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DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

## GRENADE, HAND AND RIFLE, SMOKE, WP, M34

Ref: SR 55-730-10, FM 21-40, FM 23-30, TM 3-250, TM 3-300, ICC Reg.

Headquarters, Department of the Army, Washington 25, D.C.

28 August 1959

### SAFETY PRECAUTIONS

Do not use the pull ring to lift or to handle the grenade.

Take cover immediately after throwing the grenade. The M34 grenade is a bursting grenade. Bursts will occur within 4 to 5 seconds after the safety lever is released. Fragments of white phosphorus and steel will cover a 35-yard radius.

If the safety lever of the grenade is released accidentally while the grenade is being held, throw the grenade and take cover immediately.

If the grenade is dropped with the safety pin removed, take cover immediately. If no shelter is near, drop flat on the ground with the helmet toward the grenade.

Do not strike the top of the fuze with a hard object as a blow may ignite the fuze.

Hold the safety lever firmly against the body of the grenade until the grenade is thrown.

Do not attempt to launch the grenade from a rifle with service or blank ammunition. Use only the special grenade cartridge provided for this purpose.

See FM 23-30 for additional safety precautions to be observed when throwing or launching grenades.

1. **Scope.** This bulletin contains a description of the M34 WP (white phosphorous) smoke hand and rifle grenade and instructions for its use, shipment, and storage.

2. **Use.** The M34 grenade (fig. 1) is a bursting-type munition to be used as an antipersonnel munition and to produce smoke for screening. It is also an incendiary.

3. **Description.** *a. General.* The M34 WP smoke hand and rifle grenade (fig. 1) is a cylindrical steel container filled with WP and fitted with an M206A2 detonating fuze. The fuzed grenade weighs approximately 1½ pounds. It is approximately 2½ inches in diameter and 5½ inches long.

2 *b. Body.* The body of the grenade (6, fig. 2) is a cylindrical container made of 18-gage steel. The body is scored by grooves. Upon bursting, the body breaks into fragments along the grooves, thus increasing the antipersonnel effect of the grenade. A fuze well (7) in the center of the

grenade is threaded to receive the fuze (1) which incorporates a bursting charge (8). The body is tapered at the bottom so that the grenade can be mounted on an M1A2 grenade projection adapter. The claws of the adapter engage in a deep groove which runs around the body.

*c. Filling.* The grenade body is filled with about 15 ounces of WP (5).

*d. Fuze.* An M206A2 detonating fuze is screwed into the fuze well (7). The M206A2 fuze is similar to the M201A1 igniting fuze (TM 3-300) but has a high-explosive burster instead of an ignition mixture. An asbestos gasket (4) provides a seal for the joint between the fuze well and the fuze. A safety pin (2) with a pull ring attached holds the safety lever (3) in the safe position.

4. **Operation and Functioning.** *a. Throwing the Grenade.* Hold the grenade in the throwing hand with the fingers perpendicular to the axis of the grenade and the ball of the thumb pressed tightly

