

Chemical Use Hazards

Activity	Potential Hazards	Recommended PPE
Working with small volumes (<4 liters) of corrosive liquids.	Eye or skin damage.	Safety glasses or goggles Light chemical-resistant gloves Lab coat.
Working with small volumes (<4 liters) of corrosive liquids, small to large volumes of acutely toxic corrosives, or work which creates a splash hazard.	Poisoning, increased potential For eye or skin damage.	Safety goggles Heavy chemical-resistant gloves Lab coat and chemical resistant Apron.
Working with small volumes (<4 liter) of organic solvents or flammable organic compounds.	Skin or eye damage, potential poisoning through skin contact.	Safety glasses or goggles. Light chemical-resistant gloves. Lab coat.
Working with large volumes (>4 liter) of organic solvents, small to large volumes of very dangerous solvents, or work which creates a splash hazard.	Major skin or eye damage, potential poisoning through skin contact. Fire.	Safety goggles. Heavy chemical-resistant gloves. Flame-resistant lab coat (e.g. Nomex).
Working with toxic or hazardous chemicals (solid, liquid, or gas).	Working with toxic or hazardous chemicals (solid, liquid, or gas).	Safety glasses (goggles for large quantities). Light chemical-resistant gloves. Lab coat.
Working with acutely toxic or hazardous chemicals (solid, liquid, or gas).	Increased potential for eye or skin damage, increased potential poisoning through skin contact.	Safety goggles. Heavy chemical-resistant gloves. Lab coat.
Working with an apparatus with contents under pressure or vacuum.	Eye or skin damage.	Safety glasses or goggles, face shield for high risk activities. Chemical-resistant gloves. Lab coat, chemical-resistant apron for high risk activities.
Working with air or water reactive chemicals.	Severe skin and eye damage. Fire.	Work in inert atmosphere, when possible Safety glasses or goggles. Chemical-resistant gloves. Lab coat, flame resistant lab coat for high risk activities (e.g. Nomex). Chemical- resistant apron for high risk activities.
Working with potentially Explosive chemicals.	Splash, detonation, flying debris, skin and eye damage, fire.	Safety glasses, face shield, and blast shield. Heavy gloves. Flame-resistant lab coat (e.g. Nomex).
Working with low and high temperatures.	Burns, splashes, fire.	Safety glasses. Lab coat. Thermally insulated gloves, when needed.
Minor chemical spill cleanup.	Skin or eye damage, respiratory damage.	Safety glasses or goggles. Chemical-resistant gloves. Lab coat. Chemical-resistant apron and boot/shoe covers for high risk activities. Respirator as needed. Consider keeping Silver Shield gloves in the lab spill kit.