

# CERTIFICATION STATEMENT

## HAZARD COMMUNICATION STANDARD TRAINING

The Ohio State University is required by law to provide training on the OSHA Standards to all employees. Documentation of the training must be maintained by University Development for five years. Your signature below acknowledges that you:

1. Have received a copy of Plain Talk About OSHA's "Hazard Communication Standard" for the Office Environment
2. Have read the document and received answers to any questions you may have had.
3. Understand that additional information may be obtained from any "Right to Know" Center.

Name (please print): \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

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### FOR OFFICE USE ONLY

Date Received: \_\_\_\_\_ By: \_\_\_\_\_

Retain Document Until: \_\_\_\_\_

**PLAIN TALK ABOUT OSHA’S**  
**“HAZARD COMMUNICATION STANDARD”**  
**FOR THE OFFICE ENVIRONMENT**

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Phone: 614-292-3060

“Right to Know” Center: Room 303 Fawcett Center

**WHAT’S THIS ALL ABOUT ANYWAY?**

In 1992, the Ohio State Legislature passed House Bill-308 mandating that all public institutions adopt and comply with safety regulations at least as stringent as federal Occupational Safety and Health Administration (OSHA) standards. One of these standards, the Hazard Communication Standard (HCS), requires that information be supplied to you, the employee, about potential chemical hazards in your workplace. This standard is also known as the “Right To Know” standard. That is what this training packet is all about. By becoming familiar with the information presented here and following manufacturer’s recommendations found on product labels, you should have the information necessary to be able to work safely with the chemical hazards in your work environment. Although abbreviated in length, we feel this training packet will provide the necessary information to comply with the HCS appropriate to the level of risk you will experience as an office worker. However, if you would like additional information or want to take the expanded training class, please contact your OSHA coordinator listed above for further details.

## HOW DO I KNOW WHAT CHEMICALS ARE HAZARDOUS?

Chemical manufacturers place certain information on all their products. This information must include the product name and the manufacturer's name and address. In addition, the manufacturer, distributor, or importer must search the published literature or perform tests to determine if the product is potentially hazardous. Hazard information must also be included on the product label. The HCS defines two hazard categories:

- Physical hazards (e.g., explosive, flammable, etc.), and
- Health hazards (e.g., irritant, corrosive, carcinogen, etc.).

If a product is classified as both flammable and an irritant, the manufacturer must label it accordingly. They must also provide detailed safety information about the product on Material Safety Data Sheet (MSDS). This MSDS must be distributed and/or made available to anyone who uses the product. The simplest way to determine if a product is hazardous is to look for key words, such as "warning", "irritant", "caution", or "flammable" on the label. Additional information can be found on the MSDS. (A sample MSDS is attached after the glossary.)

As part of the HCS, your administrative unit must inventory the products used in your area and prepare a list of all hazardous materials. If a material has any specific hazard warning then it must be included on the inventory list. Your OSHA Coordinator is responsible for seeing that this inventory is created and maintained. Most offices would have just a few products that are considered hazardous.

When the inventory is complete, an MSDS must be obtained for each product on the list and made available to you. The MSDS has about 10 sections, each describing specific information about the product. The sections most important to the user from a hazard point of view are:

- Chemical Product and Company Identification,
- Hazard Identification, including Emergency Response Overview,
- First Aid Measures,
- Accidental Release Measures, and
- Exposure Control.

*If you have any questions or concerns after reviewing the information contained within a Material Safety Data Sheet, please feel free to contact your OSHA Coordinator or OEHS at 2-1284.*

The inventory, the MSDS's, and other documents for the HCS are located in a place commonly called the "Right to Know" Center. This center and the information it

contains must be available to you at all times. If an emergency or crisis occurs, or if you need more information, you must be able to access the information quickly.

## **HOW DO I KNOW HOW TO USE THESE CHEMICALS SAFELY?**

Your OSHA Coordinator is responsible for seeing that a written plan called the “Hazard Communication Program” is written for your administrative unit. This details the policies for dealing with hazardous chemicals or products specific to the administrative unit, for example:

- The hazardous chemical inventory,
- How each element of the HCS will be met,
- The location of your Hazard Communication Program and MSDS’s,
- A copy of the HCS (the law) so that you can read more about it, and
- Other related information.

