

VOLCANO



**COMMUNITY EMERGENCY
RESPONSE TEAM**

Hazmat Refresher

Volcano CERT

What is a hazardous material?

HazMat if it has any of these characteristics:

- Corrodes other materials
- Explodes or easily ignited
- Reacts strongly with water
- Unstable when exposed to heat or shock
- Toxic to humans, animals or environment

When CERTs see hazmat



Hazmat rule of thumb



HazMat includes but not limited to:

- Explosives
- Flammable gases and liquids
- Poisons and poisonous gases
- Corrosives
- Nonflammable gases
- Oxidizers
- Radioactive materials

What is an oxidizer?

- An oxidizing agent is a substance that can cause or contribute to the combustion of other material
- Oxidizers include oxygen, sulfuric acid, hydrogen peroxide, ozone and nitrous oxide

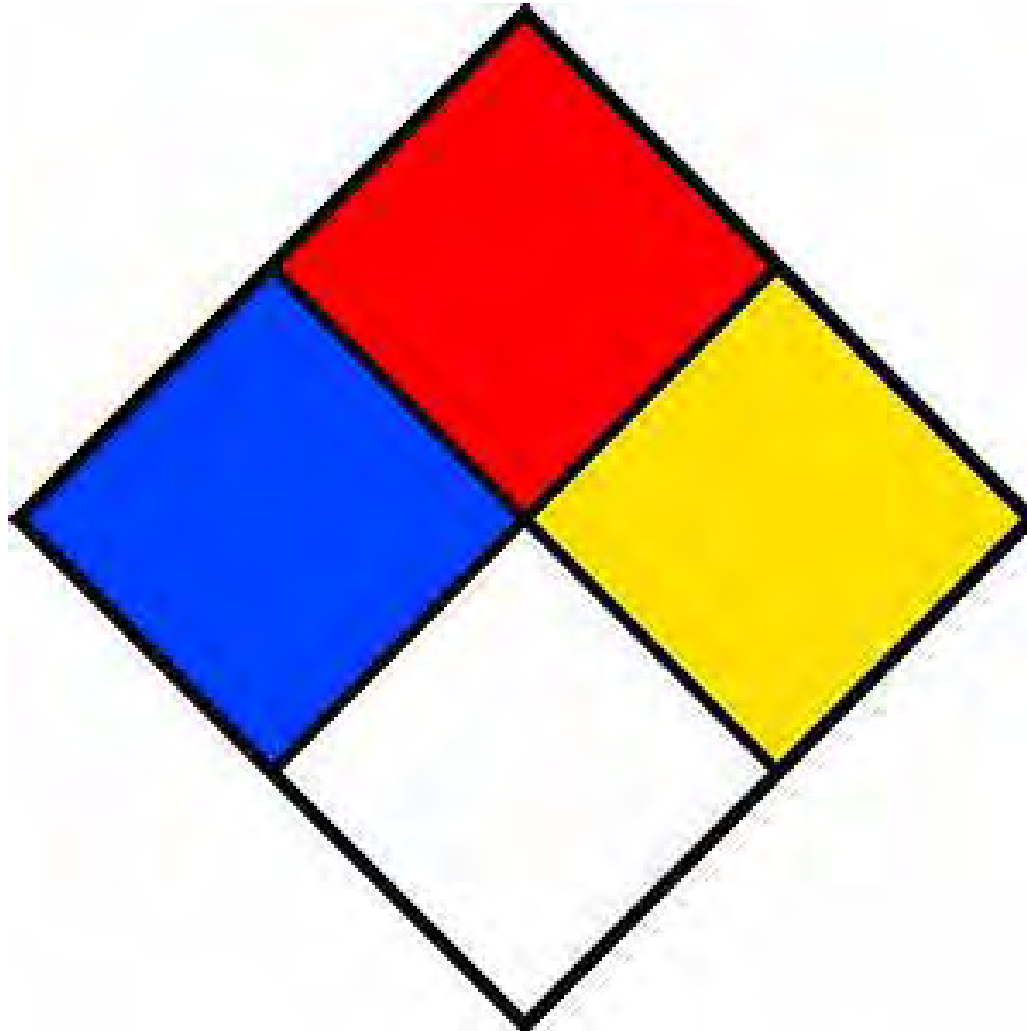
Identifying hazmat locations

- Location and type of occupancy
- Placards
- Sights, sounds and smells
- **ALWAYS STAY UPWIND AND UPHILL!**

Location and type of occupancy

- Industrial locations
- Military bases
- Dry cleaners
- Funeral home
- Home/farm supply store
- Big box store
- Delivery van – UPS, FedEx, USPS
- Private homes

NFPA 704 Placard – fixed locations



Health Hazard

- ④ Deadly
- ③ Extreme Danger
- ② Hazardous
- ① Slightly Hazardous
- ① Normal Material

