



AMMUNITION/EXPLOSIVE STANDARDS





BASIC MUNITIONS/EXPLOSIVE STORAGE STANDARDS



PERSONNEL AND EXPLOSIVES LIMITS



PROTECTION OF PERSONNEL



SAFETY HAND TOOLS



PERSONNEL RESPONSIBILITIES



FENCING, PLACARDING, AND ADMITTANCE TO EXPLOSIVE AREAS



GUARD PROTECTION



HOUSEKEEPING

- Waste Materials
- Cleaning
- Sweeping Compounds
- Explosives Recovery and Reuse



STANDING OPERATING PROCEDURES (SOPs)



ELECTRICAL STORMS



OPEN STORAGE OF MUNITIONS/EXPLOSIVES



ELEMENTS OF A WRITTEN FIRE PLAN

- Reporting the fire
- Directing orderly evacuation of personnel
- Notifying personnel in nearby locations of impending dangers
- Activating means of extinguishing or controlling the fire
- Meeting the firefighters and reporting details of the fire up to the time of their arrival



FIRE PREVENTION MEASURES AND REQUIREMENTS



FIREFIGHTING FACILITIES



FIREFIGHTING INSTRUCTIONS



FIREFIGHTING HAZARDS



FIRE SYMBOLS



EXCEPTIONS ON POSTING FIRE SYMBOLS



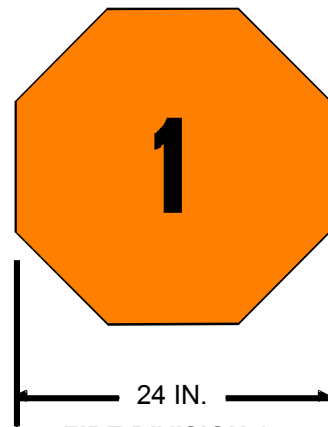
POSTING HAZARD SYMBOLS



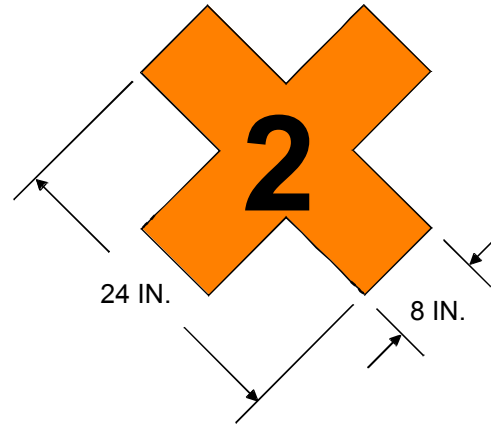
FIRE DIVISION NUMBERS

Fire Division Hazard Involved

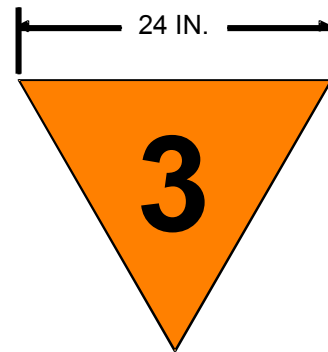
1. Mass detonation
2. Explosion with fragment hazard
3. Mass fire
4. Moderate fire



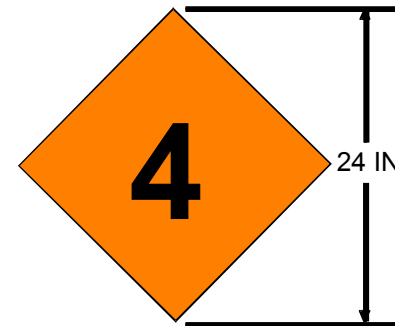
FIRE DIVISION 1
(HAZARD CLASS 1.1)



FIRE DIVISION 2
(HAZARD CLASS 1.2)



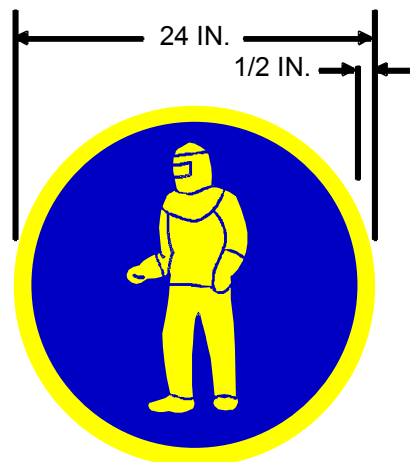
FIRE DIVISION 3
(HAZARD CLASS 1.3)



FIRE DIVISION 4
(HAZARD CLASS 1.4)

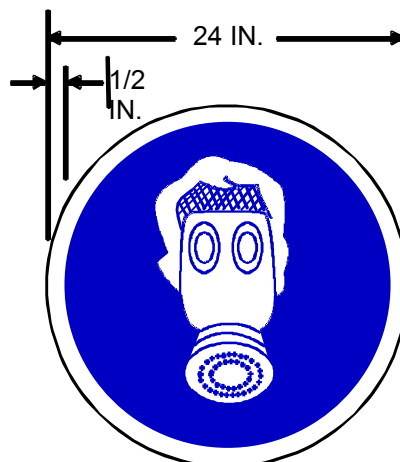
BACKGROUND: ORANGE NO. 12246 (SEE FED STD. 595A OR GSA CATALOG)

NUMBERS: 10 IN. HIGH AND 2 IN. THICK; BLACK NO. 17038 (SEE FED STD. 595A OR GSA CATALOG)