## **WORKING WITH HEALTH HAZARDS**

Chemicals that are health hazards must be absorbed in sufficient quantities to cause harm. Most of us would consider salt as a safe material necessary for our body’s chemical balance. High concentrations of salt can cause high blood pressure and/or lead to heart problems. So salt is safe at low levels, but at consistently high levels it can be dangerous and/or harmful. This is true with most materials. The trick is to avoid harmful exposure levels. Toxicologists test materials and report the quantity of the material we can work with without adverse effects. This amount is called an “exposure limit”. Although we can work safely with hazardous materials below this limit, the best approach is to keep our exposure as low as possible. To do this, use the minimum amount needed for a particular task, use good ventilation, and avoid contact with skin or eyes.

Chemicals can enter the body through four common ways.

- Ingestion, (eating the material),
- Absorption (through the skin),
- Inhalation (breathing), or
- Injection (punctures, cuts, open wounds)

Eating or ingesting chemicals usually occurs when food and hazardous chemicals are used in the same vicinity. The food may become contaminated with chemicals and be eaten without realizing it is contaminated. Absorption usually requires significant contact time, and one can be protected by preventing contact with our skin, using protective clothing (e.g., eye protection, gloves), and/or using good hygiene practices (e.g., washing). However, inhaling chemicals is usually the most significant route of entry. This can be minimized by using only the amount of a chemical or product

necessary for the job, keeping containers closed except when transferring or using materials, and employing good ventilation.

## **WORKING WITH PHYSICAL HAZARDS**

The most common physical hazard encountered is flammability. Flammable materials, such as alcohol, will produce enough vapors to ignite in the presence of a flame or spark. Vapors can also travel some distance from an open container, become ignited and flash back to the area of the container. Making certain that there is good ventilation and that no ignition sources are in the immediate area will minimize the likelihood of a fire when using flammable products. Remember to keep containers of flammable materials tightly closed when not in use. The spray from aerosol cans with combustible contents may also ignite in the presence of an open flame or spark. Pressurized containers which contain compressed gasses may also explode or rupture if overexposed to heat or are punctured. They must be stored away from heat, direct sunlight and ignition sources.

## **RECOGNIZING A SPILL OR LEAK**

It is also important to know how to recognize a spill or leak of a hazardous chemical. When you first come into contact with the product, check the container for signs of wetness, discoloration, or package leakage. Sometimes unexpected or unusual odors can indicate a spill or leak. If you detect a spill, remember that as an office worker you typically handle materials in quantities similar to those found at home. Gather as much information as possible to help you determine the contents of the container and any possible hazards associated with it. Check the MSDS for clean up instructions. For most spills, absorb the material with a paper towel or tissue and dispose of it appropriately. If the material has come in contact with your skin or clothing, wash the affected area using plenty of soap and water. Remove and launder soiled clothing. The label or MSDS will supply you with more detailed information, contact Employee Health Services for advice or call OEHS (292-1284) for spill advice or disposal information.

## **IN GENERAL, WHAT ARE THE HAZARDS OF COMMON PRODUCTS USED IN THE OFFICE?**

Please note: Always consult the MSDS and label for hazard information for a specific product.

### Adhesives - Flammable, Irritant

Certain products like glues and rubber cements contain chemicals that could present a hazard under certain conditions. Some adhesives may be flammable, irritating to the eyes on direct contact, cause drying, and/or irritation with repeated and prolonged skin

contact. Exposure to vapors in high concentration even for a short time may cause respiratory irritation. Safe guidelines for using adhesives include: keeping them away from heat, sparks, and open flame; preventing skin and eye contact; and using them only in adequately ventilated areas. In case of skin contact, wash the affected area with soap and water. If eye contact should occur wash the eyes under running water for at least 15 minutes and see a physician immediately.

#### Carbonless Copy Paper - Irritant

Some research indicates that small quantities of formaldehyde may be released from carbonless copy paper. Although well below the established legal exposure limits, formaldehyde in high concentration may produce symptoms including skin, eye or respiratory irritation, and/or headaches. One could experience any or all of these symptoms at exposures involving lower concentrations. Again, good air circulation (ventilation) is the key and should eliminate any potential respiratory hazard. Also, avoid touching the face or eyes while working with carbonless copy paper. Wash hands with a mild soap and apply hand lotion to moisturize the skin and prevent it from drying.

