

Chemical Safety Information For the TSRI New Hire

The Scripps Research Institute is made up of over 250 laboratories campus-wide. In order to support the high level of research performed here, there are hundreds of chemicals that are safely received, stored, used and disposed every month. This means that you need to be aware of some simple measures to take while working with or around chemicals. Following the guidelines below will help to ensure your chemical safety, that of your co-workers, and our beautiful San Diego environment.

Chemical Inventory: Hazardous materials at TSRI are tracked to ensure good chemical hygiene management and to meet regulatory requirements. You will see a barcode on most hazardous materials here. If you use up the material in the container, please remove the barcode and affix it to the BARCODE COLLECTION SHEET posted in the lab.



Chemical Hazards: Cal/OSHA divides chemical hazards into two major groupings:

1. **Health hazards** – Acute (immediate) or chronic (delayed) health effects may occur in employees exposed to these materials. The term “health hazard” includes substances which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins (liver), nephrotoxins (kidney), neurotoxins (nerves and brain), agents which act on the hematopoietic system (blood forming), and agents which damage the lungs, skin, eyes, or mucous membranes.
2. **Physical hazards** – A substance for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, organic peroxide, oxidizer, pyrophoric, unstable (reactive) or water-reactive.

Look for chemical hazard information on signs, labels and Material Safety Data Sheets, discussed below.



Signage, Labels, and Material Safety Data

Sheets (MSDS): A common sign indicating hazardous material is the National Fire Protection Association (NFPA) diamond. Numbers in the colored diamonds indicate the level of hazard associated with the chemical. The numbers range from 0 (not hazardous) to 4 (lethal, extremely flammable, or highly unstable). Manufacturer *labels* will tell more about the hazards of a chemical. *MSDS* are available in the laboratories, from EH&S, and via the Internet. MSDS contain extensive information about the hazards associated with any chemical. Always read through the MSDS before you use a hazardous chemical.



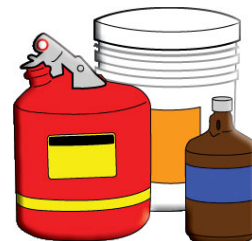
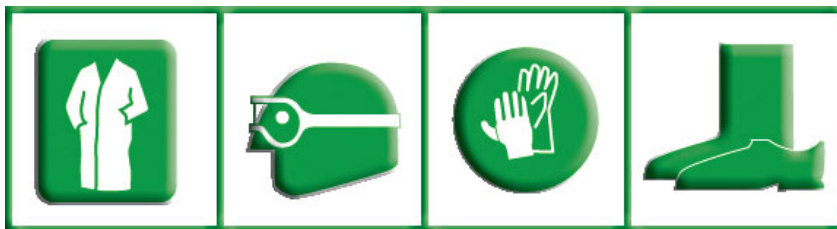
FIRE = Red

REACTIVITY = Yellow

HEALTH = Blue

SPECIAL = White

Protective Equipment: Chemical fume hoods are required when handling malodorous, heat producing, or ignitable/explosive chemicals. With materials that are pressurized or ignitable/explosive, pull the sash down and/or use a blast shield for greater protection. You also need to work in a hood if the materials you work with generate toxic vapors or dusts. TSRI requires all employees to wear personal protective equipment (buttoned lab coat, safety glasses and/or goggles, appropriate gloves, and closed-toe shoes) when working in the lab.



Safe Disposal of Waste: TSRI must manage hazardous wastes very carefully to ensure regulatory compliance and to preserve the environment. DO NOT dispose of any hazardous chemicals down the drain. Chemical wastes must be collected in appropriate containers for pick-up by EH&S. Glassware (broken, used, or disposable) that is free of hazardous chemicals should go in a glass box. Segregation and disposal requirements are very strict so ask your Safety Officer where to properly dispose of any hazardous wastes.

