

Chapter 9

Hazard Communication Programs

Introduction

Hazard Communication or "Hazcom" is commonly referred to as the "Employee Right-To-Know Act". This standard, (29 CFR 1910.1200), originally promulgated by the Occupational Safety and Health Administration (OSHA) in 1985, entitled employees to a right to know the type of chemical hazards associated in the work place. The intent being that if employees and employers are aware of the chemical hazards present, they can then take appropriate measures to work more safely.

The Mine Safety and Health Administration (MSHA) has followed suit by issuing a final rule on Hazcom (30 CFR Part 47). All mining operations were required to be in compliance with the new Hazcom rule no later than March 21, 2003. Since the Hazcom final rule was issued and applied, MSHA has visited mining operations and has reviewed existing Hazcom plans and allowed mining operations the leeway to get on board with the new rule by not issuing citations if the mining operation showed good faith in trying to establish its program.

The OSHA and MSHA Hazard Communication Standards mirror each other closely. However, there are some variances that will be addressed later in this chapter.

Regardless of which regulatory agency a company falls under, the components of an effective Hazard Communication Program will be the same. The successful program must contain the following elements:

- a written program
- container warning labeling
- chemical inventory
- material safety data sheets (MSDS)
- employee training

The standards are essentially performance-oriented, which means that the standard does not specify a lot of the mechanics for the operator but puts the burden on the operator to ensure that the program is user-friendly and easily retained for the employees who must use it.

MSHA provides a great resource including an interactive training course, HazCom Tool Kit and common MSDS forms at: <http://www.msha.gov/hazcom/hazcom.htm>

Written Hazard Communication Program

Operators must develop, implement, and maintain a written hazard communication program specific to the hazards of each plant. The written program states in detail how the company plans on addressing the requirements of the Hazcom standard. Thus, in addition to the statement of company policy, the written program must specifically state the procedures to be taken by the company to:

- make hazard determinations
- ensure the proper labeling of chemical containers
- obtain and maintain a Material Safety Data Sheet (MSDS) file
- develop and keep current a chemical inventory of the hazardous materials stored and used on-site
- train employees on the hazards identified and what precautions must be taken in working with them
- inform and coordinate hazard information with “other operators” working at the plant (i.e. independent contractors, on site customers, etc.)

The Hazcom program must be designed to ensure that employees are afforded every opportunity to be familiar with the hazards associated with the chemicals and materials to which they may be exposed in the performance of their assigned duties.

It is important to note that while the operator has the responsibility to assure that no detail has been overlooked, the program should specify that each employee has the obligation to bring to the attention of his or her supervisor, any information relating to chemicals and materials used in the plant which they have reason to suspect might constitute a hazard to the health and welfare of any employee.

OSHA/MSHA compliance officers are required to review a company's written hazard communication program on every inspection. Essentially this means that regardless of the reason that OSHA/MSHA visits your site (i.e. after an accident, employee complaint, or routine inspection) a formal review of your policy will follow. The inspection will determine whether or not your written program sufficiently documents your entire hazcom effort (i.e. training- both employee and contractor, labeling, etc.)

Labels and Other Forms of Warning

Operators are required to label containers of hazardous chemicals in the work place. Labels serve as an immediate visual warning and as a reminder of the more detailed information provided on the Material Safety Data Sheets (MSDS). Small containers, such as brake cleaners, have all vital information on the label or container itself. Household quantities of such common items as dish soap and window washing liquid (Windex) do not require a listing or MSDS. Once the quantities on hand are greater than household quantities the materials must be listed.

Incorporated in the written program should be a policy statement addressing container labeling. Specifically, the policy should instruct vendors that any container in which the manufacturer's warning label is missing or defaced in any manner will not be accepted. Inasmuch as the manufacturer's labels do not always contain essential information, an additional step is often necessary. That is adopting the National Fire Protection Agency (NFPA) hazard warning system. These labels, available from any typical safety supplier, are color-coded for easy reference.

