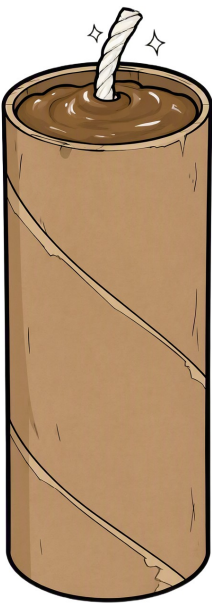


ILLUSTRATED STEPS / SAVE IT. FIND IT. BUILD IT.

# SMOKE BOMB

The classic sugar-and-saltpeter smoke maker: stump remover, sugar, a low cook and a cardboard tube, with fire safety at every step.



**FIRE SAFETY FIRST:**

**FULL RULES / PAGE 03**

**Outdoors, bare ground, water bucket ready. Never seal it; never throw it at anyone.**

Check local fireworks laws before you make or light one.

## START HERE

**01**

**GET READY**

Tools + clickable build map

**02**

**FOLLOW THE STEPS**

One clearly numbered stage at a time

**03**

**FIND IT AGAIN**

Quick reference + PDF bookmarks

Adults, outdoors, where it is legal. It makes thick white smoke, not a firework or a weapon, but it burns hot and can start fires.

NUKE ON TIKTOK

MORE FREE BUILD GUIDES

SOURCES / Wikipedia: Smoke bomb (sugar and potassium nitrate) · CPSC: fireworks safety

BUILD MAP

NEXT

# YOUR BUILD MAP

Tap a step to jump there. The printed page numbers work offline too.

## HAVE THESE READY

- Stump remover: potassium nitrate
- Plain sugar (or hard candy)
- Old skillet and wooden spoon
- Electric hot plate or camp stove
- Cardboard tube or open can
- Cotton string
- Jar of warm water for the fuse
- Bucket of water or a hose
- Eye protection, heat-proof gloves

## READ IN ORDER

|      |                              |    |
|------|------------------------------|----|
| PREP | Fire rules and a legal check | 03 |
| 01   | Get the oxidizer             | 04 |
| 02   | Add the fuel                 | 05 |
| 03   | Cook it down                 | 06 |
| 04   | Pack the tube and fuse       | 07 |
| NOTE | After the smoke              | 08 |
| NOTE | Sources and limits           | 09 |

QUICK REFERENCE / PAGE 10

## BEFORE YOU START

Adults, outdoors, where legal. Bare ground, water ready. Never seal it, throw it at anyone or relight a dud. Nothing but nitrate and sugar.

## KEEP THIS COPY

Save the PDF with its guide ID. Use the build map, bookmarks, or your PDF reader's search to find a step later. Video and source links need internet; the instructions do not.

