Safety Topic – Personal Protective Equipment

• Personal Protective Equipment (PPE) is any piece of equipment that is used to keep an employee safe during work

• Assess hazards in your working environment before deciding the appropriate PPE required

• Be aware of the limitations of the PPE you are utilizing (gloves, eye wear, etc.)
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• Eye and Face Protection
  – Required for anyone who works, studies, or visits a lab
  – Very high percentage of eye injuries occur from the side, i.e. not due to your own activity
  – For our lab, standard safety glasses with eye shields are appropriate, although face shields and goggles could be necessary for situations involving the possibility of splashing chemicals
  – Prescription safety glasses can be obtained through MIT optical
  – Roughly 1000 eye injuries/day in the US, 70% due to small particles

More information at www.mit.edu/ehs
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• Hand protection
  – High potential for hands to be injured at work
  – Many injuries that occur are preventable
  – Key source for spreading of contamination through eating, etc. (Always wash hands before leaving lab)
  – Be careful to choose gloves that are resistant to the materials you plan to work with
    • Nitrile gloves are a good choice, resistant to a broad range of chemicals (do not hold up well against methyl ethyl ketone (MEK), nitrobenzene, benzene, toluene, styrene, or THF)
  – For high levels of contamination and glove resistance charts, visit www.chemrest.com

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• Clothing

  – Pants and close toe shoes should always be worn in the lab in case of chemical spill

  – In case of spill on clothing, immediately remove clothing and use safety shower (located near the doors to 353 and 357)

  – Lab coats are a simple way to prevent laboratory chemicals from leaving the lab

  – Depending on the chemicals you are using, a rubber apron or a chemical resistant suit may be appropriate

  – Be aware of loose clothing which could inadvertently be exposed to chemicals or fire

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• Hearing protection
  – People exposed to time weighted average of 85 dbA threshold for an 8 hour day are required to wear hearing protection
  – Contact EHS for noise exposure measurements or engineering controls to limit noise exposures

• Respiratory protection
  – Determine need for this equipment in conjunction with the Industrial Hygiene Program
  – Yearly training required

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