or potential release of a hazardous material. Incidents involving hazardous materials can present risks to life. Some hazardous materials incidents may be catastrophic and endanger entire communities, while others may not appear significant but have the potential for long-lasting effects.

Hazardous materials incidents differ in the following areas:

- Not always reported as a hazardous materials incident
- Need to be handled slowly and methodically
- Need for specialized personal protective equipment and training
- Need to recognize many different communication systems
- Exposure symptoms may not materialize for years

IN A HAZMAT EMERGENCY, DISTANCE IS THE KEY FACTOR. PRESERVING AND PROTECTING IS THE PRIMARY FUNCTION OF LAW ENFORCEMENT. PEACE OFFICERS CAN EXPOSE THEMSELVES UNNECESSARILY TO HARMFUL MATERIALS BY RUSHING INTO A HAZMAT SCENE WITHOUT PROPER PRECAUTIONS.

CRIME & SAFETY



By Emilie Raguso,
April 3, 2019, 8:50 p.m.

Update: Fish and Wildlife officers investigate dead fish after chemical spill



Exposure Routes

Route	Explanation	Protective Actions
Inhalation (primary route of exposure)	Vapors and extremely fine particles can be inhaled and rapidly absorbed into the body through the lungs.	<ul style="list-style-type: none">• When possible, approach a potentially dangerous scene from upwind.• Stay alert to changes in wind direction.
Absorption	Absorption of a hazardous material through the skin or eyes may be possible if the material is splashed, spilled, or drifts onto an exposed area of the body (e.g., face, neck, back of hands).	<ul style="list-style-type: none">• If possible, remain upwind from a potentially dangerous scene.• Do not attempt to touch or move any unidentified materials.• Keep hands and clothing away from eyes.• Wash exposed areas frequently.

Exposure Routes

Route	Explanation	Protective Actions
Ingestion	A hazardous material can be accidentally swallowed when persons eat, drink, smoke, touch their mouths with their hands, or lick their lips.	<ul style="list-style-type: none">• Avoid eating, drinking, or smoking at a potentially dangerous scene.• Be cautious about touching anything that is suspicious.• Wash hands and face frequently.
Injection	Hazardous materials may enter the body if the skin is punctured at the scene.	<ul style="list-style-type: none">• Be cautious of sharp objects.

HAZMAT COMPOUNDS:

Gases

Liquids

Solids

- Trinitrotoluene (TNT)
 - Black Powder
 - Lead azide
 - ANFO
 - PETN


Explosives (Class 1)





Gases (Class 2)

- Anhydrous Ammonia
- Hydrogen Sulfide
- etc

A photograph of a large fire at night, with thick smoke rising into the dark sky. The fire is intense, with bright orange and yellow flames. In the foreground, there is a dark surface, possibly a road or a body of water, with a digital display showing the number '2 902'. The overall scene is dramatic and hazardous.

Flammable/Combustible Liquids (Class 3)

- Gasoline
- Alcoholic Beverages
- Hydrazine
- Toluene
- Acetone

Flammable Solids (Class 4)

- Aluminum phosphide
- Naphthalene
 - Sodium
 - Barium
 - Carbon

Oxidizers & Organic Peroxides (Class 5)

- Red Fuming Nitric Acid
 - Nitrogen tetroxide
 - Potassium nitrate
 - Calcium Nitrate
 - Fluorine

Poisonous & Infections Materials (Class 6)



- Hydrazine
- Nicotine
- Acrolein
- Fluorine
- Bromine

Radioactive Materials (Class 7)

- Uranium Hexafluoride
- Thorium



Corrosive Materials (Class 8)



- Red Fuming Nitric Acid
- Sodium hydroxide
 - Sulfuric Acid
 - Hydrazine
 - Bromine

Misc. Hazardous Materials (Class

9)

- Ammonium nitrate fertilizers
- Hazardous waste
 - Wheelchairs
 - Automobiles
 - Asbestos



WHAT MAKES THEM HAZARDOUS

LOCATIONS:

BAYER
UC BERKELEY
HOSPITALS
INDUSTRIAL AREAS
RAILROAD
SUICIDES
DRUG LABS

Officer Safety

There are a number of safety guidelines that First Responders at the scene of an incident should always follow.

