DEPARTMENT OF
ENVIRONMENTAL
HEALTH AND SAFETY

# EHS BULLETIN

NOVEMBER 2025

## IN THIS ISSUE



# PICRIC ACID SAFETY

Picric acid is an acidic phenol known for its explosive properties. It is a pale yellow, odorless liquid that is slightly soluble in water and can be hazardous when working in a laboratory. For example, dry picric acid undergoes vigorous reactions with both oxidizing and reducing agents. If mixed with a strong reducing agent, it may explode on contact or begin a vigorous reaction. When hydrated, picric acid is typically safe to handle, but it becomes a powerful explosive when dry (less than 10% water) and is highly sensitive to heat, shock, and friction.

### TIPS REGARDING THE USE OF PICRIC ACID:

- Keep its use to a minimum as a prudent practice due to the chemical's nature.
- Emphasize that picric acid should never be allowed to dry out.
- When necessary, it should only be handled inside a fume hood with signage stating "Danger: Picric Acid Used in this Area."
- Store away from metals, heavy metal salts, concrete, strong bases, reducing agents, oxidizing agents, ammonia, and other incompatible materials.
- Do not use metal spatulas to transfer picric acid.
- It is important to maintain the safety data sheet in the laboratory where picric acid is being handled.
- Personal protective equipment should be worn at all times while handling picric acid and should include the following:
  - Nitrile or neoprene gloves, with double-gloving procedures for concentrated solutions;
  - Chemical splash goggles;
  - Chemical-resistant face shield;
  - Laboratory apron, acid-resistant;
  - Laboratory coat; and
  - Closed-toed shoes, a long-sleeved shirt, and long pants.

Storage of picric acid should be in a dedicated plastic or polytetrafluoroethylene secondary containment. The reagent should be disposed of after two years or by the manufacturer's expiration date, whichever comes first.

### SPECIAL CONSIDERATIONS FOR DISPOSAL:

- Do not store in a metal container or a container with a metal cap;
- Picric acid waste should not be combined with other wastes;
- Utilize secondary containment; and
- Label the container with contents and the words "Hazardous Waste".

**For more information, questions, or to be added to the reuse contact group, call EHS at (405) 744.7241 or email us at ehs@okstate.edu.**

# BLACK ICE AWARENESS

Black ice is a thin layer of frozen water that is transparent and difficult to see. It is not actually black, but it can appear that way when it forms on asphalt, sidewalks or dark surfaces. Since it often looks like wet pavement rather than ice, it's important to use extra caution and assume slick spots may be present whenever temperatures are near freezing.

Because it's not an obvious hazard, black ice can form seemingly out of nowhere, making it incredibly dangerous. In the United States, black ice causes approximately 1,800 deaths and around 135,000 injuries annually.

Expect black ice when rain or snow melts and refreezes and during minor rain or even a heavy mist when the temperature is at or below freezing. Mornings and after dark are the worst times due to lower temperatures and poor lighting.

In the car, overpasses and bridges are always areas of concern because they are more susceptible to freezing. However, black ice can form on sidewalks, paved streets, bricked areas, cobblestone and even muddy pathways under the right conditions.

When it is wet and below freezing, try not to venture out. However, when necessary, follow the precautions below.

- Know the weather and adjust clothing and footwear accordingly;
- Go slow and watch your steps;
- Use appropriate footwear with good grip and traction;
- Treat walkways with sand or salt;
- Use handrails when available; and
- Take extra precautions in high-risk areas.

## MONTHLY TRAINING OPPORTUNITIES

**Respiratory Protection**
1st Tuesday of every month at 8:30 a.m.
FM North Building, Room 101C
Registration: email ohsp@okstate.edu

**Bloodborne Pathogen Training**
2nd Tuesday of every month at 9 a.m. and 2 p.m.
EHS Conference Room, 003 UHS
Registration: email chemicalsafety@okstate.edu**Fire**

**Safety w/Hands-On Extinguisher Training**
2nd Friday of every month at 9 a.m.
EHS Conference Room, 003 UHS
Registration: email ohsp@okstate.edu

**Monthly Employee Training**
3rd Thursday of every month at 9:30 a.m.
EHS Conference Room, 003 UHS
Registration: email ohsp@okstate.edu

**Laboratory Safety and Hazardous Waste Training**
4th Tuesday of every month at 8:30 a.m.
EHS Conference Room, 003 UHS
Registration: email ohsp@okstate.edu

## WHEN DRIVING:

- Never hurry under icy conditions. Plan your route carefully, and allow for extra time;
- Make sure your car is winterized, including having good tires;
- Give other vehicles more space than usual;
- Try to avoid movements like swerving, fast lane changes and sudden braking or accelerating.

On campus, if areas of black ice are noticed, please report them to Facilities Management work control so the area can be treated promptly and safely.

**For questions about black ice or winter weather safety, contact EHS at ehs@okstate.edu or (405) 744-7241.**