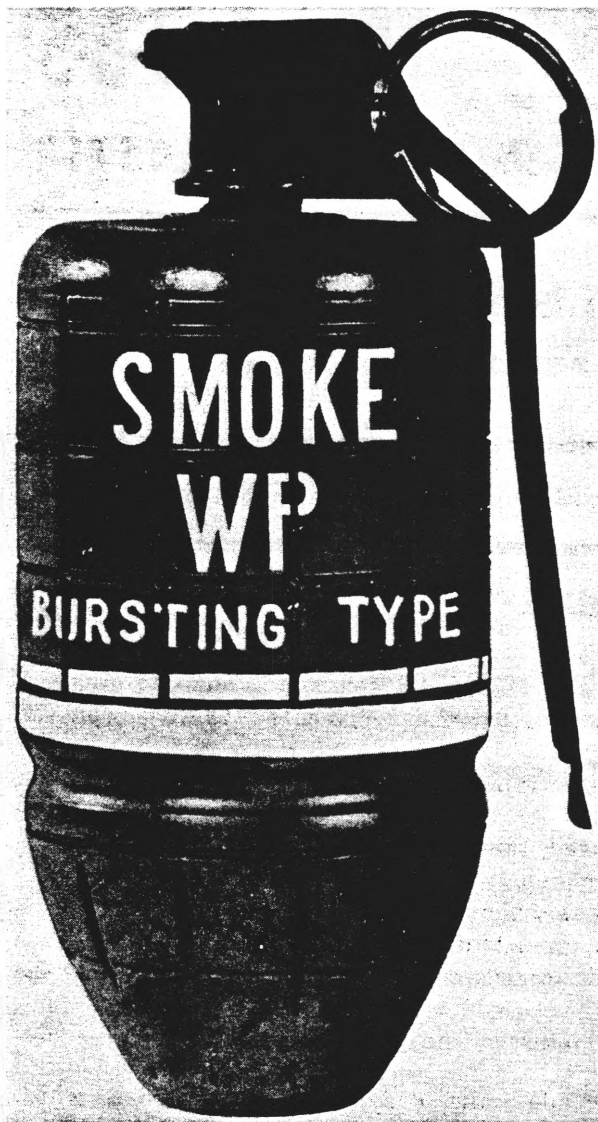
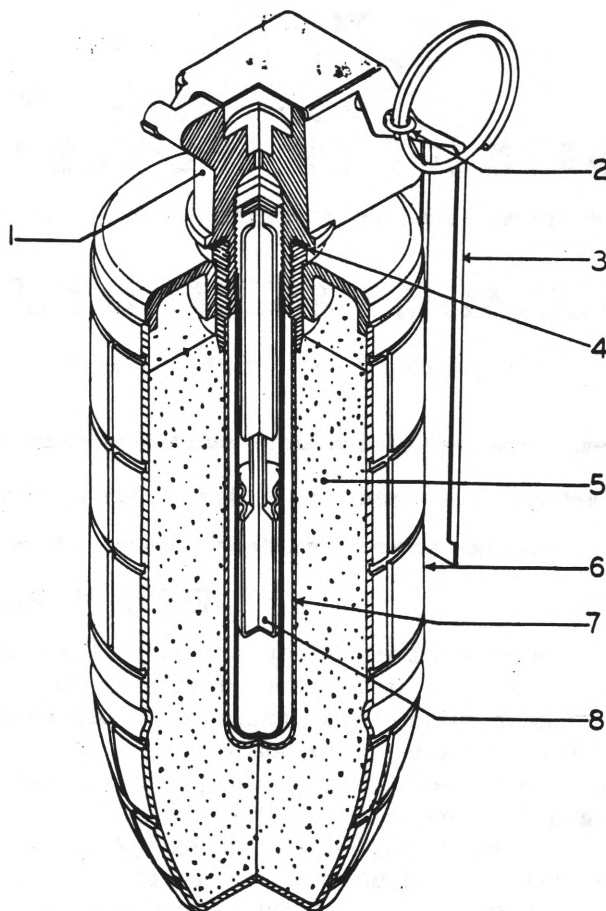


Figure 1. M34 WP smoke hand and rifle grenade.

across the safety lever. Remove the safety pin by pulling the pull ring with the free hand, and throw the grenade. (See FM 23-30 for additional instructions for throwing the grenade.) When the grenade is thrown, the striker, driven by a striker spring, pushes the safety lever free of the fuze and strikes the primer. The primer ignites a delay charge which, after a 4- to 5-second delay, explodes the bursting charge. The bursting charge shatters the grenade and scatters WP particles and steel fragments over a 35-yard radius.

