



SMO 02-0903

THE HAZARDS OF CADMIUM

By SeaBright Insurance Loss Control

The Hazard Communication Standard requires that users of hazardous materials understand the properties and hazards of those materials. Users must know how to protect themselves from the dangers the materials present. Safety regulations have made Material Safety Data Sheets (MSDS) the primary source of information. However, many people acknowledge that Material Safety Data Sheets are not easily understood by the average worker. With this in mind, this Safety Meeting Outline attempts to *supplement* the MSDS by providing key information about the primary hazards of cadmium in a form that can be more easily understood.

The Dangers of Cadmium: Cadmium is commonly encountered as a plating material. It can also be found in solders or can be given off as a by-product when zinc, lead, or copper-containing materials are melted.

- **Short-term exposure to cadmium** dust or fumes can cause irritation to the nose and throat. If enough has been inhaled, you may also develop a cough, chest pains, sweating, chills, shortness of breath and weakness. Ingestion may cause nausea, vomiting, diarrhea, and abdominal cramping. Unfortunately, cadmium has poor warning properties. You may not experience ill effects until 4 to 10 hours after exposure. By then, it may be too late if concentrations are high.
- **Long-term exposure to cadmium** has been known to cause a loss of sense of smell, ulceration of the nose, shortness of breath (emphysema) and anemia. Cadmium has also been identified as a material that can cause lung cancer and/or kidney problems if you are over-exposed. *How can you avoid over-exposure?*

Protection Against Cadmium: First, know if you are working with a material that contains cadmium. Check with your supervisor or the Material Safety Data Sheet (MSDS). If cadmium is listed as an ingredient, you must take precautions.

- **Protect your lungs.** If the fumes or dust cannot be picked up by an engineered collection system, then use of a respirator is a must. The best protection will be obtained from a supplied air respirator. However a half mask respirator equipped with a HEPA filter is acceptable, for exposures up to 10 times the Permissible Exposure Level (PEL). Remember to do a positive and negative pressure fit test *each time* you put the respirator on.
- **Do not grind or cut cadmium** bearing materials with a high speed disk saw or abrasive wheel. This will generate dangerous cadmium dust.
- **Always wash** before eating, drinking, or smoking. Never eat, drink or smoke in an area where cadmium is being worked. This simple process of good hygiene will help guard against swallowing or inhaling the material.
- **Protect others from dust.** If your clothes become contaminated with cadmium, do not wear them home or even into a break area. Doing so, is an easy way of transferring this material to friends and family.

Know the hazards of the materials you work with—and take care!



SAFETY MEETING AGENDA

DEPARTMENT/JOB SITE: _____ MEETING DATE: _____

1. **Open Meeting & Present safety topic:** _____
2. Read minutes from previous meeting.
3. **Persons present:**

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

4. **Old Business** – Status of previous recommendations. Discuss pending old business if any.
5. **Accidents** – Discuss accidents and near misses that have occurred since the last meeting. Brief summary of accidents to date by number and type. Note any trends. Discuss corrective action taken, or needed. Concentrate on accident causes to make everyone more aware.
6. **Inspection Reports** – Report on findings and recommendations of any inspection reports made since last meeting.
7. **New Business** – Solicit employee suggestions. Discuss new procedures, changes to company safety policy, etc.

TIME MEETING STARTED: _____ TIME FINISHED: _____

MEETING CHAIRED BY: _____ TITLE: _____