

Palestinian Civil Defense Chemical Eng. Nasser jaber Ispra Italy 14-16 June 2017

Hazmat info. And Technology used to response for hazmat accidents.











Definition

Response Mechanism

HAZMAT

Hazmat Classification

Hazmat Locations

Hazard Associated with Hazmat

Definition of Hazardous Material

"Any substance or material in any form or quantity that poses an unreasonable risk to the safety and health and to property when transported in commerce."

U.S. Department of Transportation(DOT)



Definition of Hazardous Material

Hazardous substance means any substances which is very toxic, Flammable, explosive, and oxidizing

Definition of Hazardous Material Incident

The release, or potential release, of a hazardous material from its container into the environment



HAZARDOUS MATERIALS RESPONSE (HAZMAT) TEAM

An organized group of employees, designated by the employer, who are expected to perform work to handle and control actual or potential leaks or spills of hazardous substances



Hazmat Classification

9 Classes of Hazardous Materials

Classifications include the following:

Class 1 Explosives

Class 2 Gases

Class 3 Flammable liquids

Class 4 Flammable solid

Class 5 Oxidizer

Class 6 Poison

Class 7 Radioactive

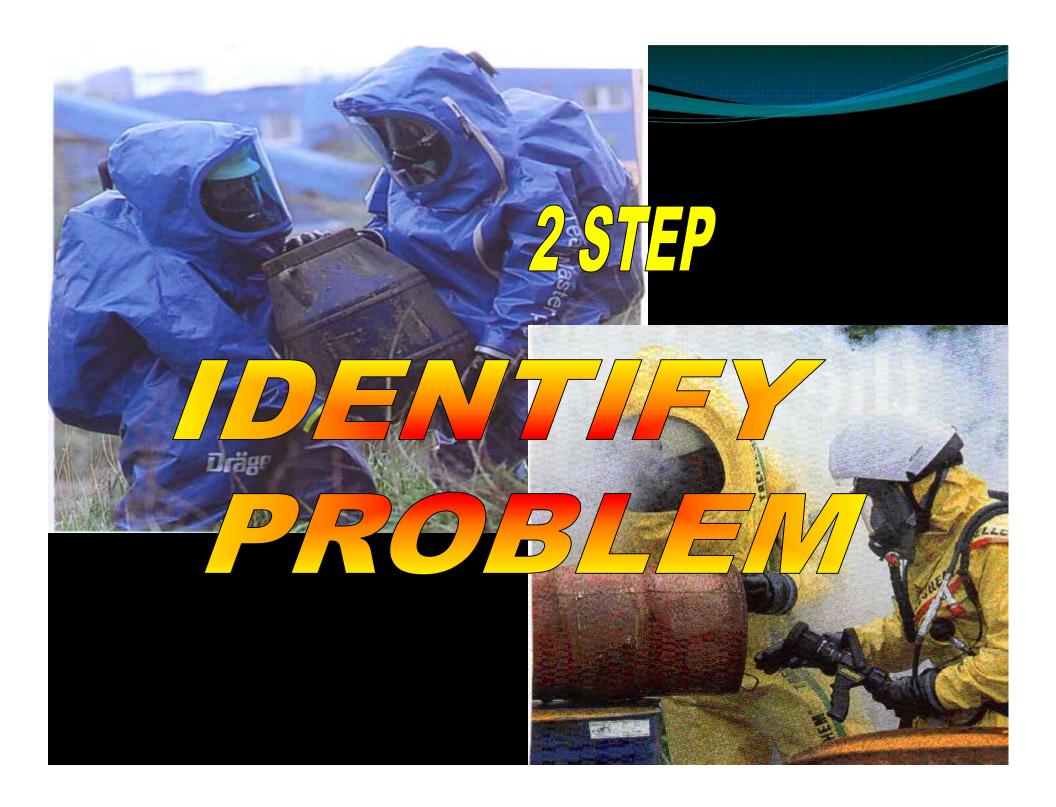
Class 8 Corrosive

Class 9 Miscellaneous









CHEMICAL **HAZARDS**



NFPA Haz-Mat **Quick Guide**



NFPA 704 HazMat' CLASSIFIC

HEALTH HAZARD

- 4-Deadly
- 3-Extreme danger
- Hazardous
- 1—Slightly hazardous
- 0-Normal material

- AR
- 4 Below 73 F
- 3-Below 100 F
- 2-Below 200 F
- - Above 200 F





SPECIFIC HAZARD

Radiation Hazard

Oxidizer OXY Acid ACID Alkali ALK Corrosive COR Simple Asphyxlant SA Use NO WATER

REACTIVITY

- 4-May detonate
- 3-Shock and heat may detonate
- 2-Violent Chemical change
- 1-Unstable if heated
- 0-Stable

(*Not intended to identify non-emergency health hazards)













7 STEP

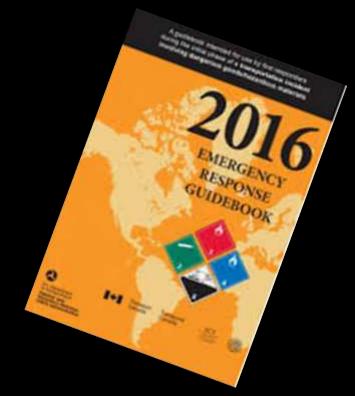


8 STEP

UN Number

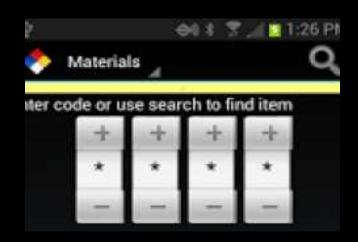
<u>UN numbers</u>: are four-digit numbers that identify dangerous goods, hazardous substances (such as explosives, flammable liquids, toxic substances, etc.).











Data given by Cargo Decoder

- POTENTIAL HAZARDS
- PUBLIC SAFETY
- 1. PROTECTIVE CLOTHING
- 2. EVACUATION
- EMERGENCY RESPONSE
- 1. FIRE
- 2. SPILL OR LEAK
- 3. FIRST AID