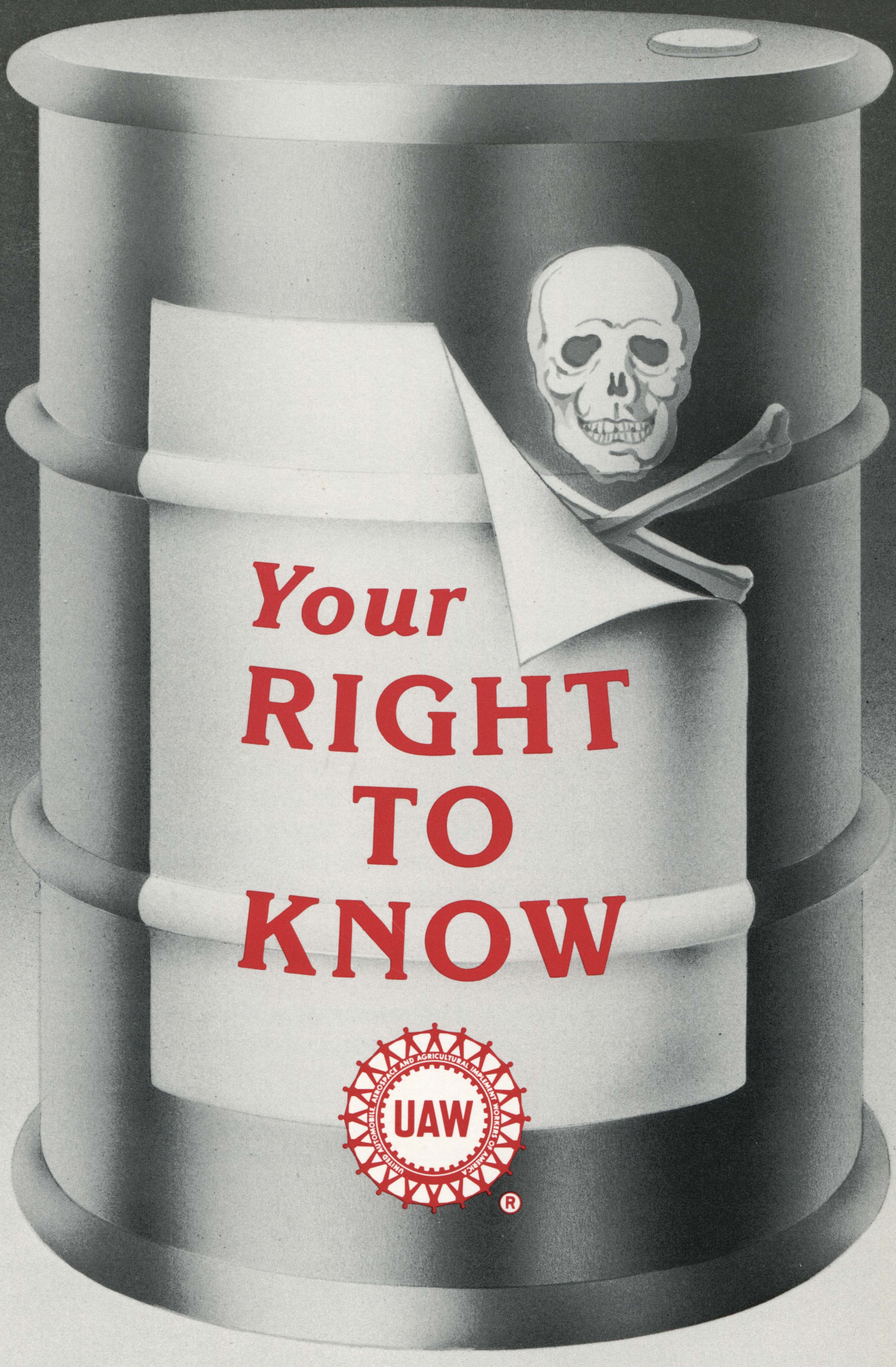
A GUIDE TO CHEMICAL HAZARDS AND HEALTH & SAFETY IN THE WORKPLACE



Your RIGHT TO KNOW

UAW

UNITED AUTOMOBILE, AEROSPACE AND AGRICULTURAL IMPLEMENT WORKERS OF AMERICA

HAZARD COMMUNICATION GUIDELINES

"Right to Know has become a leading issue for workers. Labor, community and environmental groups together have won the right to better information on hazardous chemicals. Now, we must use that information to get the best protection in the workplace. We must remember that occupational disease is preventable. Our union will use all of our resources to ensure that our membership is being protected."

Owen Bieber, President, UAW

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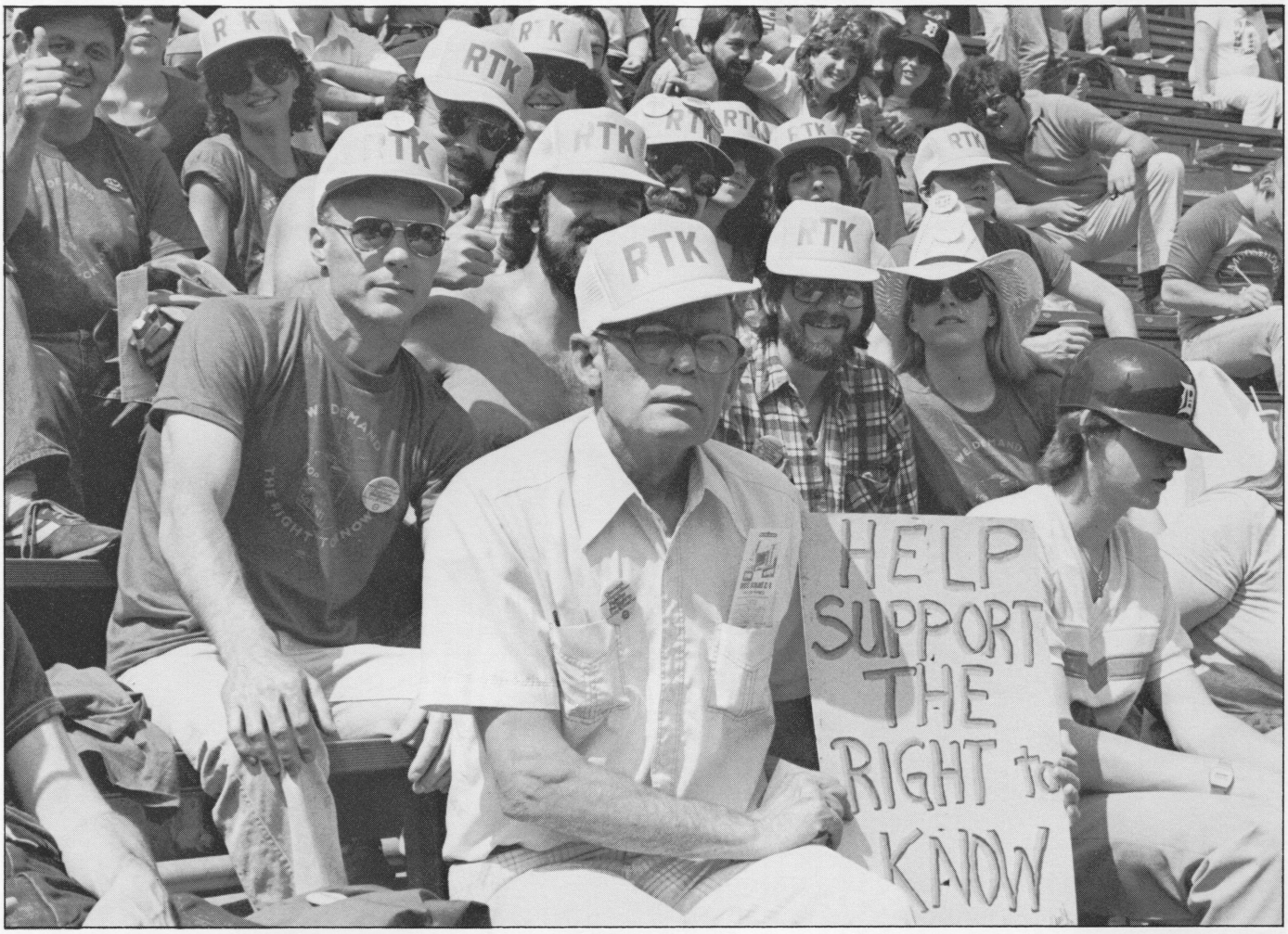

