



15 Minute Safety Presentation

Respirators

15 MINUTE SAFETY PRESENTATION – RESPIRATORS

PREPARATION

Have on hand a selection of different respirators and masks that are commonly used in your workplace.

INTRODUCTION

Unlike other types of hazards, airborne contaminants are often invisible because of their size or nature. You may not be able to see, feel or even smell them. An airborne contaminant is any type of material or gas that does not normally occur in the atmosphere.

Preventing airborne contaminants from entering the workplace and providing adequate ventilation are the first steps that should be taken. Sometimes this is not possible and respiratory protective equipment must be worn.

An important part of respiratory protection is selecting the correct type of respirator for the type of contaminant. Certain types of respiratory protective equipment are designed to protect you against some airborne contaminants but not others.

LEARNING OUTCOMES

By the end of this presentation you will understand:

- the types of airborne contaminants;
- the types of respiratory protective equipment;
- how to correctly fit and use air purifying respirator masks; and
- how to select the correct type of respirator mask.

AIRBORNE CONTAMINANTS

The kinds of respiratory hazards which may require the use of respiratory protection includes:

- particulate contaminants;
- gas contaminants; and
- oxygen deficient atmospheres.

Particulate contaminants are tiny solid or liquid particles suspended in the air.

Fumes are solid condensation particles of extremely small size. Fumes are found in the air where soldering, welding and brazing work is carried out.

Mist is tiny liquid droplets given off whenever a liquid is sprayed, mixed or agitated. Spray painting is an example of where mists are formed.

Vapours are formed by the evaporation of liquids. Solvents that are used in spray painting, such as acetone, generate vapours.

Toxic gases are any gases that are capable of producing injury when entering the body in sufficient concentration. Examples include chlorine, ammonia, sulphur-dioxide and hydrogen-cyanide.

Dust is solid particles suspended in the air which are created by cutting, grinding, crushing and handling of solid materials. Silica dust generated by the cutting of bricks is an example of dust that is particularly harmful to the lungs.