



While the law demands that you comply with regulations such as OSHA's Hazard Communication Standard and SARA Title III, the real benefits come from providing a safe workplace and being a responsible citizen.

CHEMICAL SAFETY: IT'S IN YOUR HANDS

Any company that handles pesticides must comply with the appropriate safety regulations. But many don't know exactly what is required by law.

by Julie M. Baranyai, Ph.D.

Handling chemicals safely means being informed about the products you're handling, being aware of their hazards and being prepared to control, contain, and clean up a spill.

Golf course superintendents, landscape contractors and others who use pesticides and fertilizers must plan ahead and think about the "what-ifs":

"What if application equipment leaks?"

"What if there is a fire in a chemical storage building?"

If you are to handle chemicals safely, you must inform your employees by complying with the Occupa-

tional Safety and Health Administration (OSHA) Standard or Worker Right-to-Know Law. You also need to be aware of your responsibility to inform the community at large about chemicals used at your facility as required by SARA Title III or the Community Right-to-Know Law. Understanding and using Material Safety Data Sheets (MSDSs) is part of both of these laws.

Worker right-to-know

The worker right-to-know law was issued by OSHA on November 24, 1983 as the Hazard Communication Standard (HazCom). Initially, the legisla-

tion was limited to chemical manufacturers, imports, and distributors. It was expanded to include other users of hazardous chemicals, such as golf course superintendents and landscape contractors, on June 24, 1988.

The federal OSHA standard preempts any state or local worker right-to-know law unless it is an OSHA-approved state plan. HazCom protects the worker in the work place; it does not extend outside the work place. Employees of all businesses that handle hazardous chemicals, including contractors and subcontractors, are protected under the law.

Businesses are not responsible for a

worker who is self-employed; however any employees of a self-employed business owner are covered by the law.

Legal requirements

The law requires that hazards of all chemicals used in a work place be evaluated and that information and training for safe use be provided to employees. Under HazCom, "hazardous chemical" is defined as any chemical that presents a physical (fire, explosion, etc.) or health hazard in the workplace, according to criteria set by OSHA.

Many pesticides not considered hazardous by the Environmental Protection Agency (EPA) or Department of Transportation (DOT) are considered

hazardous by OSHA, including most fertilizers and all pesticides. The MSDS received from your supplier should be consulted to determine if a product meets the OSHA definition of "hazardous chemical."

HazCom requires employers to:

- 1) Evaluate hazards of all chemicals handled in the workplace.
- 2) Develop and maintain (keep cur-

rent) a list of all hazardous chemicals to which employees are or may be exposed.

- 3) Obtain and make available to employees MSDSs for every hazardous chemical in the workplace.

- 4) Insure that all hazardous chemical containers on site are properly labeled.

- 5) Develop an employee training program to inform employees of physical and health hazards of chemicals and how to protect themselves.

- 6) Establish emergency procedures.

- 7) Establish proper work procedures in handling hazardous chemicals.

- 8) Develop a record system for inventory and training.

- 9) And develop a written hazard commu-

nication program.

The written Hazard Communication Program must explain how the employer intends to meet the law's requirements. It must include the hazardous chemical list, location and availability of MSDSs, and the employee training program.

Employees must be given the following information:

The MSDS says what a chemical is, why it's hazardous, and how to use it safely.

- Requirements of the worker right-to-know law.

- Operations in the work area where hazardous chemicals are present.

- Location of the written HazCom program, hazardous chemicals lists, and MSDSs.

Training requirements include the following:

- 1) Methods and observations employees can use to detect the presence or release of a hazardous chemical in their work area.

- 2) Health and physical hazards of chemicals in the work area.

- 3) Measures employees can take to protect themselves from chemical hazards and procedures implemented by the employer to provide protection, such as safe work practices and personal protective equipment.

- 4) How to read and interpret hazard information found on labels and MSDSs.

- 5) And how contractors or non-employees in the workplace are to be informed of chemical hazards.

Training is to be done when the employee is initially hired or assigned to a work area where hazardous chemicals are present. Although refresher courses are not required, any new hazard or hazardous chemical introduced into the workplace requires additional training.

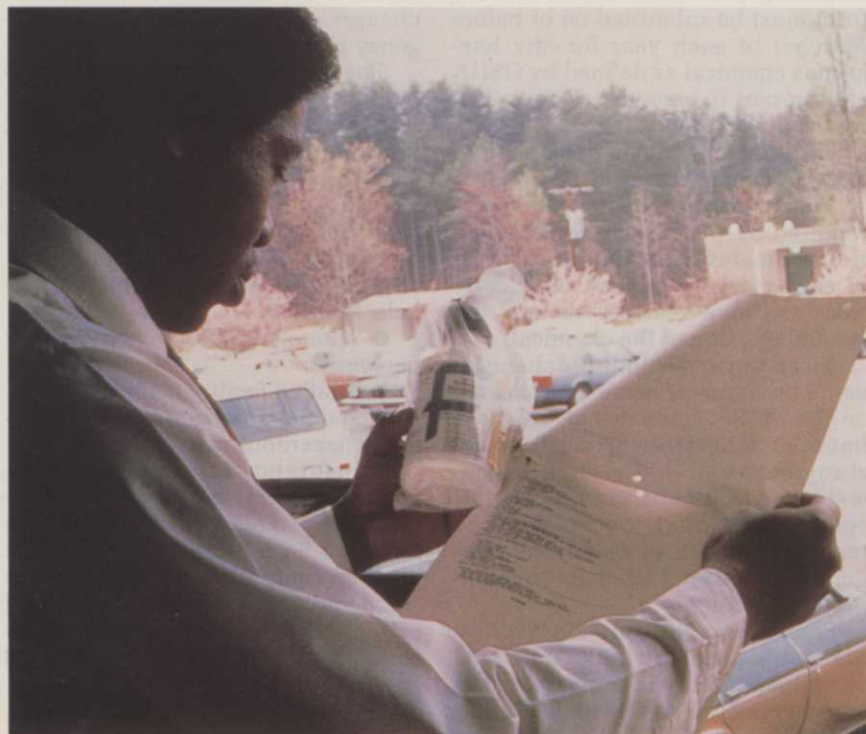
Material Safety Data Sheets

The MSDS identifies what the chemical is, details why it is hazardous and tells how to work with it safely. Manufacturers of hazardous chemicals must provide MSDSs to their customers. If the customer is a distributor, the distributor must provide the MSDS to his customers, and so on down the line.