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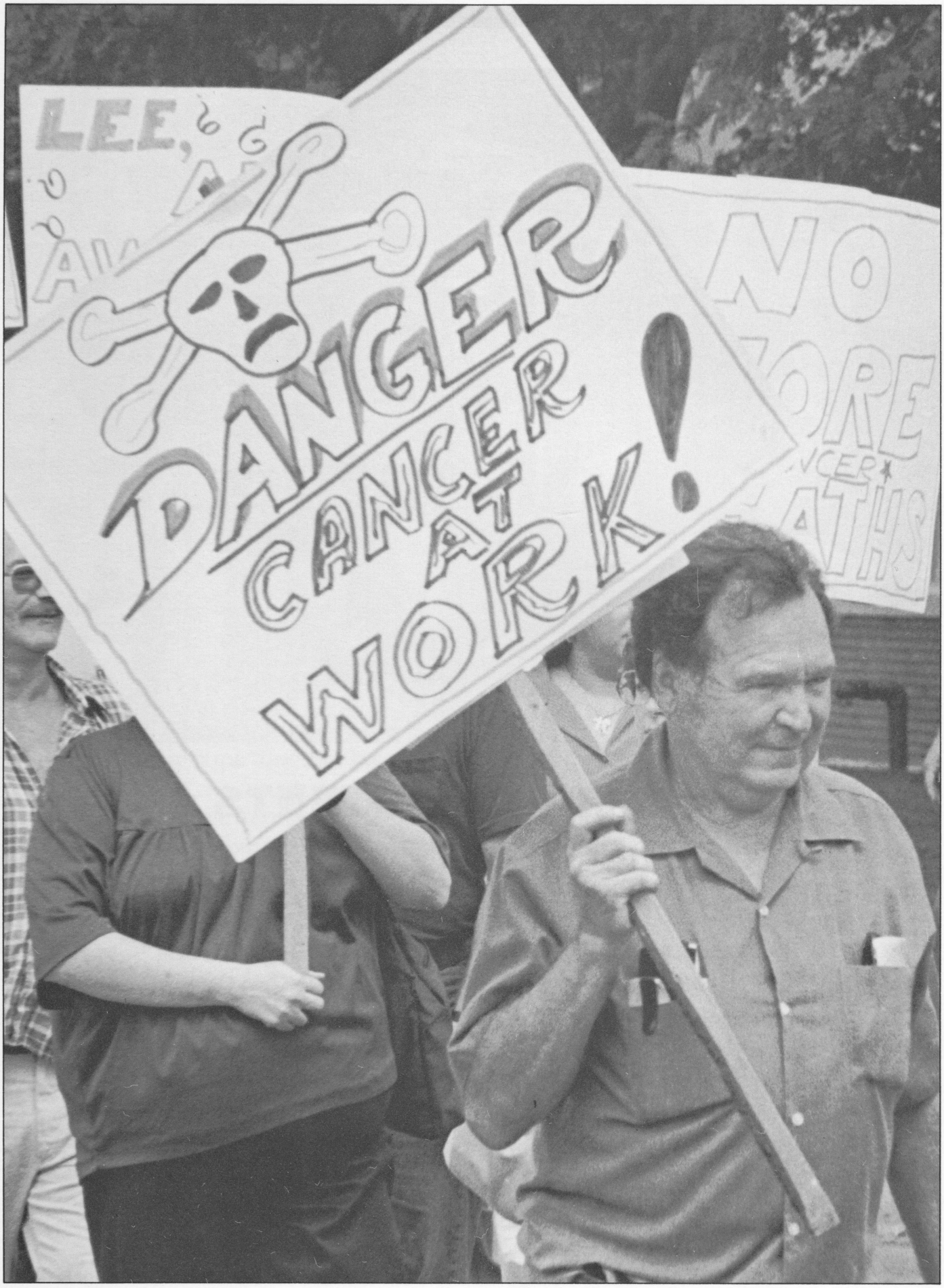

LEE,
DANGER
CANCER
AT
WORK!
NO

RIGHT TO KNOW
INTRODUCTION

The right to know about chemical hazards is an important issue for workers and the community. Health and safety activists are winning this right to complete information for hazardous chemicals on the job and in the community. The essential components to this right have three parts:

- **Full ingredient information on all products revealed;**
- **All known and suspect health and safety hazards disclosed;**
- **Proper control of hazardous substances explained.**

This information should be made available to every single worker and community member. This guide will assist union representatives to implement Right-to-Know in their workplace. It details the provisions of OSHA Hazard Communication Standard CFR 1910.1200. This standard was passed by OSHA in 1983 and sets **minimum** requirements for worker access to information and training. Many state and local regulations are more comprehensive than the federal law, improving worker and community rights. The UAW is committed to improve Right-to-Know provisions in order to assure complete information for all workers and community members.

The OSHA Hazard Communication Standard has two effective dates:

November 25, 1985 — Chemical manufacturers must provide health and safety information on **LABELS** and **MATERIAL SAFETY DATA SHEETS (MSDS's)** to employers with shipments of products. Union representatives should demand they receive and review all incoming labels and MSDS's.

May 25, 1986 — All employers covered by the standard must distribute this information to employees and provide training. Union representatives should audit the entire program to assure it is complete and accurate.

IMPLEMENTING RIGHT TO KNOW AND HAZARD COMMUNICATION

This outline is a guide for union representatives in implementing the federal OSHA Hazard Communication Standard (HCS) and state Right-to-Know laws.

1. REVIEW THE WRITTEN PROGRAM.

The HCS requires that each workplace have a detailed written plan describing how each aspect of the requirements of the HCS will be implemented. Union representatives should ask for a copy of the plan and for open discussions on the program. Make sure that the written plan states exactly how employees will be given access to information on Material Safety Data Sheets (MSDS's) and how, and by whom, worker education and training will be conducted. **Every worker has a right to a copy of the written program and appropriate MSDS's.** By reading the hazard communication plan, you should be able to determine:

- Which persons, by name, job title, or both, are responsible for the hazard communication program and each of its parts.
- How the company will insure that materials don't come into the plant **until** an MSDS has been received and reviewed for hazards.
- Who evaluates the dangers of chemicals so that controls can be implemented and appropriate warnings are given to workers.
- What will be done when MSDS's or labels are found to be inaccurate or inadequate.
- What sources of information will be used to evaluate hazards.
- Where MSDS's will be stored, and how can they be retrieved.
- How a worker will go about getting a copy of an MSDS for something he/she is exposed to.

A list of hazardous chemicals in the workplace must be part of the written program.

- Who will design and conduct training and on what schedule.

2. COMPILE AND REVIEW EXISTING LABELS

The Hazard Communication Standard requires that labels from suppliers contain the following information only:

- Product identity, such as chemical or trade name;
- Appropriate hazard warnings (This should include all health and safety hazards); and
- **NAME and ADDRESS** of the manufacturer or other responsible party.

This is inadequate because the label does not have to list all chemical ingredients by their proper chemical names. Local unions should attempt to convince management to upgrade labels by including real chemical names, especially for hazardous ingredients. In larger plants, the union may be able to persuade the employer to demand a more complete label from the supplier.

Employers are required to label transfer containers (see page 15 for details). Employer labels need only list two items, the product identity and the hazard warnings. Local unions should request their employers to use labels which display the names of hazardous ingredients. Local union representatives should review all existing labels, with special emphasis on warnings of serious health hazards which may come from long-time, low-level exposures. These may include organ damage such as liver and kidney cancer, or reproductive hazards. **Containers improperly labeled should be impounded until the supplier provides accurate information.** Although not a legal requirement, this should be part of an effective right to know program. OSHA does require employers to obtain labels and MSDS's before using chemicals.