Fire Hazard

Flash Points

- ④ Below 73 °F
- ③ Below 100 °F
- ② Between 100 °F and 200 °F
- ① Above 200 °F
- ① Will Not Burn

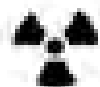
Specific Hazard

ACID - Acid

ALK - Alkali

COR - Corrosive

OXY - Oxidizer



- Radioactive



- Use No Water

Reactivity

- ④ May Detonate
- ③ Shock/Heat May Detonate
- ② Violent Chemical Change
- ① Unstable If Heated
- ① Stable

2

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1

ACID

NFPA 704 placard
that in this case also
includes the name of
the product and
safety precautions



NINE UN Hazmat classes

Nine Classes of Hazardous Materials

Class 1: Explosives

Divisions: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6



Class 6: Poison (Toxic) and Poison Inhalation Hazard

Class 2: Gases

Divisions: 2.1, 2.2, 2.3



Class 7: Radioactive

Class 3: Flammable Liquid and Combustible Liquid



Class 8: Corrosive

Class 4: Flammable Solid, Spontaneously Combustible, and Dangerous When Wet

Divisions 4.1, 4.2, 4.3



Class 9: Miscellaneous

Class 5: Oxidizer and Organic Peroxide

Divisions 5.1, 5.2

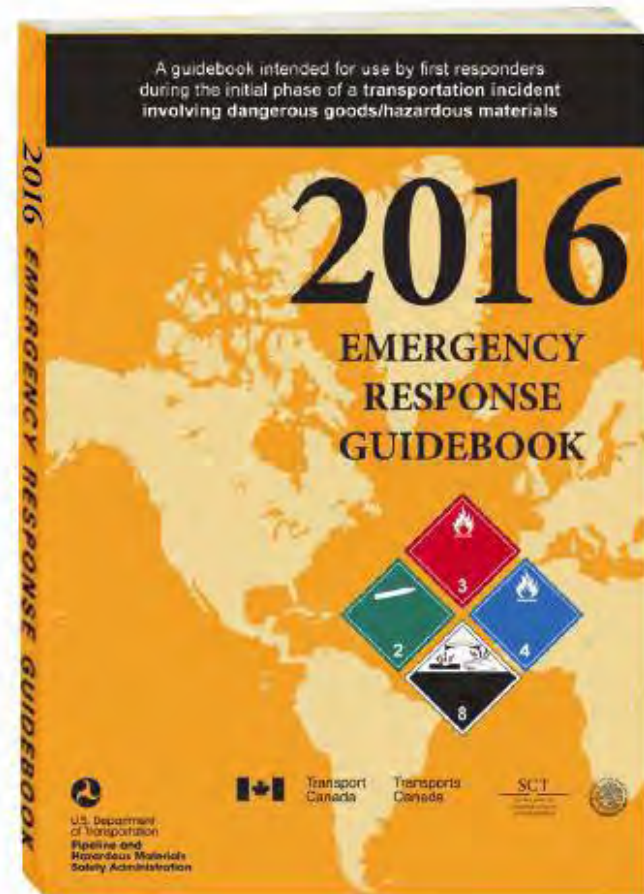


Dangerous

Revised 06/05

Emergency Response guidebook

Updated about every
3-4 years for all
modes of
transportation in
North America,
includes US, Canada
and Mexico



EMERGENCY RESPONSE GUIDE

- Numbers correspond to specific substances and recommended emergency actions
- This placard is for gasoline, small at bottom refers to UN HazMat class



