

Orlando Plant Vision:  
A Great Place to Work



# Hazard Communication Safety Training

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# In this training we will cover....



- Summary of the Hazard Communication Standard
- Chemical and physical properties of hazardous materials
- Methods use to detect the presence of release of chemicals
- Physical/health hazards of chemicals
- Where MSDS's are located, how to read and interpret the information, and how employees may obtain additional hazard information

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# Summary of the standard...



- OSHA's Hazard Communication (HazComm) standard has three basic goals:
  - ID physical and health hazards in chemical products to which employees may be exposed
  - Communicate the presence and nature of the hazards to employers and employees
  - Inform and train all employees exposed to these hazards on how to identify and handle hazardous chemicals

The HazComm standard is also known as the "Right to Know" Law

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# Chemical and Physical properties of hazardous materials...



A chemical is considered hazardous if it has one or more of the following properties:

- **Flammable:** potential to burn when ignited.
- **Corrosive:** acids and caustics which corrode on contact with the body
- **Toxic:** poisonous to the body; the degree of hazard depends partly upon how toxic a substance is; can enter body through nose, mouth, or skin and come in solid, liquid, or gas form
- **Reactive:** undergoes undesirable changes or reactions when heated, shocked, exposed to air, or mixed with other substances

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## Chemical and physical properties of hazardous chemicals (cont.)...



- **Explosive:** vapors of a substance which can ignite and explode.
- **Anesthetic:** causes unconsciousness after excessive exposure (the same effect as that of drugs used in surgery)
- **Asphyxiating:** smothering

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## Methods used to detect the presence of release of chemicals...



You may detect a hazardous chemical by:

- Smelling a odor
- Seeing dust, mist, fumes, or vapors
- Tasting airborne particles
- Feeling a burning sensation in eyes, nose, throat, or on skin
- Taking an air sample
- *Touching should be the last option*

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# Physical/Health hazards of chemicals...



Health hazards associated with chemicals are those that have acute or chronic effects on an employee's health in one or more of the following ways:

- Carcinogens
- Toxic agents or ingredients (i.e. neurotoxins, hepatotoxins, ect..)
- Reproductive toxins
- Irritants
- Sensitizers

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# Physical/Health hazards of chemicals...



Values of the concentration of a chemical in the air that a worker may be exposed to for a given period of time without experiencing adverse effects:

- T.L.V. – Threshold Limit Value
- P.E.L. – Permissible Exposure Limit

Individuals susceptibility is defined as the difference in reaction to a given dose.

Some individuals may react differently to the same dose, such individuals may be allergic or hypersensitive to chemical (s)

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# Physical/Health hazards of chemicals...



## Acute effect include:

- Employee in exposed to a relatively large dose of a chemical or chemicals
- Exposure occurs over short periods of time
- Some type of immediate effect occurs
- Effect is often reversible when exposure stops

## Chronic effects include:

- Employee exposed to relatively small dose of chemical
- Exposure occurs over a long period of time
- Health effects occur some time after the first exposure
- Effects of occupational disease may or may not be reversible

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# Procedures to protect against hazards...



- Always read labels & MSDS's to see what protective equipment needs to be worn
- Never risk exposure to a chemical that is unlabeled or unknown
- Store all corrosives away from flammable
- Store chemicals away from heat or flame
- Always keep acids and bases away from each other
- Always store in appropriate containers with appropriate labeling – keep lids on containers of liquids
- Maintain appropriate ventilation when exposed to chemicals
- Alert appropriate members of the Green Team if a hazardous spill or leak has occurred to ensure appropriate clean-up

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# Standard Labeling Systems



- NFPA:  
Information and Code System provided by the National Fire Protection Association
- Color Code, Numbered Rating, and specific information



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# MSDS'S...

The purpose of Material Safety Data Sheets is to communicate...

- The chemical's physical properties and/or fast-acting health effects that make it hazardous to handle
- The level of PPE that is needed(i.e. safety goggles,gloves, etc...)
- The appropriate first aid treatment to be administered when exposure occurs
- How to respond to accidents

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# MSDS'S...



Master sets of the MSDS's are kept in the Break room and in the Environmental Coordinator's desk

Partial sets are located in the following areas:

- Maintenance Shop
- Seasoning Room
- Waste Water Treatment
- Boiler Room
- Forklift Maintenance Shop
- Logistics (truck shop)
- QA lab
- Sanitation's Desk

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# How to read and interpret the MSDS information..



MSDS's from various suppliers may look different, but all complete MSDS's will include:

- Section I: Manufacturer Information
- Section II: Hazardous Ingredients identity information
- Section III: Physical/Chemical Characteristics
- Section IV: Fire and Explosion data
- Section V: Reactivity Data
- Section VI: Health Hazard Data
- Section VII: safety Handling and Usage Precautions
- Section VIII: Control Measures

Let's review how to use the MSDS books and also look at an MSDS for a chemical in our work area

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# How to obtain additional hazard information....



- The name and address of the chemical's manufacturer and/or supplier will be on every MSDS
- If additional information is needed, it can be obtained from the manufacturer directly or through the site safety resource

Are there any questions?

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