3. EVALUATE ALL MATERIAL SAFETY DATA SHEETS.

In preparing MSDS's, chemical suppliers have often concealed the identity of ingredients and the potential hazards. Beginning November 25, 1985, the HCS requires suppliers to identify all hazardous ingredients and warn of all known hazards. Employers may accept the manufacturer's or importer's hazard determination, unless they choose to do their own. An employer may easily become a chemical manufacturer. For example, a manufacturing employer with welding operations is required to evaluate the hazards of welding fumes. The local union must test the employer's MSDS system for completeness by asking the following questions:

a. Does the MSDS list specific chemical ingredients?

Many data sheets list ingredients by incomplete or general terms which conceal their true chemical identity and make it impossible to check whether hazard warnings are accurate. Data sheets of this type should be rejected on the basis of incomplete names. Recognizing phony chemical names is a task with which workers may need some professional help. However, much can be done by using common sense. Here are some examples:

- ***Does the chemical appear on RTECS*?***

If yes, it is correctly identified.

**(NIOSH Registry of Toxic Effects of Chemical Substances).See bottom of this page for ordering information.*

- ***Does the ingredient have a CAS number*?***

If yes, it is correctly identified. CAS numbers can be used to find out the chemical names of the ingredients.

**(American Chemical Society's Chemical Abstract Service)*

- ***Does the ingredient have a plural name, such as "aromatic hydrocarbons"?***

This may be **unacceptable**. There may be hundreds of different chemicals in a chemical family, some of which pose special hazards.

- ***Does the ingredient name describe a chemical function, such as "plasticizer" or "surfactant"?***

This is **unacceptable.**

b. Are all the hazard warnings included on the MSDS?

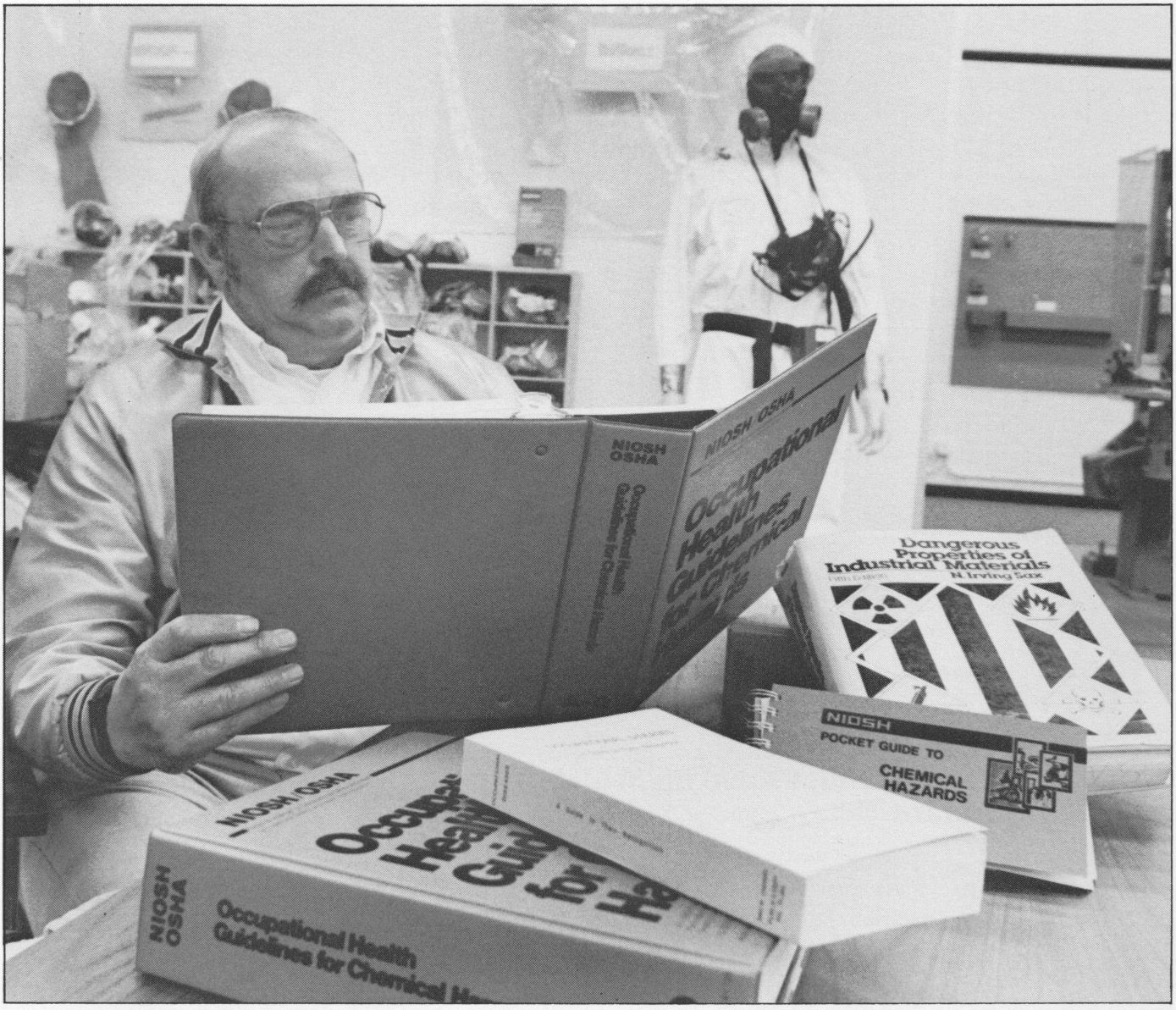
You cannot determine if the hazard warnings are complete or accurate unless the MSDS lists **all** the chemical ingredients. The HCS does not require suppliers to include percentages, but suppliers should be pressured, whenever possible, to disclose 100 percent of all ingredients. Buyers/users can often demand complete information on chemical ingredients as a prerequisite for doing business. Many big companies already require this information.

Once you have the chemical names of ingredients, you must check the hazard warnings against a reliable reference to determine if they are complete. All too often the hazard statement will under-report the potential for chronic, long-term health effects.

Take the chemical names of the ingredients and look up the health hazards in one of the following references:

- **NIOSH Registry of Toxic Effects of Chemical Substances (RTECS)**

Contact the Government Printing Office (GPO) at 202-783-3238 to order the latest supplement to RTECS. Price: $27.00. Ask for the supplement #017-033-00421-8. The entire **RTECS** is available on microfiche for $34.00.



- **NIOSH Pocket Guide to Chemical Hazards,** NIOSH Publication 85-114
  This has recently been reprinted. Order from NIOSH. Price $5.00.
- **NIOSH/OSHA Occupational Health Guidelines to Chemical Hazards,** NIOSH Publication 81-123
- **Occupational Diseases — A Guide to Their Recognition,** NIOSH Publication 77-181

Call NIOSH at 513-533-8287 for information on the availability of these books. If not available, ask to be put on their waiting list for reprints, or write Public Dissemination, DSSDTT, NIOSH, 4676 Columbia Parkway, Cincinnati, Ohio 45226. Ask also to be put on their mailing list for new publications.

- **Work is Dangerous to Your Health,** Stellman and Daum
- **Chemical Hazards of the Workplace,** Proctor and Hughes

These are available through bookstores or libraries.

Results of any significant laboratory or human studies documenting health effects must be disclosed, even if the chemical supplier or employer disagrees with the study. Many MSDS's will be out of compliance because suppliers often fail to disclose chronic health hazards, such as liver, kidney, or heart damage, which were found in animal studies. Consulting the above references will help the local union discover the existence of such information. The local union should challenge the supplier for providing incomplete MSDS's, and it may also file a complaint with OSHA. Products should not be used unless a complete and accurate MSDS is available.

c. Are MSDS's readily accessible to workers during each work shift?