#### Correction Fluid (i.e., White Out™) - Irritant

Correction fluids may contain small quantities of organic solvents, (e.g., volatile materials) that should not be hazardous due to the quantity of material normally used. Adverse health effects are unlikely when correction fluid is used as directed in a room with normal ventilation. However, if high exposure to these chemicals does occur, respiratory irritation and central nervous system impairment may result.

#### Cleaners - Irritant, Combustible

Cleaning products such as glass cleaner for copy machine glass, desktop cleaners and white board cleaner, may contain small amounts of ammonia or isopropyl alcohol (rubbing alcohol). Exposure to the mists or vapors of these products in high concentrations could be irritating to the lungs and/or eyes and should be avoided. Again, use ventilation as your primary protection.

#### Photocopier/Laser Printer Toners - Irritant, Flammable

Although dry and liquid toners for photocopy machines and laser printers contain chemicals such as carbon black and resins that have the potential to harm at high concentration, they are normally contained and do not represent a significant hazard. Prolonged exposure to toner powder or vapors may cause eye and/or respiratory irritation and should be avoided. Having disposable gloves available may be a good precaution when handling the toner cartridges. Also, it is important to remember to turn off the power supply or unplug the machine when anyone is servicing the equipment.

Many photocopy machines and laser printers produce small quantities of ozone as a by-product of the copying process. This toxic gas, which has a pungent sweet odor, can

irritate the eyes, nose and/or throat. Check with the manufacturer to see if your photocopier or laser printer is equipped with an ozone filter.

The best protection when using copy machine or laser printer products involves good ventilation, avoiding skin and eye contact, and using the products according to the manufacturer's recommendations as written on the label or in the MSDS.

Inks and Inking Materials - Irritants

Some inks and ink products may produce eye irritation on contact. Check your label or MSDS for specific products. The chemical in broad tip marker pens may produce flammable vapors and/or prolonged breathing of the vapors could cause irritation to mucous membranes, nausea, dizziness, and headache. If skin and/or eye contact should occur, wash the affected areas with running water as soon as possible.

The above list is not complete or all encompassing. The hazardous properties and emergency procedures of other office products can be found on their labels and/or MSDS. These can be found in your "Right to Know" Center. If you have additional questions or concerns, please feel free to contact your OSHA Coordinator or OEHS (292-1284).

Please don't forget...

Offices can also present other hazards that can cause injuries. The following is a list of office hazards and their common prevention practices. Most of this is common sense, but sometimes we just forget. Don't set yourself up for becoming a victim.

HAZARD	REMEDY
Slip, Trip and Fall	Keep electrical, telephone or computer cords out of walkways. Close file cabinet drawers when not us use. Keep objects, such as incoming shipments, out of walkways. Clean up beverage spills immediately.
Pinch Points (caught in or between objects)	Use drawer and file cabinet handles. Watch for and keep fingers out of tight spaces when carrying objects through doorways or placing objects in storage.
Electrical	Use UL® Listed electrical equipment. Maintain the grounding pin (third prong) on plugs. Avoid "octopus" outlets. Install power strips or request additional electrical outlets if needed.

HAZARD REMEDY (Continued)

Sharps                      Use utility knives provided with blade guards.  
                                  Store paper cutter blades in the down position.  
                                  Use staple removers to remove staples.  
                                  Use finger cots when filing or sorting quantities of paperwork.

## **What if an employee is injured on the job or becomes ill on the job?**

The Occupational Safety and Health Administration requires that The Ohio State University report work-related injuries and illnesses. An occupational injury is any injury such as a cut, fracture, sprain, etc., which results from a work accident. An occupational illness is any abnormal condition or disorder, other than one resulting from an occupational injury, caused by an exposure to environmental factors associated with employment.

The University has prepared a form on which an employee can report work-related disorders. A sample of the form is at the end of this package. If you suffer a work-related disorder, complete the form and, if necessary, take it with you to University Employee Health Service (UEHS) or a physician of your choosing. Have the form completed by the doctor. If you do not go to UEHS, send the physician-completed form to UEHS, 2-A Clinics Building, 456 West 10<sup>th</sup> Avenue, by campus mail.

The reporting of work-related injuries and illnesses can allow the University to spot injury-prone practices and help in altering those practices to reduce the number of accident and illnesses at the University. Your help in this matter is appreciated.