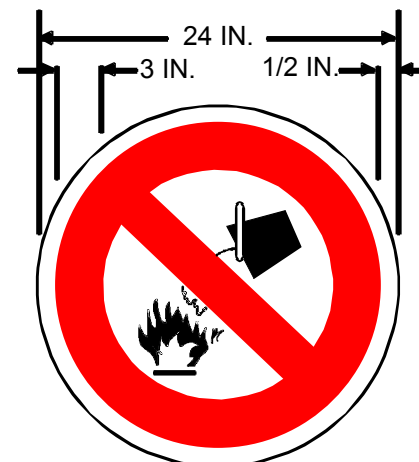
SYMBOL 1.
WEAR FULL PROTECTIVE CLOTHING

COLOR*:
BACKGROUND IS BLUE.
FIGURE AND RIM IS:
RED FOR SET 1 PROTECTIVE CLOTHING
YELLOW FOR SET 2 PROTECTIVE CLOTHING
WHITE FOR SET 3 PROTECTIVE CLOTHING



SYMBOL 2.
WEAR BREATHING APPARATUS

COLOR*:
BACKGROUND IS BLUE.
FIGURE AND RIM ARE WHITE.



SYMBOL 3.
APPLY NO WATER

COLOR*:
BACKGROUND IS WHITE.
CIRCLE AND DIAGONAL ARE RED.
FIGURES ARE BLACK.

***NOTE:**
COLORS PER FED STD 595 A
OR GSA CATALOG:
RED NO. 11105
BLUE NO. 15102
YELLOW NO. 13538
WHITE NO. 17875
BLACK NO. 17038



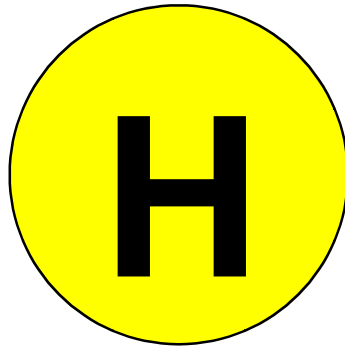
1. G-TYPE NERVE AGENTS



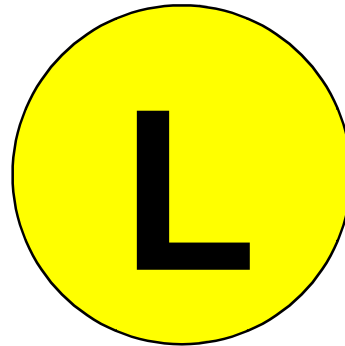
2. VX NERVE AGENT



3. INCAPACITATING AGENT BZ



4. H-TYPE MUSTARD AGENTS



5. LEWISITE

NOTE:
ALL SYMBOLS WITH 12 IN. BLACK LETTERS ON 24 IN. DIA.
YELLOW CIRCLE. (COLORS PER FED STD 595A: BLACK
NO. 17038, YELLOW NO. 13538)



FIREFIGHTING PROCEDURES



WITHDRAWAL DISTANCES FROM AN EXPLOSIVE FACILITY

Fire Symbol	Public Withdrawal (Distance Feet)	Special Requirements
1	105 W*1/3	Not less than 1250 feet for bulk explosives or not less than 4000 feet for fragmenting munitions
2	328 W*1/3	Not less than for fragmenting munitions
3	600	Use IBD for quantities greater than 500,000 pounds
4	300	



MUNITIONS STORAGE



STORAGE BY LOT NUMBER



STORAGE CONTAINERS



STORAGE OF SPECIFIC TYPES OF MUNITIONS

- Loose Munitions
- Liquid Munitions
- Chemical Munitions
- Pyrotechnics/Propelling Charges
- Improved Conventional Munitions (ICM)
- Rockets
- White Phosphorous (WP)



OUTSIDE STORAGE



MAGAZINES

- Earth-Covered Magazines
- Army Igloo Magazines
- Fusible Links
- Standard Munitions Magazines
- Above-Ground Magazines



STORAGE BUILDINGS



OUTSIDE STORAGE



QUANTITY-DISTANCE REQUIREMENTS



QUANTITY-DISTANCE TERMS

- **Quantity-Distance**
- **Permissible Exposures of Structures and Personnel to Blast Overpressures**
- **Inhabited Building Distance**
- **Public Traffic Route**
- **Intraline Distance**
- **Magazine Distance**
- **Fragment Distance**
- **Net Explosive Weight (NEW)**
- **Net Explosive Quantity (NEQ)**



QUANTITY OF EXPLOSIVES



SEPARATION OF OPERATING LINES AND MISCELLANEOUS BUILDINGS



YARDS

- Classification Yards
- Interchange Yards
- Holding Yards



SUSPECT CAR SPUR TRACKS



LOADING DOCKS



BARRICADES



QUANTITY-DISTANCE HAZARD CLASSIFICATION



Q-D FOR HILLSIDE UNDERGROUND MAGAZINES, AND CHEMICAL MUNITIONS



STORAGE COMPATIBILITY GROUPS



COMPATIBLE MUNITIONS AND EXPLOSIVES



CHEMICAL MUNITIONS



STORAGE COMPATIBILITY GROUPS



- Group A
- Group B
- Group C
- Group D
- Group F
- Group G
- Group H
- Group J
- Group K
- Group L
- Group S



MIXED GROUPS



HAZARD CLASSIFICATION AND COMPATIBILITY GROUPS



SUMMARY