The HCS guarantees that workers have the right to review the MSDS for any hazardous material they may be exposed to. The procedure for providing access to MSDS's must be included in the written hazard communication program. This procedure must be designed to minimize barriers to information. **Readily accessible in the work area** means that a worker who asks for an MSDS should get it **the same day** without having to leave the work station.

The following situations would not be acceptable according to the requirements of the HCS.

- Programs which cannot provide an MSDS on an off-shift because information is locked up or no one can operate a computer terminal.
- Requirements that a worker sign a form explaining or justifying the need for the MSDS.
- Foremen who discourage workers from making requests.

d. The employer must have an MSDS for all chemicals covered by the standard.

For practical purposes, your employer should have MSDS's for all products. If your employer says he does not have an MSDS, it's his responsibility to obtain one from the manufacturer, importer or distributor as soon as possible. No blank spaces on the MSDS's are permitted. The MSDS shall be marked to indicate that "no applicable information was found." In addition, new information on chemicals must be added within three months of when the employer became aware of it. MSDS's must have a preparation date on them.

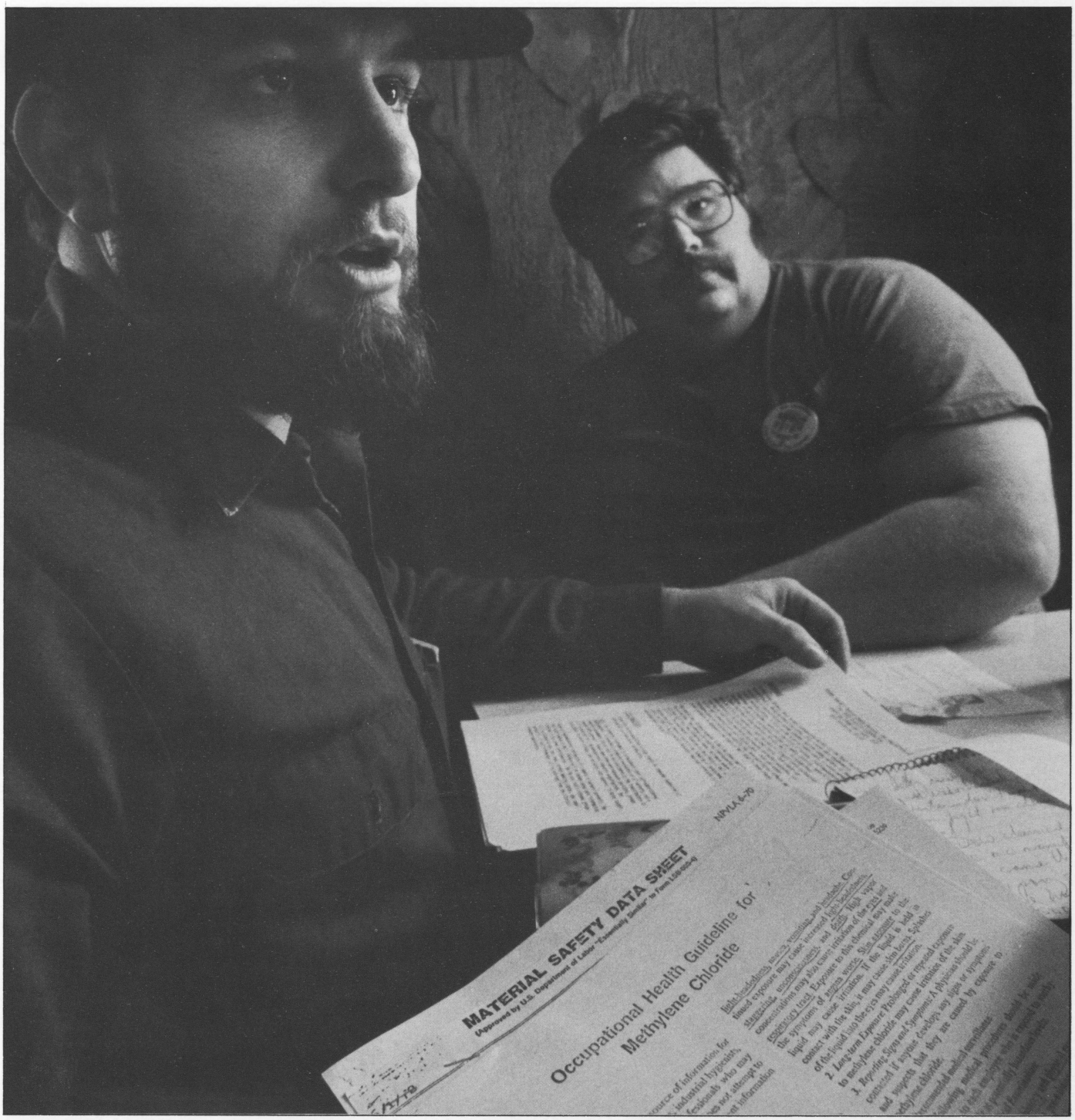
Remember, the employer must provide individual workers and union representatives with copies of all MSDS's, according to the OSHA standard on Access to Medical and Exposure Records, CFR 1910.20. Copies of the MSDS's must be provided at **no charge within 15 days after a written request has been made.**

4. BEGIN MONITORING THE EMPLOYER'S HAZARD COMMUNICATION SYSTEM.

It will take a great deal of time to obtain all necessary information from suppliers and fill gaps in existing information. For this reason, employers should not be allowed to stall for very long until the necessary information and training programs are implemented.

The local union should make sure that the employer is doing everything possible to comply with the standard by checking the following:

- Has the employer surveyed the workplace and developed a list of products that are being used?



Leaders of UAW Local 1889 plan a health and safety campaign at their plant.

- Is there an MSDS available for each product?
- Have unlabeled containers been isolated until properly identified?
- Has information on MSDS's and labels been compared for consistency?
- Has the accuracy of health hazard warnings on labels and MSDS's been checked?
- Have emergency phone numbers been verified?

By keeping track of your employer's activities, the local union can help insure that adequate and complete information on hazardous materials is available and easy to get.

5. NEGOTIATE AND IMPROVE TRAINING PROGRAMS

According to the HCS, employers will have to provide extensive training and education programs for workers who are exposed to hazardous chemicals. The requirements are extremely flexible, which means employers may try to find ways to cut corners. To guard against this, the local union should be actively involved in demanding high-quality training. Although the standard is silent on the issue of collective bargaining, the union has a right to negotiate any part of the training program. Before doing so, here are some issues to consider.

a. Who will do the training?

A number of management consultants have developed training programs in response to the HCS. Most of these were developed by employers for employers, and so they do not give workers complete information on hazardous chemicals. Higher quality programs may be available from COSH groups or university labor education programs. Before any group or individual is selected, the local union should demand that the trainers meet these minimum criteria:

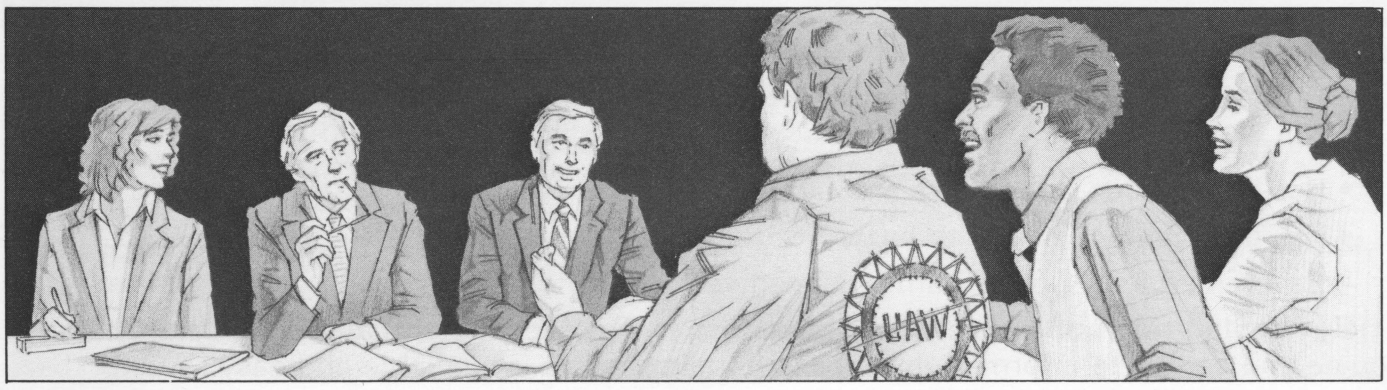
- Ability to communicate
- Acceptability to workers, union and management
- Work-related educational experiences
- Broad knowledge of total operations
- Knowledge of hazards and controls