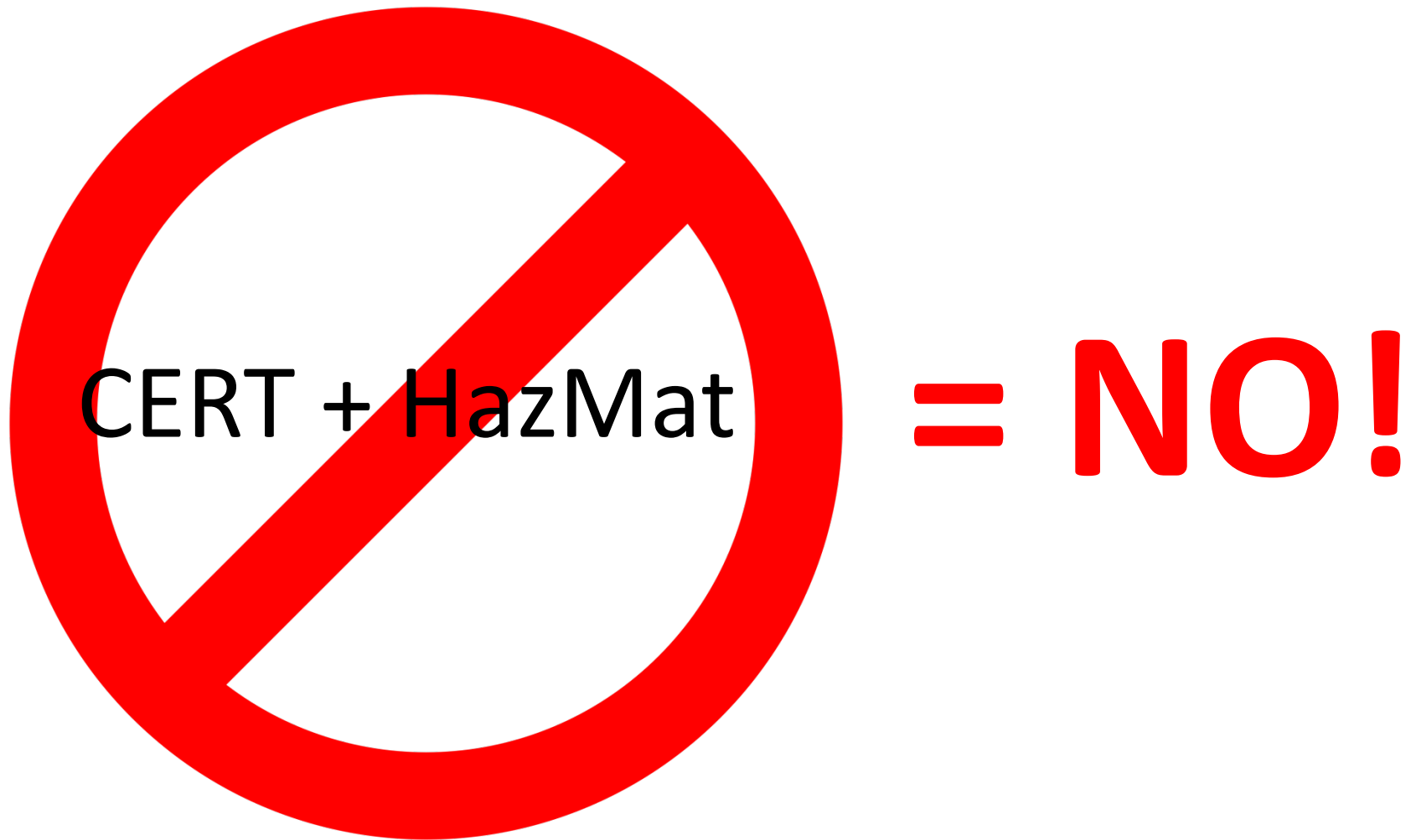
Hazmat Placarding

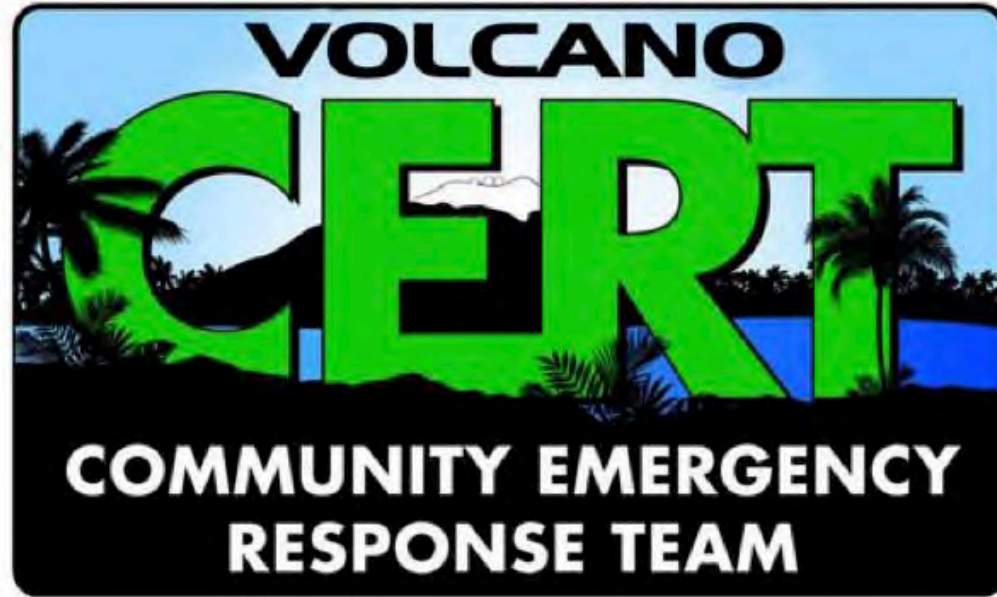
- No placard required for <1000 lbs. or a quantity of 1000 of many hazardous materials
- Certain materials are labeled differently domestically vs. international transport
- Sometimes drivers forget to change the placards when they change cargo

Sights, sounds & smells

- Gas plumes, smoke colors, flying debris, moving or stationary liquid, marked or unmarked containers, dead animals, others?
- Hissing of escaping gas or flaring fuel, roar of fire, popping, explosions, others?
- Odors – flammable gasses, rotten eggs, ammonia, gas or diesel fuel, others? – MAY BE ODORLESS!

summary





QUESTIONS?