WELCOME TO OUR

Quarterly Safety Newsletter

we're so glad you're here!

HI, DID YOU KNOW?

Standards and Guidelines

OSHA CFR 1910.106(e)(6)(i, ii) states that "Adequate precautions shall be taken to prevent the ignition of flammable vapors. Sources of ignition include but are not limited to open flames, lightning, smoking, cutting and welding, hot surfaces, frictional heat, static, electrical and mechanical sparks, spontaneous ignition, including heat-producing chemical reactions, and radiant heat. Category 1 or 2 flammable liquids, or Category 3 flammable liquids with a flashpoint below 100 °F (37.8 °C), shall not be dispensed into containers unless the nozzle and container are electrically interconnected".

Hazard and Risk Alert

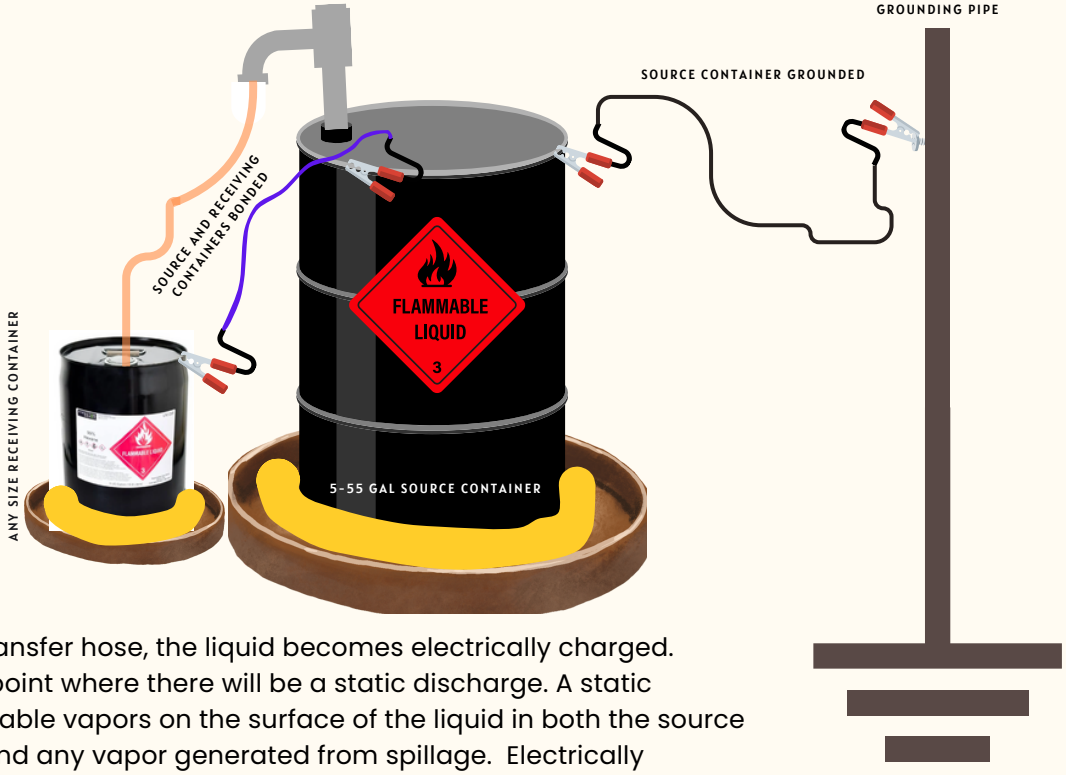
FLAMMABLE LIQUIDS ARE DANGEROUS!

Flammable liquid is any liquid having a flashpoint at or below 199.4 °F (93 °C). Many common laboratory solvents such as ethanol, methanol, acetone, hexane, and others have very high vapor pressure (volatile) and flashpoints below 100 °F. When a flammable liquid is released from its container, vapors can accumulate, which, when mixed with air at a ratio within the flammable range, would cause fire and explosion at or below room temperature. This may occur when dispensing from a flammable liquid container (5-55 gal) or when large volume of flammable liquids are spilled outside of a fume hood. In addition to fire and explosion risks, some flammable liquids are toxic and/or have target organ specific effects.