**Warning:** For safety reasons, during training throw the grenade so as to burst at least 35 yards from personnel.

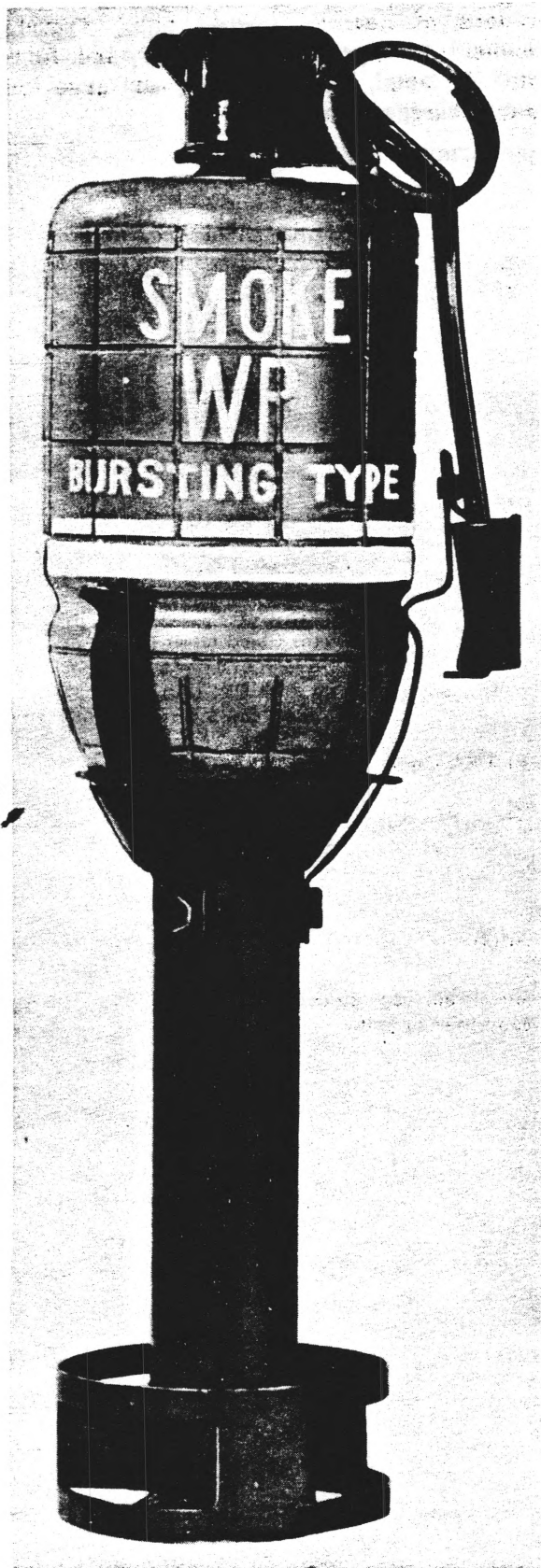


- |                    |                    |
|--------------------|--------------------|
| 1. Fuze            | 5. WP filling      |
| 2. Safety pin      | 6. Body            |
| 3. Safety lever    | 7. Fuze well       |
| 4. Asbestos gasket | 8. Bursting charge |

Figure 2. M34 WP smoke hand and rifle grenade, sectionalized view.

**b. Launching the Grenade.** The grenade can be launched from a rifle by using the M1A2 grenade projection adapter (fig. 3 and FM 23-30). To mount the grenade in the adapter, insert the fuze safety lever in the arming clip on the adapter, engage the claws of the adapter in the deep groove on the grenade body (fig. 3), and slide the arming clip forward as far as possible. The arming clip is held in the forward position by friction. Just before launching the grenade, remove the safety pin by pulling the pull ring, being careful not to move the arming clip. When the grenade is launched, inertia forces the arming clip past the retaining tab; this action releases the safety lever which allows the fuze to function.

**Warning:** Use only grenade cartridges for firing the grenade from a rifle.



*Figure 3. M34 grenade mounted on M1A2 projection adapter.*  
TAGO 1428A

**5. First Aid.** Treat burns caused by WP in the same way as ordinary burns (FM 21-40). If particles of WP are embedded in the flesh, immerse the wound in water or pack with cloths wet with water to halt combustion, and pick or squeeze out the WP. The particles will reignite spontaneously if allowed to dry. Copper sulfate solution, if available, will halt combustion of the WP particles when applied to them, permitting them to be removed without igniting.

**6. Marking.** The body of the M34 grenade is painted gray with one yellow band. SMOKE WP BURSTING TYPE, and the loader's identification mark, lot number, and date of filling are marked on the body in yellow.

**7. Packing and Shipping.** The grenade is packaged in a sealed cylindrical metal container. Nomenclature, loader's identification mark, lot number, and date of filling are stenciled on the container in yellow. Sixteen packaged grenades are packed for shipment in a wood box, which displaces 0.7 cubic foot. Shipping weight of the box and grenades is 42 pounds. Army regulations and Interstate Commerce Commission (ICC) regulations govern the shipment of chemical munitions within the zone of the interior. Oversea shipments should be made in compliance with instructions contained in SR 55-730-10 and TM 3-250.

**8. Storage.** The M34 grenade is classified for storage purposes as a group C chemical munition and must not be stored with chemical munitions of any other group or with any other type of munition or munition component. Store grenades in the wood shipping box in a dry, fire-resistive magazine preferably of the igloo or Corbetta type. Protective equipment, consisting of flameproof gloves, coveralls, and safety goggles, must be worn by storage personnel handling WP-filled munitions. See TM 3-250 and TM 3-300 for detailed information on storing chemical ammunition.

**9. Destruction To Prevent Enemy Use.** *a.* When M34 grenades are in danger of being captured by an enemy, authority to destroy them must be obtained from the responsible commander.

*b.* Destroy the grenades by burning them in a pit or defiladed location. Pile them with flammable material such as brush or dunnage.

Pour gasoline over the pile and ignite from a safe distance.

**Warning:** Be sure that the smoke produced by the burning WP does not interfere with

operations of nearby tactical units. Provide personnel with protection from WP and fragments of metal, since the heat will cause the bursting charge to detonate.

By Order of *Wilber M. Brucker*, Secretary of the Army:

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For explanation of abbreviations used, see AR 320-50.

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