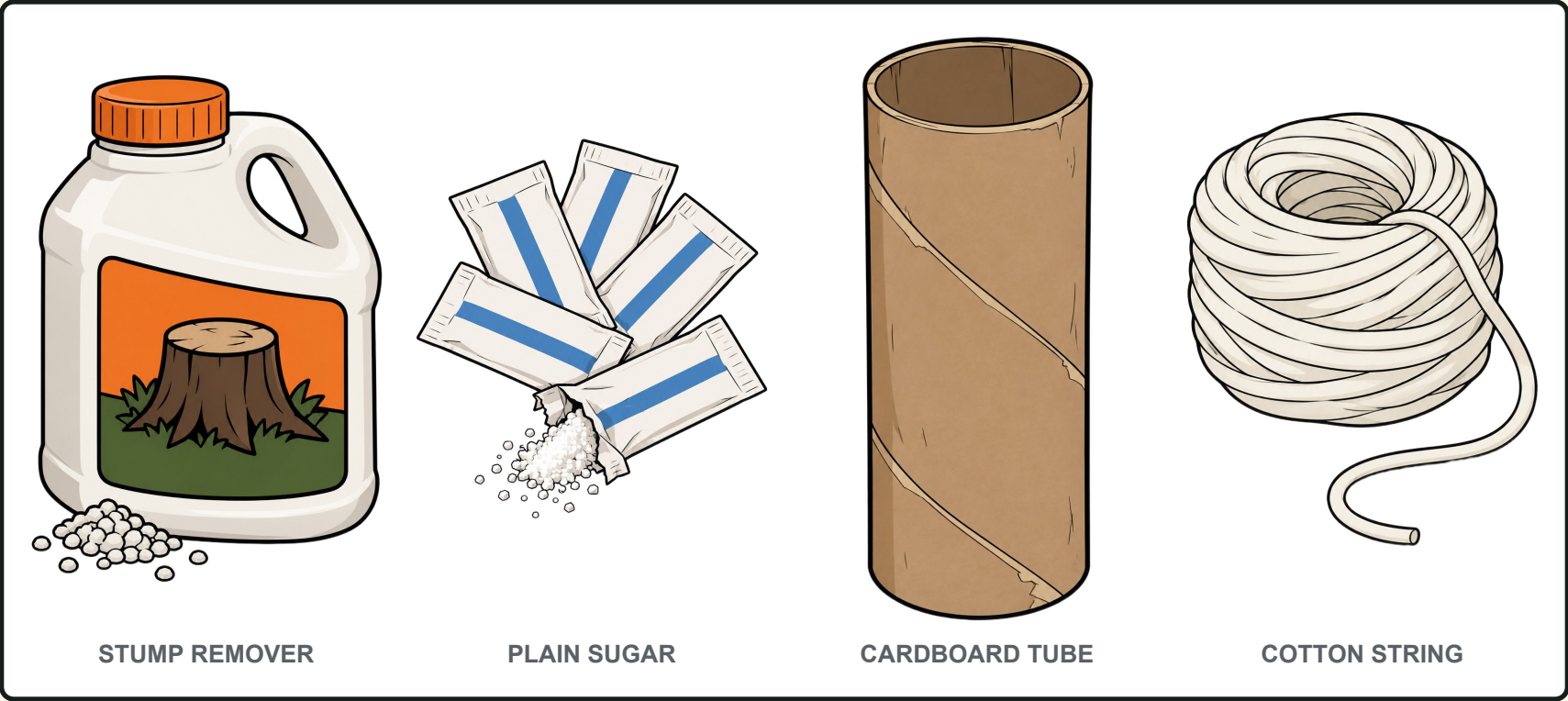
SETUP

Fire rules and a legal check

READ BEFORE STEP 01

PREP

Everything here is about controlling heat. Set up before you open a bag.



STUMP REMOVER

PLAIN SUGAR

CARDBOARD TUBE

COTTON STRING

STOP / BEFORE YOU START

- **Check local laws first: homemade smoke devices are banned in some places.**
- Work outdoors, away from buildings, dry grass and people, with a bucket of water or a hose ready.
- Wear eye protection, cotton clothes and heat-proof gloves.
- Use only stump remover labelled potassium nitrate, and plain sugar: add nothing else.

KEEP IT SMALL

- **Make one small batch at a time, about half a cup in total.**
- Store stump remover dry, sealed, and away from fuels and children.

SOURCES / CPSC: fireworks safety · NFPA: fireworks safety · Wikipedia: Potassium nitrate (stump remover, oxidizer)