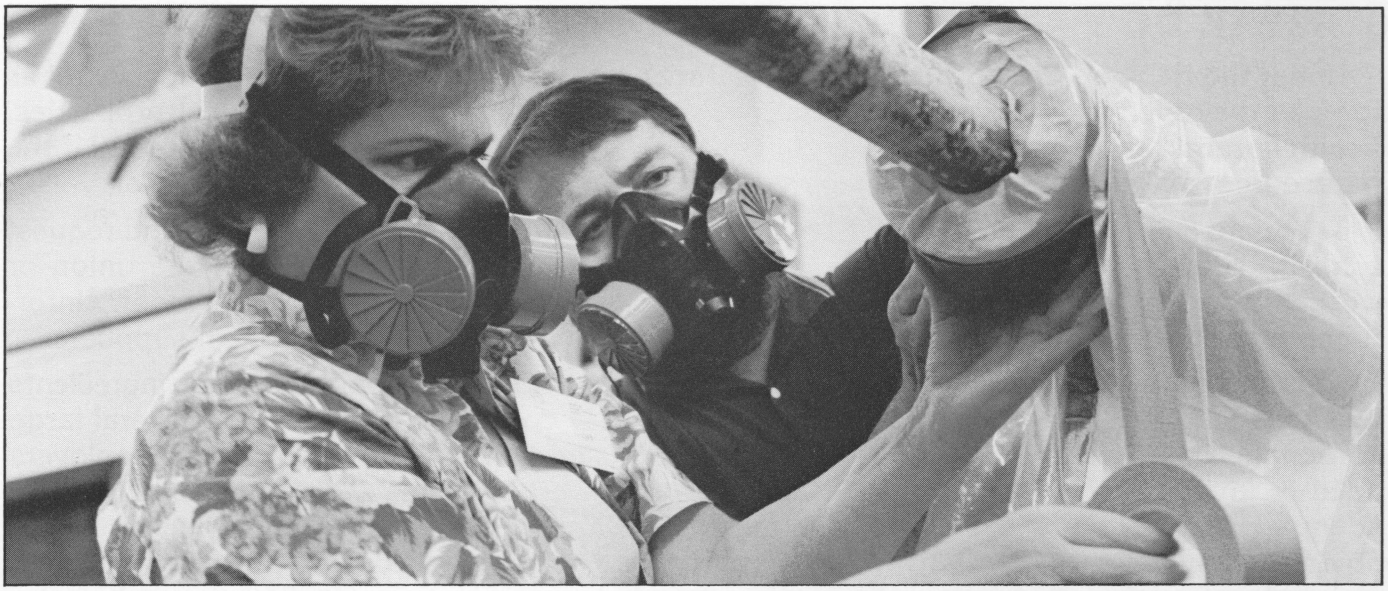
Without these qualities, you may be stuck with a training program that does not give workers the information they need. **Demand the best!**

b. What does the training include?

At the very least, the training program has to cover those subjects required by the HCS. In addition, the people doing the instruction should develop course objectives, which explain what knowledge workers will learn and what behaviors will be reinforced. These objectives should include more than urging workers to use existing protections, such as respirators. The training should also result in workers:

- Asking for more information
- Requesting hazard evaluations of their jobs
- Identifying dangerous conditions and reporting them to management
- Devising new protections
- Demanding improvements in existing conditions.





The local union should also have an opportunity to review any material that will be used and make changes. Unless you demand this right, the training program may focus on workers' personal habits, such as smoking and diet, instead of changing workplace conditions.

c. How will the training program be set up?

A lot of decisions go into the making of a good educational program. Again, the local union should demand a quality product based on the following suggestions:

- A review of the operations must be done to determine which workers need what training. The law requires that workers be trained at the time of initial assignment and when new hazards are introduced.
- A variety of teaching methods (lecture, discussion, audio-visual, problem solving) should be used to maintain people's interest.
- The class size should be limited to allow the maximum participation; every worker should be able to get all his/her questions answered.
- Enough time should be devoted to each session to give workers a chance to provide feedback and ask questions. A good training program would involve at least four hours training for each worker depending on chemical exposures.
- The sessions should be scheduled so that all workers will be encouraged and have an opportunity to attend.
- A named person should be in charge of monitoring new hazards and job changes so that workers will be trained before they are exposed to any hazards.
- The training must be evaluated while it is being done, and after it is completed, to insure workers are actually learning the material and using it.
- People **should not be required to sign any statements** regarding the quality of the training or that they understand the information contained in the training program.

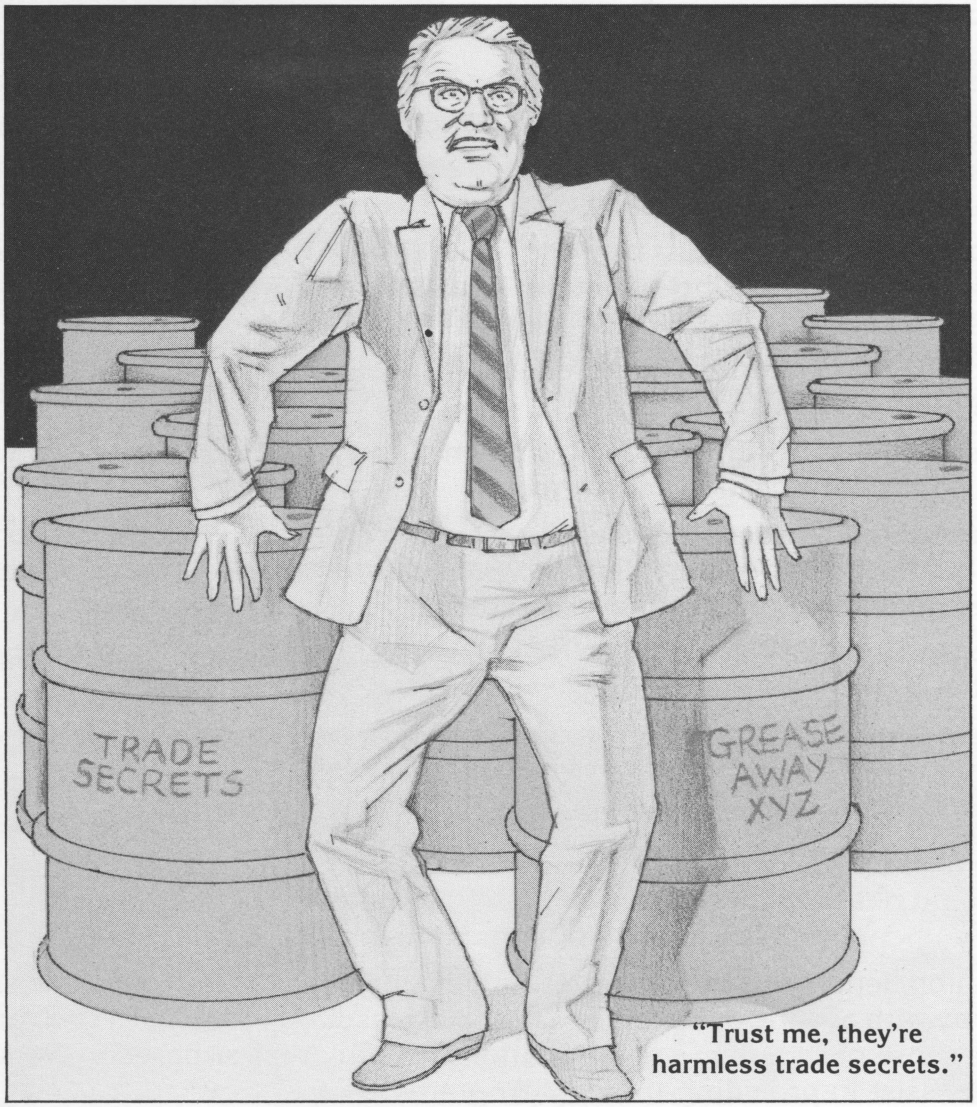
Unless the union demands and negotiates for a quality training program, the employer may attempt to get by with as little as possible. This could result in more harm than good by giving workers a false sense of security. The International Union or labor-based university programs may be able to assist in providing training programs.

