Safety Bulletin

Yale Environmental Health & Safety



Share the Road With Motorcycles



Motorcycles make up three percent of all registered vehicles and less than one percent of all vehicle miles traveled in the United States, but accounted for roughly 13 percent of all traffic fatalities in 2016, according to the National Safety Council.

As the weather turns warmer, more and more motorcycles will be hitting the highway and local roads. May is National Motorcycle Safety Awareness Month and the following are some tips to help both motorcyclists and motorists share the road and stay safe:

Tips for Motorcycle Drivers

- Choose a bike that fits you. Always wear a helmet and have your passengers do the same.
- New riders should take a motorcycle safety course and experienced riders should take refresher courses after being off their bikes for a while.
- Know the rules of the road.
- Never drink and ride.
- Drive defensively, especially at intersections, • where half of all collisions occur.
- Assume you are invisible to other motorists • and position yourself to be seen.
- Be courteous. Don't weave in and out of lanes, ride on the shoulder or between lanes.
- Wear bright and/or reflective clothing that is durable and boots that cover your ankles.
- Wear goggles, glasses or use a face shield • that is ventilated to prevent fogging and make sure it's clear if riding at night.

Tips for Motorists

- Motorcycles are vehicles with the same rights and privileges as any vehicle ٠ on the roadway.
- Allow the motorcyclist a full lane width. Do not share the lane.
- Always signal your intentions before changing lanes or merging with traffic. •
- Remember that motorcyclists are often hidden in a vehicle's blind spot or • missed in a quick look due to their smaller size. Always make a visual check for motorcycles by checking mirrors and blind spots before entering or leaving a lane of traffic and at intersections.
- Allow more following distance, three or four seconds, following a motorcycle so the motorcyclist has enough time to maneuver or stop in an emergency. In dry conditions motorcycles can stop more quickly than cars.

For more information, visit nsc.org.

4,976 Motorcycle riders and passengers died in crashes in 2016, a three percent increase over the last 10 years.

Source: National Safety Council

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May 2018

Guidelines for Chemical Lab Safety

The American Chemical Society has created Guidelines for Chemical Laboratory Safety in Academic Institutions, a tool for developing and strengthening chemical safety awareness and safety culture at an academic institution.

The booklet includes sections on undergraduate laboratory safety learning objectives, graduate student and postgraduate safety education and continuing safety education. The goal of these guidelines is to enable students to develop an understanding of the



principles of chemical safety and to enable them to apply these concepts when working in any laboratory.

EHS Integrator Overview Session



Please join us for an overview session of EHS Integrator hosted by the Yale Office of Environmental Health and Safety.

EHS Integrator is the online system that allows Principal Investigators and their authorized delegates to quickly and easily submit registrations for laboratory research activities, request waste pickups, apply for minor or visiting undergraduates to participate in research or clinical activities and much more.

The next session will be held on **Thursday, May 31st** from 9:30-10:30 am in the West Campus Conference Center Event Room A/B, 800 West Campus Drive. No registration is required and light refreshments will be served.

For questions or more information, contact ehs@yale.edu.

Lessons Learned-Liquid Nitrogen Dewar Valve

Hospitality Fair EHS Raffle Winner



Please report all accidents and near misses. Things happen and it is important to learn from others. Environmental Health and Safety and your colleagues appreciate hearing about incidents, reviewing their causes and learning from them.

Liquid nitrogen is a cryogen that is commonly used in laboratories. Like all cryogenic liquids, it can be extremely hazardous if not handled properly. Cryogens rapidly expand when converted from a liquid to a gas as they warm. Due to this rapid expansion, if an uncontrolled release of liquid nitrogen were to occur, even in a well-

ventilated space, it is possible that enough oxygen would be displaced for asphyxiation to occur. As a note, levels ≤19.5 percent are considered oxygen deficient.

What Happened?

In February 2018, a Yale researcher contacted EHS because they were unable to close the valve on one of the liquid nitrogen dewars in the laboratory. The personal oxygen monitor in the lab indicated that oxygen levels were lower than normal. Upon arrival, EHS found that the researcher was able to shut the valve, however, the oxygen levels at the entryway to the laboratory were 18 percent, indicating an oxygen deficient atmosphere. With the dewar valve closed, the oxygen levels quickly rose back to normal.

What Went Right?

- The dewar was placed next to the fume hood to help quickly exhaust the gas from the laboratory.
- The laboratory had a personal oxygen monitor because of the large amount of cryogen in the room.
- The researcher contacted EHS for assistance when they noticed that the oxygen levels were low.

What Should Have Been Done Differently?

- There was a note in the laboratory indicating that the valve was not working properly. The laboratory should have contacted its supplier for a replacement tank immediately upon noticing a problem.
- Immediate evacuation from the laboratory should have taken place since oxygen levels were below 19.5 percent. Oxygen monitors are set to alarm at this level.

What Corrective Actions Have Been Taken?

- The supplier was contacted. They removed the tank with the faulty valve and replaced it with a new one.
- The research group was reminded of the proper procedures to take if this type of valve failure occurs again, including immediate replacement of the dewar and evacuation of the laboratory when the oxygen monitor alarms.

How Can Incidents Like This Be Prevented?

- Ensure all valves are working properly.
- Report problems immediately to the lab manager or PI.
- Contact the supplier as soon as an issue is noted to prevent catastrophic failures. Do not attempt to repair the tank.
- In laboratories where large amounts of cryogen are used/stored, a personal or fixed oxygen monitor may be necessary. Contact your Safety Advisor for an evaluation.

Office of Environmental Health & Safety 135 College Street, Suite 100, New Haven, CT 06510 Telephone: 203-785-3550/Fax: 203-785-7588 ehs.yale.edu Director: Peter Reinhardt Editor: Dan Champagne "The safety of the people shall be the highest law." - Marcus Tullius Cicero



Miguel Berrios (left), a Safety Advisor with Yale Environmental Health and Safety assigned to Yale Hospitality, presents Kimberly Cummings with a \$50 Amazon gift card she won in a raffle at the 2018 Hospitality Employee Health and Wellness Fair.

Congratulations to Kimberly Cummings, a pantry worker for Yale Hospitality in the Branford/Saybrook Dining Halls, for winning a \$50 Amazon gift card in the Yale Environmental Health and Safety raffle at the 2018 Hospitality Employee Health and Wellness Fair.

The fair, which was held March 22nd at 150 York Street, brought together resources from Yale as well as the Greater New Haven Community and more than 200 Yale Hospitality staff members attended.

"It was good to learn some things we didn't know before like new ways to cook food a little healthier and some ways to work without getting hurt," Cummings said.

Be a Safety Icon



Your eyes, arms, hands, legs and feet will thank you.