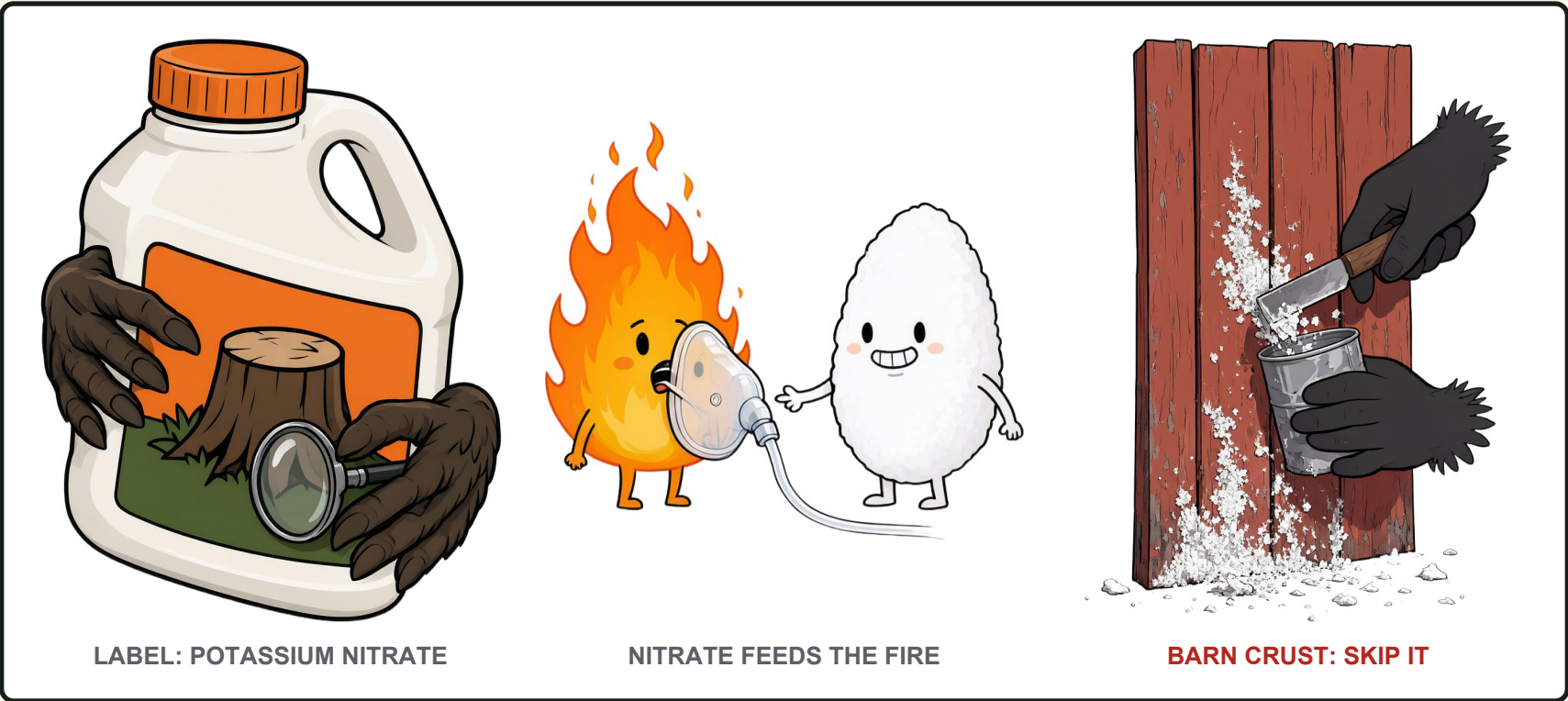
STEP

Get the oxidizer

1 OF 4 / READ IN ORDER

01

Potassium nitrate supplies the oxygen. The label decides whether it works.



READ THE LABEL

- **Buy granular stump remover whose label lists potassium nitrate.**
- Some brands use sodium metabisulfite instead; that will not work.
- Crush any lumps to a fine powder on their own, never together with the sugar.

WHY IT WORKS

- **Hot potassium nitrate releases oxygen, so the sugar can burn without enough air.**
- The white crust on old barn walls is mostly calcium nitrate and needs chemical conversion first; skip it.

SOURCES / Wikipedia: Potassium nitrate (stump remover, oxidizer) · Wikipedia: Niter (wall crusts, calcium nitrate)

STEP

Add the fuel

2 OF 4 / READ IN ORDER

02

Plain sugar is the fuel. The ratio is three to two.



SUGAR PACKETS



OR: HARD CANDY



3 PARTS TO 2 PARTS



STIR IN A COLD PAN

MEASURE AND MIX

- **Use plain table sugar; crushed hard candy works but melts stickier.**
- Measure 3 parts stump remover to 2 parts sugar, about 60:40 by weight; 3 scoops to 2 scoops of the same size is close enough.
- Stir them gently together in a cold skillet with a wooden spoon.

WHY IT WORKS

- **The sugar burns and the nitrate breathes for it, so the mix smoulders into thick smoke instead of flaming.**

SOURCES / Wikipedia: Smoke bomb (sugar and potassium nitrate) · Wikipedia: Potassium nitrate (stump remover, oxidizer)

STEP

# Cook it down

3 OF 4 / READ IN ORDER

03

Low heat melts the sugar and binds the mix into a paste.



LOWEST HEAT, OUTDOORS



STIR AS IT MELTS



PEANUT-BUTTER PASTE



TOO HOT: IT IGNITES

LOW AND SLOW

- **Outdoors, use the lowest setting of an electric hot plate or the lowest camp-stove flame.**
- Stir constantly.
- The sugar melts and the mix turns into a smooth, tan-to-brown paste like peanut butter.
- Take it off the heat as soon as it is smooth.