6. BREAK DOWN TRADE SECRET BARRIERS.

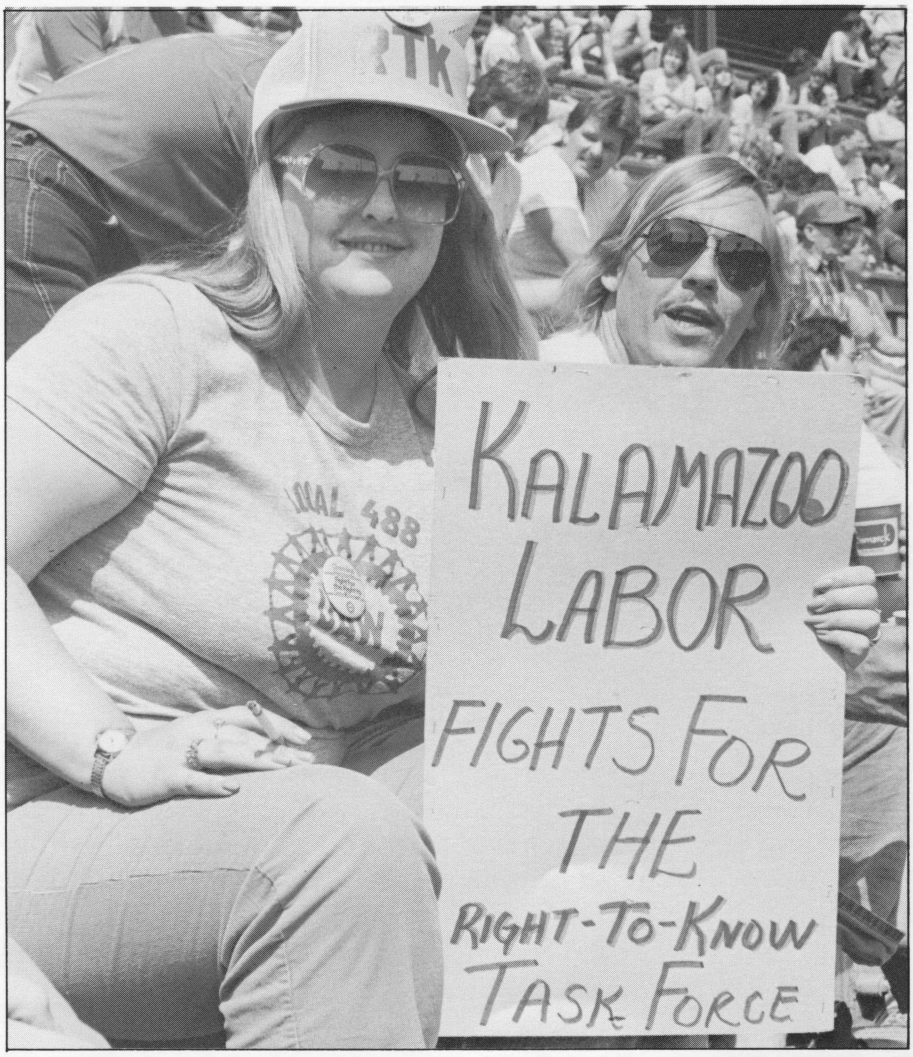
Under the HCS, chemical suppliers can claim any hazardous ingredient as a trade secret as long as they identify their claim on the MSDS. They must still reveal chemical properties, health hazards, and protective measures. This is not acceptable because **you cannot tell if the hazard information is accurate unless you know the specific chemical ingredients.**

There are a number of ways to get access to this information. First, the union could request a health professional to request the information from the supplier. Second, the union or worker could get direct access as long as they signed a confidentiality agreement. Unfortunately, both these methods are filled with loopholes in favor of the chemical suppliers.

A better approach is to have your employer demand that all suppliers list all ingredients on the MSDS, regardless of trade secret claims, as a condition of purchase. Several large companies have already demanded and received this information from suppliers. Employers need to know what the hazardous ingredients are in order to monitor the air and provide adequate protection, so the demand is reasonable and necessary. Small employers would obviously have a harder time convincing any one supplier to provide ingredient information claimed as trade secrets. In this case, ask your employer to shop around for a supplier who will be more cooperative. If suppliers can make a buck, they will meet your demands.



"Trust me, they're harmless trade secrets."



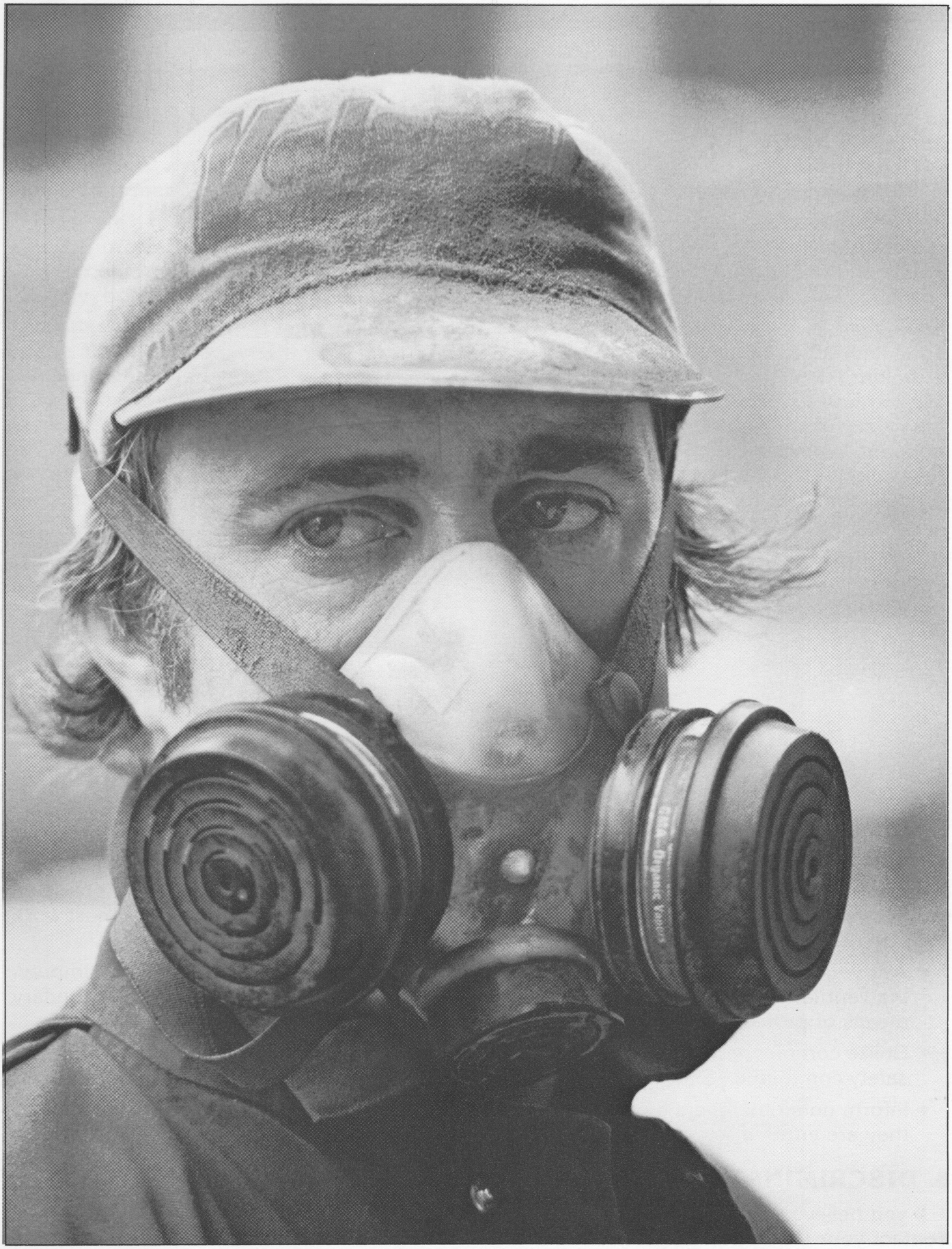
7. TAKE ACTION!