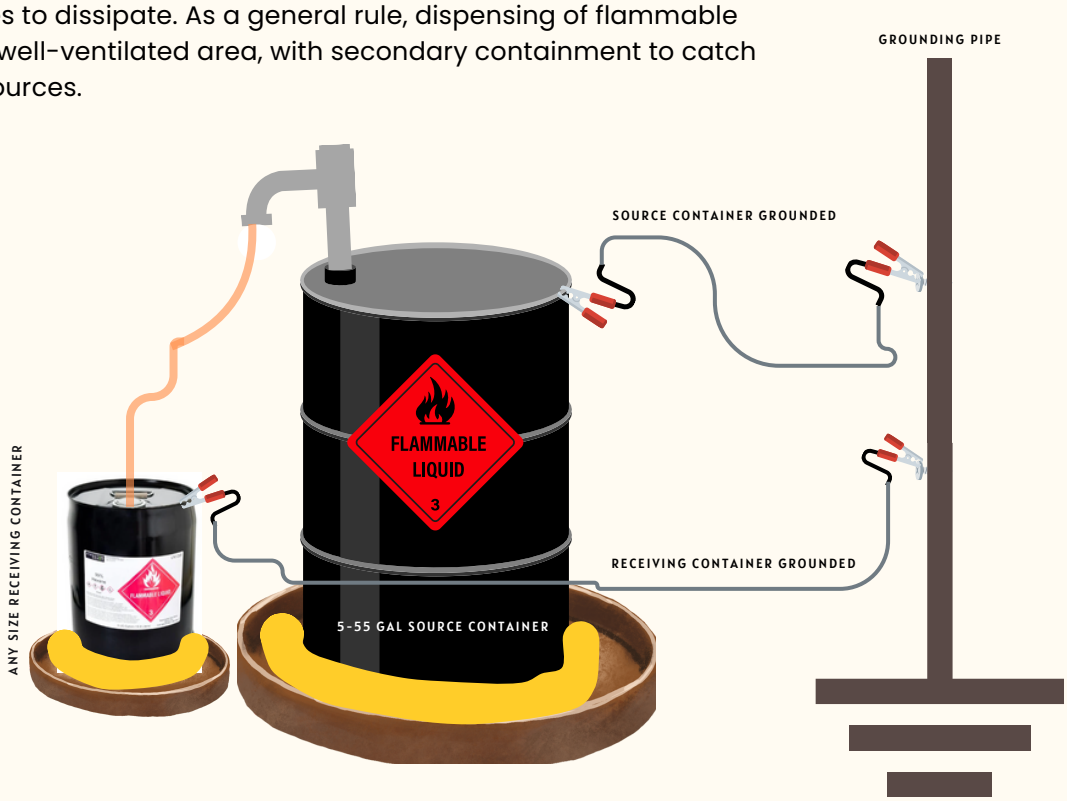
TAKE CONTROL of FLAMMABLE VAPORS

GROUND, BOND, VENTILATE, PREVENT SPILLS, ELIMINATE IGNITION SOURCES

When dispensing flammable liquid from 5-55 gal source containers, ground the source container and either bond the receiving container to the source container (1st figure) or ground the receiving container to the same grounding pipe as the source container (2nd figure).



As liquid passes through the transfer hose, the liquid becomes electrically charged. Charges will accumulate to a point where there will be a static discharge. A static discharge will ignite the flammable vapors on the surface of the liquid in both the source and the receiving containers and any vapor generated from spillage. Electrically connecting the source and receiving containers by bonding will allow the electrical charges to equalize and prevent any static discharge. Grounding the source container or both containers will allow the charges to dissipate. As a general rule, dispensing of flammable liquids must be performed in a well-ventilated area, with secondary containment to catch spills, and away from ignition sources.