STOP / IF IT LIGHTS

- **Too hot, and it ignites in the pan with a burst of flame and smoke.**
- Keep your face and hands back and step away.
- Do not try to smother it with the spoon; let it burn out, and use the water on anything nearby that catches.

SOURCES / Wikipedia: Smoke bomb (sugar and potassium nitrate) · CPSC: fireworks safety

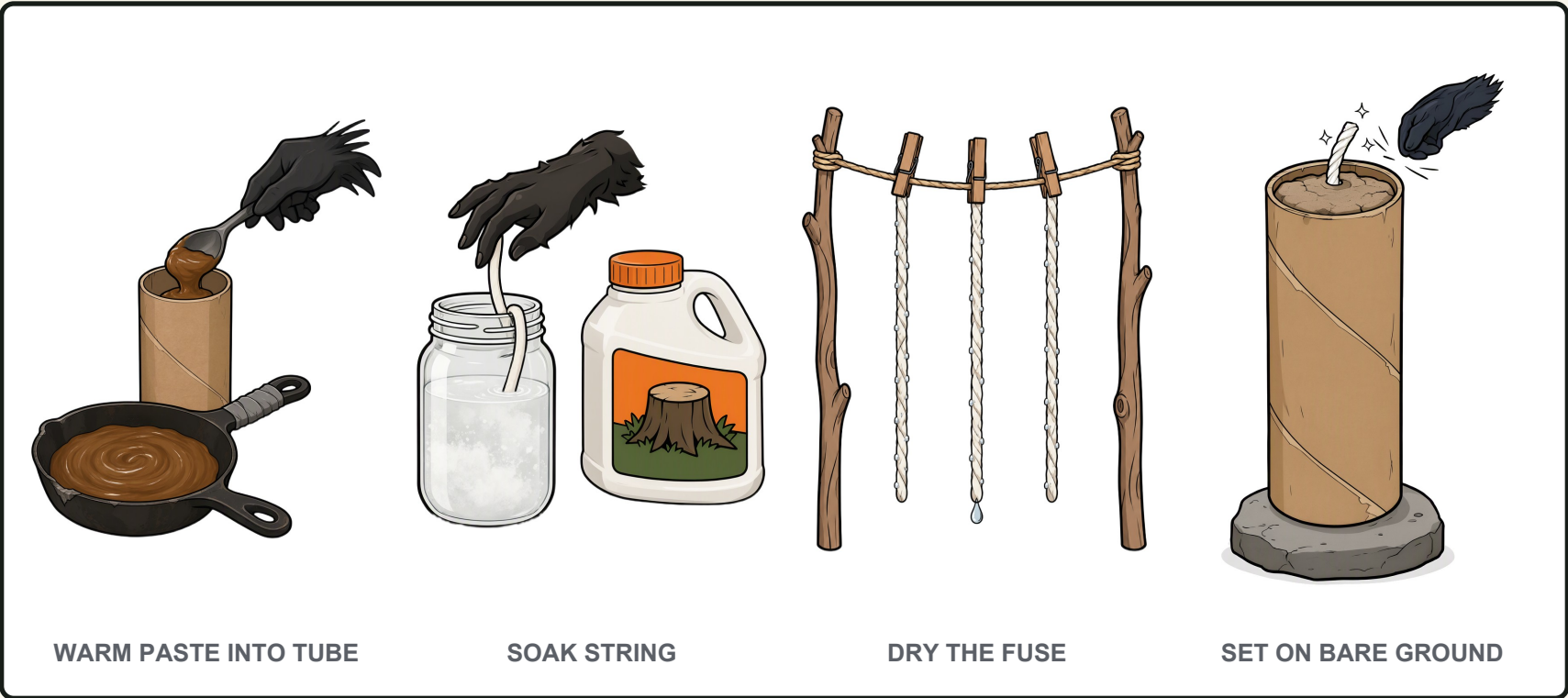
STEP

Pack the tube and fuse

4 OF 4 / READ IN ORDER

04

Warm paste goes into an open tube with a nitrate-soaked fuse.



FILL AND FUSE

- **While the paste is warm and soft, spoon it into a cardboard tube standing on a non-flammable surface, or into an empty, open-topped can.**
- Press a pencil hole into the top.
- Soak cotton string in warm water with stump remover dissolved in it, dry it fully, and push a piece into the hole.
- Let it harden for a few hours.