The Hazard Communication Standard allows you to get information about hazardous chemicals. It does not require employers to control exposures, nor is there any provision within **this** standard to allow workers to refuse work. **You** and your union together must work to insure that exposures are controlled.

- Ask your employer to reduce exposures by substituting safer chemicals and by improving ventilation. Protective equipment can be requested, but this should be a secondary means of protection.
- Utilize contract negotiations to win better conditions and more rights for your health and safety committee. (See list of bargaining demands on back cover.)
- Inform union members by distributing this packet. Get members to request information they are entitled to.

8. DISCRIMINATION IS ILLEGAL.

If you believe you have been fired or penalized for using this standard or any OSHA rule, contact your union **immediately** and file a discrimination complaint with OSHA. They will investigate. There also may be additional protections under other laws or your collective bargaining agreement. You could receive back pay, reinstatement, or other remedies.



Efforts should be made to control workplace hazards by engineering improvements such as ventilation before respirators are used.

REVIEWING LABELS

DANGER: Workplace Chemicals Must Have Labels

The Hazard Communication Standard (HCS) requires that labels of workplace chemicals meet certain requirements to provide adequate hazard warnings. This section will review the information required by the standard and provide a guideline to evaluate labels and determine if they are adequate. Labels are an important part of Right-to-Know programs, because they are accessible for all workers to read. The standard requires that labels contain the following information:

- **PRODUCT IDENTITY** (This includes a chemical or trade name.)
- **APPROPRIATE HAZARD WARNINGS** (This must specify what type of hazard, for example, lung, liver or kidney damage.)
- **NAME AND ADDRESS** of the manufacturer or other responsible party.

Some important points about labels include:

1. Evaluate all labels before the product is used.

Suppliers can design their own label. This will result in many different types of labels of questionable completeness. All labels must have the appropriate hazard warnings. To check this, you must know what the ingredients are and find out the hazards of these ingredients from a reliable source. Ingredient information should be on the MSDS. The hazard warning must convey the specific hazards indicated in the standard's definitions for physical and health hazards. Phrases such as "caution," "danger," or "harmful if inhaled" do not meet the intent of the standard by themselves. If, when inhaled, the chemical causes lung damage, then "lung damage" is the appropriate warning.

2. Make sure that adequate labels are placed on transfer containers.

Transfer containers must be labeled, unless they are for the sole use of the person who does the transfer from a labeled container. This is only allowed within the work shift in which it is transferred. In other words, unlabeled portable containers carrying hazardous chemicals cannot be passed around from worker to worker or between shifts. All other portable containers must be tagged or labeled with the required information.

3. Make sure that stationary process containers, such as reaction vessels, are covered by the plant hazard communication program.

Employers may use signs, placards, process sheets or other written materials as long as the following conditions are met:

- The alternative method must carry the same information required on the label.
- The written materials shall be readily accessible to employees in their work area, along with the material safety data sheets.

4. Educate the membership about the importance of labels.

The introduction of adequate labels may raise a lot of questions on the shop floor. Warnings regarding potential cancer-causing agents or reproductive hazards will generate concern and questions. Provide people with factual information and demand that the best engineering controls be implemented to protect workers on the job.

INADEQUATE LABEL

Product Name

Chlorothane YU

Hazard Warning

Hazard: Toxic by Inhalation
Avoid breathing (dust, mist, vapor, gas).
Keep container closed.
Use with adequate ventilation.

FIRST AID: If inhaled, remove to fresh air. If not breathing give artificial respiration, preferable mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.

Responsible Party

Further Information: Contact Solve-x Chemicals, 1 Slime Rock Road, Chemtown, Michigan 06660

BETTER LABEL*

Product Name

Chlorothane YU
Contains 1,1,1-trichloroethane (100%)

Hazard Warning

Hazard: Toxic by inhalation

Effects: Overexposure may result in Central Nervous System (CNS) effects including headache, dizziness, nausea, unconsciousness, death. Skin and eye irritant. Possible liver, kidney, cardiac effects.

Use: Use only with proper ventilation.
Avoid skin contact.
Avoid using in confined spaces.

FIRST AID: If inhaled, remove to fresh air. If not breathing, give artificial respiration. Call a physician.

Responsible Party

In case of emergency, contact:

Solve-x Chemicals
1 Slime Rock Rock
Chemtown, Michigan 06660
phone: (313) 888-7277

OSHA has issued instructions (CPL 2-2.38A) for enforcing the Hazard Communication Standard. OSHA states that "employers must have proper MSDS and label **before using chemicals."** In other words, an employer who begins using a product before receiving an MSDS and/or proper label will be in **violation of the OSHA law.**

Notice that this label includes the actual chemical ingredients (1,1,1-trichloroethane) and spells out the "appropriate health hazards" in terms of the damages it can cause.

READING MATERIAL SAFETY DATA SHEETS

An Important Resource for Workers Right to Know

MSDS's are data sheets that contain information about the health and safety properties of workplace chemicals. They are usually written by the supplier or manufacturer of the chemical. **Until recently, there were no specific requirements for the quality of information included on these data sheets.** The OSHA Hazard Communication Standard (HCS) requires suppliers to upgrade these data sheets and report any health hazards known about their products. This information must include any positive reports from human or laboratory studies. These data sheets are required to be "readily accessible" to employees during all work shifts. Review incoming MSDS's to insure the accuracy of information that will be available on the shop floor. The major points of reading and evaluating a typical MSDS follow:

SECTION I — PRODUCT IDENTITY

This section identifies the product and manufacturer. The HCS requires that the name of the product in this section must be **exactly** the same as the one on the label of the workplace container. The manufacturer's name, address, and emergency phone number are also given here.

SECTION II — HAZARDOUS INGREDIENTS

This is a very important section of the MSDS. Under **Hazardous Ingredients,** every chemical must be listed which is on one of the four lists designated in the federal law or has been reported to have toxic properties in any test. Two of these lists, the National Toxicology Program (NTP) list and the International Agency for Research on Cancer (IARC) list, are for **chemicals suspected of causing cancer.** Any chemical making up 0.1 percent (1 part in 1,000) or more of the product which is on either of these lists should appear on the MSDS. The third list has chemicals for which an organization called the American Conference of Governmental Industrial Hygienists (ACGIH) has put out exposure recommendations known as threshold limit values (TLVs). Any chemical which is on this list making up 1 percent (1 part in 100) or more of the product should appear on the MSDS along with the exposure limit (the TLV). The TLV will be either in ppm (parts of the chemical per million parts of air) or mg/m^3 (milligrams per cubic meter — that is weight of the chemical in a certain volume of air). In general, **the lower the TLV the more toxic the chemical is.** You may also see the notation "**skin**" after a TLV. This indicates that the chemical can be easily absorbed into the body through skin contact. The fourth list is the OSHA Permissible Exposure Limit (PEL) list. Percentages of ingredients would be helpful but are not required by the standard. Union representatives should argue for complete ingredient information and percentages.