You should make sure that MSDSs you receive are complete and adequately explain hazards, that you have MSDSs for all chemicals on site, and that employees have access to MSDSs and can understand information on them.

SARA Title III

SARA Title III is administered by the EPA rather than by OSHA. It was included in the 1986 Superfund Amendments and Reauthorization Act (SARA). Title III of the Act is also known as the "Emergency Planning and Community Right-to-Know Act." This law has four major components: Community Right-to-Know Reporting (Sections 311 and 312); Emergency Notification (Section 304); - Emergency Planning (Sections 301-303); and Toxic Chemical Release Reporting (Section 313, not discussed here -



Purveyors of hazardous chemicals are responsible for informing employees and the community at large about the control products used at your facility.

EMPLOYEES MUST BE GIVEN THE FOLLOWING INFORMATION:

- ✓ Requirements of the worker right-to-know law
- ✓ Operations in the work area where hazardous chemicals are present
- ✓ Location of the written HazCom program, hazardous chemicals lists, and MSDSs

applies to manufacturers only).

Community right-to-know

Community Right-to-Know Reporting businesses are required to report information about hazardous chemicals at their sites to the Local Emergency Planning Committee (LEPC), State Emergency Response Commission (SERC), or local fire department. Physical and health hazards of chemicals are to be reported by indicating which—if any—of the five EPA hazard categories applies: Immediate (acute) Health Hazard, Delayed (Chronic) Health Hazard, Fire Hazard, Sudden Release of Pressure, and Reactive Hazard.

Section 311 requires a one-time submission listing hazardous chemicals present at a facility. Alternatively, MSDSs may be provided. The lists or MSDSs are to be provided for all hazardous chemicals for which OSHA requires an MSDS if present in amounts greater than or equal to their Threshold Planning Quantity (TPQ). Currently, the TPQ is 10,000 pounds, except for chemicals designated as "Extremely Hazardous Substances" (EHSs) in Section 302 of SARA Title III.

TPQ listings

The TPQ for many EHSs is listed in Section 302. For those not listed, the TPQ is 500 pounds (or 55 gallons). These TPQs are subject to change by EPA. The list or MSDSs must be submitted within three months after the facility first becomes subject to Section 311.

It is recommended that a list rather than MSDSs be provided, since every revised MSDS received by the facility must be re-submitted to the LEPC,

SERC and fire department. The list must include the EPA hazard categories for each chemical, chemical name, common name, and hazardous components of each substance, and, for mixtures, the identity of individual elements or compounds which are hazardous.

The LEPC, SERC, or local fire department may later request an MSDS for any chemical on the list.

Section 312 is an annual responsibility requiring more detailed information on chemical hazards and handling practices. An inventory form must be submitted on or before March 1 of each year for any hazardous chemical as defined by OSHA and present in amounts as described for Section 311 reporting.

Facilities may submit either a Tier I form or the more detailed Tier II form.

Tier I consists of a list of chemicals reported by the EPA hazard categories, estimates of maximum amounts of each category present on a daily basis and on a yearly basis, and the general location of the chemical.

Tier II reports include the chemical name or common name as indicated on the MSDS, estimates of the maximum amount of the chemical present at any given time during the year, general location, and description of storage. State, local, or emergency response officials, as well as the public, may request Tier II information from the facility.

Emergency Notification Section 304 requires that the LEPC and SERC be notified if there is a release of certain chemicals in excess of the Reportable Quantity (RQ) established by EPA for each covered substance. Chemicals covered include the Sec-

tion 302 EHSs and CERCLA hazardous substances.

Releases to the environment which go beyond the facility boundary must be reported, although EPA encourages reporting all releases for which there is a risk of movement offsite.

If a CERCLA chemical is involved, the National Response Center also must be informed, even if the release stays on your own property.

EPA has proposed to designate EHSs not on the CERCLA list as CERCLA hazardous substances, so that all releases, whether off your property or not, would be reportable on the local, state, and federal level. It is recommended that all of these groups be notified whenever any substance is spilled in an amount exceeding its RQ.

Emergency planning

Any facility which has any of the Section 302 Extremely Hazardous Substances present in amounts over the TPQ must notify the SERC. You should work with the local fire department or LEPC to develop an emergency plan.

As a first step, appoint an emergency coordinator for your facility. Give his or her name, along with a copy of the emergency plan, to the fire department and LEPC. The plan should also be readily available to employees and extra copies should be filed at primary and secondary facility contact people's homes. The plan should be modified whenever changes at your facility affect emergency planning provisions.

The emergency plan should include:

- procedures to follow for spills, fire, or explosion;
- responsibilities of facility personnel;
- list of available safety and clean-up equipment and its location;
- product safety information (labels, MSDSs);
- phone numbers of emergency personnel;
- detailed facility map;
- special instructions for especially hazardous materials; and
- insurance information (name and phone number of agent).

While compliance with these two laws is a legal requirement, the real benefits come from providing a safe workplace for your employees and acting as a responsible corporate citizen in your community. **LM**

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