

DUST AND FUMES

STUDENT'S GUIDE

MODULE OVERVIEW

This module provides information on composition and health effects of dust and fumes. You will identify the tasks that generate dusts and fumes in collision shops. Available engineering controls and work practices that assist with dust and fumes elimination and reduction are discussed and demonstrated. Personal protective equipment suitable for protection against dust and fumes is discussed. Emphasis is placed on selection and use of respirators. Respirator characteristics are discussed, along with proper selection, use and maintenance.

OBJECTIVES

After completing this module, you will be able to:

- Identify tasks that generate exposure to dust and fumes.
- List the health effects associated with different types of dust and fumes.
- Explain the role of particle size in potential adverse health effects.
- Demonstrate use of equipment and work practices that eliminate or reduce exposure to dust and fumes.
- Explain how respirators work and perform user seal checks.
- Identify the information that indicates the dust mask or respirator is NIOSH-certified.

CLASSROOM

PowerPoint presentations:

- **Dust and Fumes – Part 1 – Identification and Health Effects**
- **Dust and Fumes – Part 2 – Control and Protection**

LAB

Demonstration of the equipment and work practices used to eliminate or reduce generation of dust and fumes. Learn what PPE is required when working in the shop and where to find it. Learn about what makes an air gun OSHA – compliant. Learn how to regulate air pressure when compressed air is permitted for use in cleaning surfaces.

HOMEWORK

- **Dust and Fumes – Homework.pdf** – Learn about the specific requirements for aluminum dust extractors. Learn about the importance of NIOSH certification and watch a video about respirator fit testing methods. Practice putting on and taking off your dust mask following manufacturer procedures.
- **Quiz**

ADDITIONAL RESOURCES

“I want to know more” folder – information about dust and fume control options, respirators and dust masks, and welding hazards.