This is a key section since good ingredient information is essential to researching chemicals for complete health hazard data. **Trade secret claims** will have to be identified on the MSDS for any hazardous ingredients not included in this section. This is usually indicated by a claim of "Proprietary Formulation" or something similar. The supplier is supposed to include all health hazard data of the secret ingredients, but the only way to check this is to challenge the trade secret claim and get the ingredient information.

SECTION III — PHYSICAL CHEMICAL CHARACTERISTICS

This section tells you whether the material is a powder, paste, liquid, aerosol, etc., under

normal conditions. This should match what the material you are interested in looks like. Important terms in this section include:

The **boiling point** is the temperature at which the substance will rapidly change from a liquid to a gas. For example, the boiling point for water is 212 °F (meaning Fahrenheit) which equals 100 °C (meaning Celsius). **The lower the boiling point of a product, the more quickly it will evaporate and put potentially harmful vapors into the air.**

The **vapor pressure** (v.p.) tells how readily something evaporates, making it airborne and available to be inhaled. For example, 1,1,1-trichloroethane has a v.p. of 100 mm at 20 °C (68 °F), but methylene chloride's v.p. is 350 mm at 20 °C (68 °F). This means that methylene chloride evaporates much quicker than 1,1,1-trichloroethane.

SECTION IV — FIRE AND EXPLOSION HAZARD DATA

This section describes the fire hazards of products.

The **flash point** of a liquid is the lowest temperature at which the liquid can be ignited (start to burn) if it comes in contact with a spark, flame or other ignition source. Liquids with flash points below 100 °F (about 38 °C) are called **flammable**. Liquids with flash points between 100 °F (38 °C) and 200 °F (about 93 °C) are called **combustible**. Flammable and combustible products are serious fire hazards and require special storage and handling procedures.

SECTION V — REACTIVITY DATA

Gives information on conditions that could cause the product to react dangerously or to decompose and release dangerous materials. This can be very helpful information if a substance makes contact with heated surfaces or when chemicals are mixed together. This information usually pertains to immediate reactions. There is generally not adequate information on the long-term health effects of chemical mixtures.

SECTION VI — HEALTH HAZARDS DATA

This section should list any of the harmful effects which may be caused by the chemicals in the Hazardous Ingredients section. Hazards may include problems with skin, eyes, breathing, allergy, cancer, reproduction, or damage to internal organs (such as liver or kidney). The standard also requires that the primary routes of entry into the body be shown on the MSDS. These health hazards may be acute hazards (short-term) or chronic health hazards (long-term). The supplier has to report any positive finding on a substance, whether they agree with it or not. This section must state whether the substance is thought to cause cancer (a carcinogen) or reproductive problems. **Most** current MSDS's **do not** report all of this information required by the new rule, and we anticipate lots of data sheets still to be out of compliance under the Hazard Communication Standard.

SECTION VII — SPILL OR LEAK PROCEDURES

Gives instructions on precautions and equipment for handling spills or leaks. Safe waste disposal methods are also described.

SECTION VIII — CONTROL MEASURES

Lists protective equipment and proper ventilation to be used with the material — probably the **minimum** measures. This section should contain recommendations on the type of glove material that is impervious to the chemical and a selection guide for respirators.

* Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard. 29 CFR 1910.1200. Standard must be consulted for specific requirements.

U.S. Department of Labor

Occupational Safety and Health Administration

(Non-Mandatory Form)

IDENTITY *(As Used on Label and List)*

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section 1

Manufacturer's Name

Address *(Number, Street, City, State, and ZIP Code)*

Emergency Telephone Number

Telephone Number for Information

Date Prepared

Signature of Preparer *(optional)*

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% *(optional)*

Section III — Physical/Chemical Characteristics

Boiling Point

Specific Gravity (H_2O = 1)

Vapor Pressure (mm Hg.)

Melting Point

Vapor Density (AIR = 1)

Evaporation Rate (Butyl Acetate = 1)

Solubility in Water

Appearance and Odor

Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used)

Flammable Limits — LEL — UEL

Extinguishing Media

Special Fire Fighting Procedures

Unusual Fire and Explosion Hazards

Page 1 *(Continued on Reverse Side)*

*The old OSHA 20 Form for MSDS's may not be in compliance with the new standard. They should be rejected and returned to the supplier until complete data sheets are available.

NOTES TO MSDS SHEET

1. Check for the following information on MSDS's. This form is a draft MSDS issued by OSHA and is non-mandatory. Other forms used by companies should be at least as complete as this one.
2. Check that the product identity is the same as on the label.
3. Check to see if all ingredients are listed by chemical names and CAS numbers. If trade secret claims are made, request full disclosure from supplier.
4. Check to see if the MSDS is current. The HCS requires the **date of preparation** on the MSDS. Those prepared before 11/85 are probably out of compliance with the new Right to Know standard.
5. Check that all limits and percentages (%) are noted. Although the HCS does not specifically require NIOSH-recommended limits, the union should request these on MSDS's.
6. Check this section to see if liquids vaporize quickly.
7. Check fire hazard data.

Section V — Reactivity Data

Stability | Unstable | Conditions to Avoid

Stable

Incompatability *(Materials to Avoid)*

Hazardous Decomposition or Byproducts

Hazardous Polymerization | May Occur | Conditions to Avoid

Will Not Occur

Section VI — Health Hazard Data

Route(s) of Entry: | Inhalation? | Skin? | Ingestion?

Health Hazards *(Acute and Chronic)*

Carcinogenicity: | NTP? | IARC Monographs? | OSHA Regulated?

Signs and Symptoms of Exposure

Medical Conditions Generally Aggravated by Exposure

Emergency and First Aid Procedures

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled

Waste Disposal Method

Precautions to Be Taken in Handling and Storing

Other Precautions

Section VIII — Control Measures

Respiratory Protection *(Specify Type)*

Ventilation | Local Exhaust | Special

Mechanical *(General)* | Other

Protective Gloves | Eye Protection

Other Protective Clothing or Equipment

Work/Hygienic Practices

Page 2

8. Check for conditions to avoid.

9. Check to see if all health hazards are disclosed, including cancer hazards and reproductive effects.

10. Check whether procedures are adequate and being followed in the plant.

11. Check if control measures are adequate. Protective gloves should specify types of glove material, such as Viton, PVA, or nitrile, for certain solvents. Make sure that all required controls are implemented in the work area.

12. Check that all spaces are completed as required by the HCS. Even if no information is available, the supplier must mark "not available" on the sheet.

UAW COLLECTIVE BARGAINING AGENDA FOR RIGHT TO KNOW

GENERAL

1. Company will not purchase materials without an adequate data sheet and label. Union will be able to review documentation prior to purchase of materials.
2. Company will request that suppliers provide all ingredients with identifiable chemical names and percentage composition on a non-confidential basis on material safety data sheets.
3. Basic toxicology references should be checked to confirm that health warnings on supplier-provided materials are appropriate.
4. Potential hazards of materials should be jointly evaluated by the local health and safety committee during in-plant surveys.

MATERIAL SAFETY DATA SHEETS

5. Complete formulation and hazard data should be available to union and exposed workers on the MSDS.
6. Company should agree to provide a copy of an MSDS to workers on request within the shift it is requested.

LABELS

7. Transfer containers will be labeled with all names of hazardous ingredients and appropriate hazard warnings. Company will attempt to get suppliers to upgrade labels or will relabel incoming containers.

TRAINING

8. The training which the company is required to give under the Hazard Communication Standard will be a joint union/management program.
9. Training materials will be jointly reviewed and selected. Where outside vendors or trainers will be employed in the program, they will be jointly evaluated and the company will consider persons suggested by the union.
10. Training will be delivered jointly by teams including union representatives. Training will not generally be delivered by foremen. Foremen and union representatives will be given training by the joint program.

UAW