SKILLSIGNAL™
Construction Safety & Compliance

TOOLBOX TALK

The Exploding Bomb: The Symbol You Should Almost Never See, and What to Do When You Do

TOPIC NO.	DURATION	AUDIENCE
HC-06	10 to 15 min	All Crew

OSHA REFERENCE 29 CFR 1910.1200 Appendix B & C · 29 CFR 1926 Subpart U · 29 CFR 1926.302(e)

PROJECT / JOBSITE	DATE	PRESENTED BY

01 THE HOOK

START HERE

Of the nine pictograms, this is the one you will see least and respect most. The exploding bomb does not mean "could catch fire." It means the product can go from a solid or liquid sitting on a shelf to a shock wave, fire, and shrapnel in a fraction of a second, with no fire needed to start it. Sometimes a drop does it. Sometimes a bump. On most construction sites, the only place you will find it is a box of powder-actuated tool loads or a blasting magazine. But self-reactive chemicals and organic peroxides carry it too, and those show up in resins, hardeners, and catalysts that look like any other can.

02 WHAT THE SYMBOL COVERS

EXPLODING BOMB

EXPLOSIVES, SELF-REACTIVES, AND ORGANIC PEROXIDES

Under **1910.1200 Appendix C**, the exploding bomb goes on **explosives** (unstable explosives and Divisions 1.1 through 1.4), on **self-reactive** substances Types A and B, and on **organic peroxides** Types A and B. The definition in Appendix B: a substance that is “in itself capable by chemical reaction of producing gas at such a temperature and pressure and at such a speed as to cause damage to the surroundings.” The three dangers are the **blast** (pressure wave), the **fire**, and the **projectiles**.

Type A self-reactives and organic peroxides get the bomb alone. Type B gets **the bomb and the flame** together on the same label. Types C through F get only the flame. If you see both symbols, the product can detonate and burn, and the hazard statement will say “Heating may cause an explosion” or “Heating may cause a fire or explosion.”

03 WHERE IT SHOWS UP ON A JOBSITE

◆ **POWDER-ACTUATED TOOL LOADS**
The .22 and .27 caliber charges for Hilti and Ramset style tools. Shipped as explosives Division 1.4. The box carries the bomb.

◆ **BLASTING AGENTS, DETONATORS, CAPS**
Anything in a magazine under 1926 Subpart U. Only licensed blasters handle it. Everybody else stays out.

◆ **ORGANIC PEROXIDE HARDENERS**
MEKP catalyst for fiberglass and polyester resin, benzoyl peroxide in some body fillers and concrete additives. Small bottles, big hazard.

◆ **SELF-REACTIVE CHEMICALS**
Certain foam blowing agents, azo compounds, and picric acid that has dried out. They decompose violently on heating or friction without any air.

◆ **DESENSITIZED EXPLOSIVES (NEW IN 2024)**
Explosives wetted or diluted so they can be handled. They carry the FLAME, not the bomb, but the SDS must explain how to confirm the wetting agent is still present. Dry out, and they become the bomb again.

◆ **AMMONIUM NITRATE UNDER CONFINEMENT**
Labeled as an oxidizer, not an explosive. But confined and heated, it detonates. Treat the oxidizer symbol with the same respect near a fire.

04 WHAT THE LABEL WILL TELL YOU TO DO

Typical precautionary statements under the exploding bomb. These are the manufacturer's instructions, and they are not optional:

☐ **Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.**

☐ **Keep only in original packaging.** Do not repackage, do not pour into another container, do not consolidate half-used boxes.

☐ **Do not subject to grinding, shock, or friction.** Dropping the box, dragging it, or stepping on a load can set it off.

☐ **Keep or store away from clothing and other combustible materials.**

☐ **Store at temperatures not exceeding** the limit on the label. Organic peroxides often say 70°F or lower. A truck cab in August is not storage.

☐ **Wear protective gloves, eye protection, and face protection** when handling.

☐ For powder-actuated loads specifically, **29 CFR 1926.302(e)**: only **trained and certified operators**, loads of the correct power level, tools never left loaded, and loads and tools **never left unattended** where unauthorized people can reach them.

⚠ **IF IT HAS THE BOMB AND YOU DID NOT EXPECT IT, STOP**

An old, crystallized, dried-out, or damaged container with an exploding bomb on the label is not a cleanup task. Do not move it. Do not open it. Do not "see if it is still good." Picric acid that has dried out and some peroxides that have aged can detonate from the friction of unscrewing the cap. Clear the area, tell the supervisor, and get a qualified person or the fire department's hazmat unit to handle disposal.

05 WHY IT MATTERS

[JOBSITE]

FOR THE CREW

Most crews will only ever see this symbol on a box of tool loads. That is exactly why it gets ignored: it is “just the Ramset box.” Those loads are classified explosives, and OSHA treats a powder-actuated tool like a firearm for a reason. Storage, training, and never leaving them lying around are the whole program.

[INDIVIDUAL]

FOR YOU

This symbol is the one where “a little bit” is enough. A single misfired load has killed workers. A bottle of catalyst in a hot truck has blown out a windshield. Read the storage temperature. Keep it in the original box. Keep it away from everything else.

[HOME]

FOR LIFE OFF-SITE

Fireworks, black powder for reloading, the old can of MEKP from a boat repair project. Same symbol, same rules. Cool, dry, original container, away from the kids and the heat.

06 TODAY’S DRILL

TODAY’S DRILL **FIND IT OR CONFIRM IT ISN’T HERE**

Walk the storage area, the gang box, and the tool trailer. Look specifically for the exploding bomb on any label, including the powder-actuated tool loads. For every one you find, check three things: original packaging, storage temperature per the label, and distance from any flammable or heat source. If you find a product with the bomb that is old, damaged, or not on the chemical inventory, do not touch it. Report it to the foreman.

07 CREW DISCUSSION

Take 2 minutes. Pick one.

1. Where are the powder-actuated tool loads stored on this site right now? Who can get to them?
2. Has anyone ever used an organic peroxide catalyst (fiberglass, body filler, resin)? Did you read the storage temperature on the label?
3. If you found an unmarked, crystallized bottle of something in an old job trailer, what would you do with it?

08 ATTENDANCE & SIGN-OFF

All attendees confirm they participated in this Toolbox Talk and understand the content covered.

NAME (PRINT)	SIGNATURE

SUPERVISOR SIGNATURE

_____ Date: _____

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