



Safety Gram

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Eye Protection

Overview

OSHA states, "The employer shall ensure that each affected employee uses appropriated eye or face protection when exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation." In order to comply with appropriate eye protection, the American National Standards Institute (ANSI) approves and issues the testing standards and guidelines to protect consumers and workers from real life hazards. Often on your goggles you will be able to see different labels that indicate the level of protection the goggles provide. Although this may not always be the case, sometimes a little investigation is needed in order to determine the proper applications of the eye protection. Labeling on your eye protection is not limited to but may include:

- Z87 Basic impact
- Z87+ High velocity impact
- D3 Splash and droplet
- D4 Dust
- D5 Fine dust

Below is an example of three different eye protections sold by the chemistry central stockroom and their proper use.

Uvex Futura



Details:

- Offers protection against dust, mist, impact and chemical splash
- Offers protection against welding infrared radiation
- Certified to meet ANSI & tested by Honeywell to meet the requirements of the CSA Z94.3

Laboratory Accident

A student arrived with no lab coat and didn't put on his safety goggles. He took a place at a shared fume hood with two other students, one of whom was in the process of heating solvent in a flask. Suspicious that something wasn't right, the student heating the solvent raised the sash of the fume hood to adjust the setup. At that moment the glass shattered, spraying solvent on all three students. Two of them were wearing eye protection. The new arrival, working next to the student whose flask had shattered, took solvent directly in both eyes. "He was there less than 2 minutes, and he ended up with permanent reduction in his vision," says Denis Sapiro, manager of the Occupational Health and Safety Office at the University of Washington, Seattle, recalling the incident from his undergraduate days. "It was hazy from then on."

<http://www.sciencemag.org/careers/2006/08/wear-your-safety-goggles>

Uvex Flex Seal



Details:

- Uvextreme Anti-fog lens coating
- U6 grade-level lens filtering 99.9% of UVB/UVA protection
- Certified to meet ANSI+ - 2015
- Tested by Honeywell to meet the requirements of the CSA Z94.3 standard
- Certified to meet D3 and D4 standard

Virtua



Details:

- These safety glasses are recommended for the following tasks: chipping, chiseling, drilling, grinding, machining, masonry, pouring/casting, power fastening, riveting, sanding and sawing
- **Not** designed for chemical splashes
- Polycarbonate lenses absorb 99.9% UVA and UVB
- Wraparound design provides extended eye protection and unobstructed viewing

Safety Carriers

When transporting chemicals, that are stored in a glass container, from one laboratory to another or from the stockroom to a laboratory, always use a safety carrier or chemical cardboard box. Examples of safety carriers are shown below. Safety carriers can be bought or checked out from the stockroom. Make sure to return the safety carriers after transporting your chemical so that others can use the safety carriers. Another alternate method of transporting chemicals that are stored in a glass container is to use a cart that has a lip on the edge. This lip allows for chemicals to not accidentally slip off on the edge of the cart. If you need a cart, one can be borrowed from the chemistry central stockroom.