## **SO WHAT WAS THIS ALL ABOUT ANYWAY? LET'S REVIEW...**

The purpose of the Hazard Communication Standard is to ensure that the potential hazards of chemicals or products that employees work with are properly communicated to them. To this end, the University has established an OSHA Compliance program, and your administrative unit designated your OSHA Coordinator to act as a safety contact. The OSHA Coordinator is responsible for establishing a hazardous materials inventory and making the Material Safety Data Sheets for the items on this list available to you. In addition, the administrative unit has a written Hazard Communication Program. These three items are located at the "Right to Know" Center, as listed at the front of this packet. Finally, this information has been provided to you, the office employee, as a minimum training required by OSHA's Hazard Communication Standard. It is the responsibility of the employee to become familiar with the information necessary to protect themselves from the hazards inherent in the workplace. Although a person can work safely with hazardous materials, the best approach is to reduce overall exposure when at all possible. Exposure can be easily minimized by using only the amount of product needed for a particular task, closing containers when not in use, using good ventilation, and avoiding

contact with skin and eyes. If you have other questions or concerns, please contact your OSHA Coordinator or the Office of Environmental Health and Safety at 292-1284.

Please complete the quiz at the end of this packet and return it to your OSHA Coordinator. Thank you.

## **A Glossary of Some Common Terms Used in the Hazard Communication Standard:**

**Exposure or Exposed:** That an employee is subjected in the course of employment to a chemical that is a physical or health hazard, and includes potential (e.g., accidental or possible) exposure. “Subjected” in terms of health hazards includes any routes of entry (e.g., inhalation, ingestion, skin contact or absorption.)

**Exposure Limit:** The time-weighted average concentration for a normal 8-hour workday and a 40-hour workweek, to which nearly all workers may be repeatedly exposed, day after day, without adverse effect.

**Hazardous Chemical:** Any chemical whose presence or use is a health hazard or a physical hazard. See below.

**Hazard Warning:** Any words, pictures, symbols, or combination thereof appearing on a label or other appropriate form of warning which convey the specific physical or health hazard(s), including target organ effects, of the chemical(s) in the container(s). (See definitions for “physical hazard” and “health hazard” to determine the hazard which must be covered.)

**Health Hazard:** A chemical for which there is significant evidence, based on at least one study conducted in accordance with established scientific principles, that acute or chronic health effects may occur in exposed employees. The term “health hazard” includes chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, or produce targeted organ effects e.g., kidneys, liver, nervous system, blood, and agents that damage the lungs, skin, eyes, or mucous membranes.

**Acute Effect:** Adverse effect that has severe symptoms developing rapidly and coming quickly to a crisis, usually within minutes but up to twenty-four hours.

**Chronic Effect:** An adverse effect with symptoms that develop slowly over a long period of time or that occur frequently.

**Carcinogen:** A substance or agent capable of causing or producing cancer in mammals, including humans.

**Corrosive:** A chemical that causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the site of contact, e.g., battery acid.

**Irritant:** Chemical, which is not corrosive, that causes a reversible inflammatory effect on living tissue, e.g., skin, eyes, respiratory system, by chemical action at the site of contact, e.g., onion odor, skunk spray, acetic acid.

**Material Safety Data Sheet (MSDS):** Written or printed material concerning a hazardous chemical which is prepared in accordance with 29 CFR 1910.1200(g)

**Physical Hazard:** A chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive.

**Flammable Liquid:** Any liquid that ignites at room temperature, e.g., gasoline, alcohol.

**Combustible Liquid:** Any liquid that must be heated, sprayed or requires a wick to ignite, e.g., kerosene, oil.

HEWLETT-PACKARD -- 92298A EP-E CARTRIDGE (TONER CARTRIDGE) -  
ELECTROSTATIC TONER MATERIAL SAFETY DATA SHEET

FSC: 6850

NIIN: 013761766

Manufacturer's CAGE: 28480

Part No. Indicator: A

Part Number/Trade Name: 92298A EP-E CARTRIDGE (TONER CARTRIDGE)

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General Information  
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Item Name: ELECTROSTATIC TONER  
Company's Name: HEWLETT-PACKARD CO  
Company's Street: 3000 HANOVER ST  
Company's City: PALO ALTO  
Company's State: CA  
Company's Country: US  
Company's Zip Code: 94304-1112  
Company's Emerg Ph #: 415-857-1501  
Company's Info Ph #: 415-857-1501  
Distributor/Vendor # 1: CANON USA INC  
Distributor/Vendor # 1 Cage: 1BA63  
Record No. For Safety Entry: 008  
Tot Safety Entries This Stk#: 009  
Status: SE  
Date MSDS Prepared: 07SEP92  
Safety Data Review Date: 29DEC93  
Preparer's Company: HEWLETT-PACKARD CO  
Preparer's St Or P. O. Box: 3000 HANOVER ST  
Preparer's City: PALO ALTO  
Preparer's State: CA  
Preparer's Zip Code: 94304-1112  
MSDS Serial Number: BSQHR