STOP / LIGHT IT SAFELY

- **Never seal or tape the top: it must vent.**
- Set it on bare dirt or gravel, light the fuse, and step back upwind.
- Never hold it or throw it at people, animals or buildings.
- A dud stays a dud: wait, then soak it in water; never relight it.

SOURCES / CPSC: fireworks safety · NFPA: fireworks safety · Wikipedia: Smoke bomb (sugar and potassium nitrate)

NOTE

After the smoke

KEEP THESE LIMITS WITH THE STEPS

REF

The tube stays hot long after the smoke stops.



WAIT, THEN SOAK IT



FACE BACK FROM THE PAN

- CLEAN UP
- Stay upwind; the smoke irritates eyes and lungs.
  - Wait until it is fully burnt out, then soak the remains in the water bucket before you throw them away.
- BURNS
- Cool a burn under cool running water for 20 minutes.
  - Get medical help for large or deep burns, or burns on the face or hands.

NOTE

# Sources and limits

KEEP THESE LIMITS WITH THE STEPS

REF

Checked October 3, 2026. Tap a source in the box to open it.

SOURCES / TAP A TITLE TO OPEN IT

**Wikipedia: Smoke bomb (sugar and potassium nitrate)**

[https://en.wikipedia.org/wiki/Smoke\\_bomb](https://en.wikipedia.org/wiki/Smoke_bomb)

**Wikipedia: Potassium nitrate (stump remover, oxidizer)**

[https://en.wikipedia.org/wiki/Potassium\\_nitrate](https://en.wikipedia.org/wiki/Potassium_nitrate)

**Wikipedia: Niter (wall crusts, calcium nitrate)**

<https://en.wikipedia.org/wiki/Niter>

**CPSC: fireworks safety**

<https://www.cpsc.gov/Safety-Education/Safety-Education-Centers/Fireworks>

**NFPA: fireworks safety**

<https://www.nfpa.org/education-and-research/home-fire-safety/fireworks>

**NHS: burns and scalds (first aid)**

<https://www.nhs.uk/conditions/burns-and-scalds/>

ABOUT THIS GUIDE

- **This is an editorial source review, not a tested recipe.**
- Burn time and smoke amount vary with the mix, the cook and the tube.
- Ratios stay approximate: about 60:40 by weight.

STOP / WHERE THIS GUIDE ENDS

- **Adults only, outdoors only, where legal.**
- Add nothing else to the mix, never seal it in a container, and never use it near people, roads, buildings or dry ground.

SOURCES / Wikipedia: Smoke bomb (sugar and potassium nitrate) · Wikipedia: Potassium nitrate (stump remover, oxidizer) · Wikipedia: Niter (wall crusts, calcium nitrate) · CPSC: fireworks safety · NFPA: fireworks safety · NHS: burns and scalds (first aid)

BUILD MAP

PREVIOUS

NEXT

# QUICK REFERENCE

Read the full steps first. Tap any row to return to its instructions.

BEFORE STEP 01

Adults, outdoors, where legal. Bare ground, water ready. Never seal it, throw it at anyone or relight a dud. Nothing but nitrate and sugar.

- 01

Get the oxidizer

Stump remover labelled potassium nitrate (not metabisulfite). Crush it alone, never with the sugar.

P04
- 02

Add the fuel

3 parts nitrate to 2 parts plain sugar, about 60:40. Stir gently together in a cold skillet.

P05
- 03

Cook it down

Outdoors, lowest heat, stir constantly until a smooth peanut-butter paste. Too hot: it ignites. Step back.

P06
- 04

Pack the tube and fuse

Warm paste into an open tube, dried nitrate-string fuse. Harden. Bare ground, light, step back upwind.

P07

NUKE SAYS

Smoke, not drama. Water bucket, not regret.

STOP / FIRE AND LEGAL RULES

FULL RULES / PAGE 03

- Legal where you are
  - Outdoors, bare ground
  - Water bucket ready
  - Eye protection, gloves
- Never seal the tube
  - Never throw at anyone
  - Never relight a dud
  - Nothing else in the mix

It burns hot and can start grass fires. Soak used tubes in water. Burns: cool running water for 20 minutes.

SOURCES / Wikipedia: Smoke bomb (sugar and potassium nitrate) · Wikipedia: Potassium nitrate (stump remover, oxidizer) · Wikipedia: Niter (wall crusts, calcium nitrate) · CPSC: fireworks safety · NFPA: fireworks safety · NHS: burns and scalds (first aid)