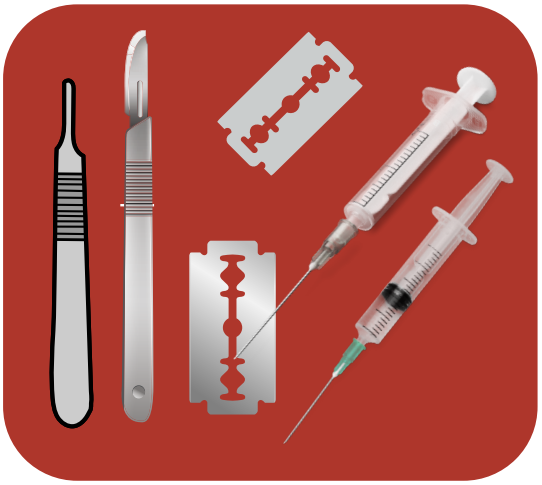


PREVENT SHARPS INJURY

LABORATORIES WORKING WITH BIOLOGICAL AGENTS
(Regardless of sharp contamination)

- Do not recap needles.
- Do not bend, break, or remove needles from disposable syringes.
- Dispose sharps in red biohazard-labeled sharps containers.
- Fill containers to fill line; do not overfill.
- Once filled, close and place sharps container in biohazard box.
- Place non-disposable sharps in hard-walled container for transport and decontamination.

Sharps include any device or item capable of cutting or piercing the skin or a biohazard waste autoclave bag.



All OTHER LABORATORIES NOT WORKING WITH BIOLOGICAL AGENTS

- Do not recap needles.
- **Sharps contaminated with hazardous chemicals**- dispose in leak proof, puncture-resistant container. Label “Chemically-contaminated Sharps”. Call EH&S for pick-up.
- **Non-contaminated sharps** - Collect in tall, rigid, puncture-resistant container. Contact jlocke@mailbox.sc.edu for questions regarding disposal.

Program Updates

YOU CAN FIND DETAILS ON OUR WEBSITE!

Methylene chloride standard
Safety Stratus chemical inventory system
Excel template for formatting spreadsheets for upload to Safety Stratus
Access the new Compressed Gas Safety training
Access the new Personal Protective Equipment training
Report incidents and unsafe conditions online

SEE FULL CASE STUDY

ON-GOING

ANNUAL INSPECTIONS

Annual lab safety inspections in 2024 focus on safety equipment testing, standard operating procedures, and personal protective equipment.

FIND THE CHECKLISTS

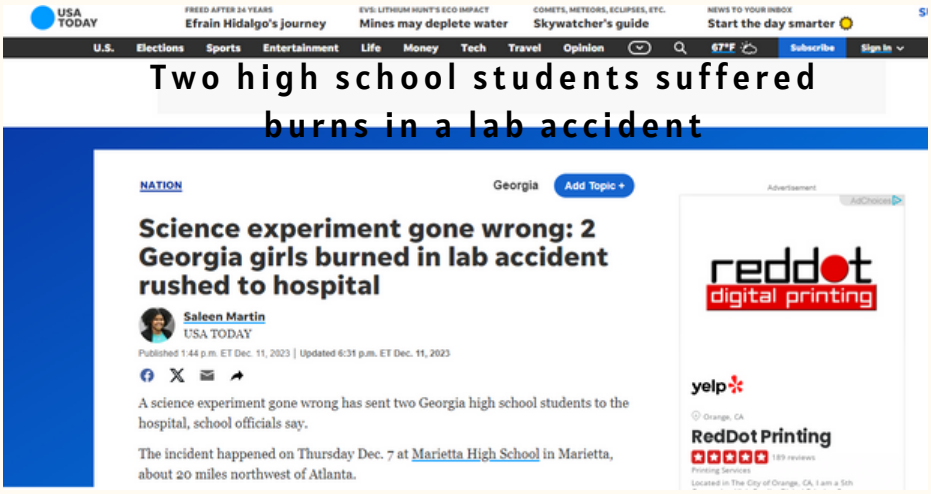
Coming Up

NEW ON-LINE TRAINING
MARCH 2024

Managing your laboratory - designed for Principal investigators and lab managers or group safety officers who have roles in facilitating laboratory operations.

TRAINING REQUIREMENT

Two high school students suffered burns in a lab accident



News and Articles

FLAMMABLE LIQUID ACCIDENTS AND LABORATORY FIRES

Acetone spill
Flash fire from loss of cooling water
Chemistry lab fire
Fume hood fire

Believe It or Don't

"Safety is not expensive, it's priceless."
"Keep your mind sharp and sharps in sharp containers".
"Keep the fire in your hearts, not your lab".

~Unknown

Contact us today

HAVE ANY QUESTIONS ABOUT CHEMICAL AND LAB SAFETY?

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LET'S CHAT!

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