=====  
Ingredients/Identity Information  
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Proprietary: NO  
Ingredient: STYRENE-ACRYLATE COPOLYMER  
Ingredient Sequence Number: 01  
Percent: 45-55  
NIOSH (RTECS) Number: 1003102SA  
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Proprietary: NO  
Ingredient: IRON OXIDE, MAGNETITE \*93-4\*  
Ingredient Sequence Number: 02  
Percent: 45-55  
NIOSH (RTECS) Number: 1004053IO

CAS Number: 1317-61-9

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Physical/Chemical Characteristics  
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Appearance And Odor: TONER IS FINE POWDER W/SLIGHT PLASTIC ODOR.  
Melting Point: 212-302F  
Vapor Pressure (MM Hg/70 F): NEGLIGIBLE  
Specific Gravity: 1.4-1.6  
Evaporation Rate And Ref: (BU AC =1): NEGLIGIBLE  
Solubility In Water: NEGLIGIBLE  
Percent Volatiles By Volume: NEGLI

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Fire and Explosion Hazard Data  
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Extinguishing Media: CO2, WATER, DRY CHEMICAL,  
Unusual Fire And Explosive Hazards: THIS MATERIAL, LIKE MOST ORGANIC  
MATERIAL IN POWDER FORM, IS CAPABLE OF CREATING A DUST  
EXPLOSION.

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Reactivity Data  
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Stability: YES  
Materials To Avoid: STRONG OXIDIZERS  
Hazardous Decomp Products: CO2, CO  
Hazardous Poly Occur: NO

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Health Hazard Data  
=====

Route Of Entry - Inhalation: NO  
Route Of Entry - Skin: NO  
Route Of Entry - Ingestion: NO  
Health Hazard Acute And Chronic: TONER ISN'T ACCESSIBLE UNTIL CARTRIDGE  
IS FORCED TO BE BROKEN. EYES: IRRITATION.  
Carcinogenicity - NTP: NO  
Carcinogenicity - IARC: NO  
Carcinogenicity - OSHA: NO  
Explanation Carcinogenicity: NONE  
Emergency/First Aid Procedures: EYES: FLUSH W/PLENTY OF WATER. SKIN:  
WASH W/SOAP & WATER. OBTAIN MEDICAL ATTENTION IN ALL CASES.

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Precautions for Safe Handling and Use  
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Steps If Material Released/Spill: AVOID INHALATION OF THE DUST, SWEEP  
MATERIAL ONTO PAPER/COLLECT IT.  
Waste Disposal Method: DISPOSAL SHOULD BE SUBJECT TO FEDERAL,  
STATE/LOCAL LAWS.

Precautions-Handling/Storing: KEEP OUT OF REACH OF CHILDREN. KEEP AWAY FROM CONTACT W/ OXIDIZING MATERIALS. DON'T BREATH DUST.

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Control Measures  
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Ventilation: GOOD GENERAL SHOULD BE SUFFICIENT  
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Transportation Data  
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Disposal Data  
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Label Data  
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Label Required: YES  
Technical Review Date: 29DEC93  
Label Date: 29DEC93  
Label Status: F  
Common Name: EP-E CARTRIDGE  
Chronic Hazard: NO  
Signal Word: DANGER!  
Acute Health Hazard-Slight: X  
Contact Hazard-Slight: X  
Fire Hazard-Severe: X  
Reactivity Hazard-None: X  
CORROSIVE, SEVERE IRRITATION. MAY CAUSE CHEMICAL BURNS W/  
PERMANENT CORNEAL INJURY & SENSITIZATION.SKIN: SEVERE  
IRRITATION, CORROSIVE, CHEMICAL B  
Label Name: HEWLETT-PACKARD CO  
Label Street: 3000 HANOVER ST  
Label City: PALO ALTO  
Label State: CA  
Label Zip Code: 94304-1112  
Label Country: US  
Label Emergency Number: 415-857-1501  
Year Procured: UNK  
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