- Do not rush to assist. Under most circumstances, First Responders at the awareness level are not adequately trained or equipped to conduct victim rescues.
- Be cautious, and treat materials as hazardous until identified and verified as nonhazardous.
- Approach incidents from uphill, upwind and upstream, if possible.
- Maintain a safe distance at all times.
- Never eat, drink or smoke in the incident area.
- Do not inhale, touch or ingest released materials. (Do not assume vapors are harmless due to lack of smell or taste.)
- Eliminate all ignition sources, including flares, near the incident.
- Continually reassess personal safety.
- Keep communication continually updated.

[https://www.youtube.com/watch?v=z
nQwAcOQffQ](https://www.youtube.com/watch?v=z
nQwAcOQffQ)

Arrival

The *first operational priority* at an incident is to isolate the incident scene and deny entry to any unauthorized people by establishing a command post and an inner perimeter.

A **perimeter** at a hazardous materials incident is an area which is secured far beyond the hazardous material release and which no one else can enter without proper authority. When in doubt go as large as practical.

The size of the perimeter is dependent on several factors including but not limited to:

- size and type of incident
- environmental factors
- personnel resources, etc.

The perimeter should be large enough to prevent exposure to any responding personnel or the public. It is important that First Responders set perimeters that they can control.

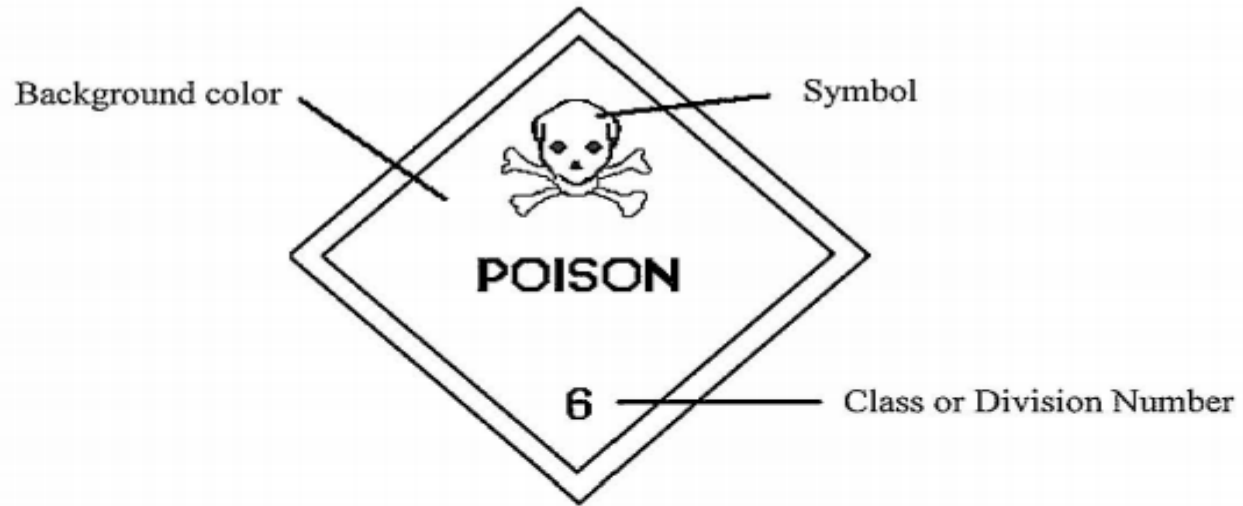
PPE

Realistically, you have none.

DECON

WATER...THAT'S IT.

Signs



EGRS-App



ERG 2016 12+

National Library of Medicine

#110 in Reference

★★★★★ 4.4, 19 Ratings

Free