The label's color code system is as follows: Blue for Health Hazards; Red indicates the flammability; Yellow reflects the reactivity of the chemical; and White for special hazards. A number ranging between 0 and 4 will be placed in each section to indicate the severity. A "0"

means there is no hazard present. A "4" alerts employees that the chemical is extremely hazardous. The lower the number, the safer the item is. The higher the number in the diamond symbol, the greater the hazard. This very simple system is user friendly, especially in the event of an emergency when people tend to panic and forget things. This all but eliminates any detailed thinking. In addition to indicating the hazards on the NFPA labels, writing the common name of the chemical in the lower white diamond would enable an employee to refer to the alphabetical listing in the facility MSDS book and find the actual MSDS for the product without exposing himself or other employees to the chemical.

The standard essentially requires the label to identify the hazardous chemical and provide a hazard warning. A hazard warning conveys the precise hazard associated with a particular chemical and includes target organ effects where available. Phrases such as "caution", "danger", or "harmful if inhaled" are precautionary statements, not hazards. An example of an acceptable warning label is provided at the end of this chapter.

The other labeling requirement under OSHA/MSHA deals with the transfer of chemicals. The OSHA/MSHA standard states that if a chemical is transferred from one container to a portable container, and will only be used by the person making the transfer with no other personnel in the immediate area, then it does not have to be labeled. However, if other people will be using the chemical, or might be exposed to the chemical, then it must be labeled. Obviously, in order to simplify the system, it would be a good idea to label all containers.

The standard requires that chemical and material manufacturers, importers, and distributors, properly label all shipments of hazardous chemicals or materials with the identity of the product, clearly noted hazard warnings, and the name and address of the manufacturer or other responsible party.

It is the responsibility of the company to verify that chemical containers or material shipments are properly labeled at the time of receipt from the manufacturer or distributor. All containers, bins, or other receptacles in a plant covered by the standard will be labeled, tagged or otherwise marked with the identity of the hazardous chemical or material contained therein, and will show hazard warnings appropriate for employee protection. The hazard warning must be legible, in English, and prominently displayed.

Designate in writing the person who will be responsible for labeling in-plant containers, containers being shipped, and reviewing labels on containers being received. The key to labeling is to be consistent. The type of internal hazard labeling system to be used must be one uniform system.

Material Safety Data Sheets (MSDS)

Chemical manufacturers and material suppliers are required by the standard to develop a Material Safety Data Sheet (MSDS) for each hazardous chemical or material, which they produce or distribute. The format for the MSDS is specified by OSHA/MSHA, and must provide such information as the name of the chemical, physical characteristics, health and safety data, and first aid information.

The written program should include a policy statement requiring a MSDS for every type of chemical or material received, stored, and used at the plant. If it is the contention of the manufacturer or supplier that the chemical or material supplied does not meet the definition of a hazardous material as provided for in the standard, you should require the supplier to submit a letter to the effect along with supporting documentation which will then become a permanent part of your records.

A good, current, MSDS file is the heart and soul of an effective Hazard Communication Program because the MSDS serve as the primary vehicle for transmitting detailed hazard information to operators and employees.

In accordance with its medical records access standard, OSHA requires operators to maintain MSDSs for at least thirty years.

Under MSHA's rule, operators will have to retain each MSDS only as long as the chemical is present in the work place. However, at least three months prior to the disposal of any required MSDS, operators would be required to advise employees of this action and thus allow employees the opportunity to access this information.

Designate in writing a person responsible for obtaining/maintaining the Material Safety Data Sheet file. It is imperative that all management understand the importance of keeping the Hazcom list current.

Hazardous Chemicals/Materials Inventory

A listing of all hazardous chemicals/ materials (i.e. those that pose either a physical or health hazard to employees) that are used or stored in the plant must be maintained. This listing must also indicate the specific work area in the plant where exposure to the chemical/material is most likely to occur. You should also have MSDS to correspond to the chemicals listed.

To help facilitate the training of employees on the specific hazards associated with the various chemicals/materials at the plant, it is recommended that the inventory list also identify the specific hazards of each product listed.

As with all components of the Hazcom program, the chemical inventory must be kept in a prominent location and readily accessible to all employees for inspection and review during working hours.

Designate in writing a person responsible for compiling the chemical inventory. This process should also consist of an evaluation of the chemicals presently being used. If the job can be accomplished by using a less hazardous chemical, then the safer chemical must be used.

Examples of commonly accepted inventory logs are contained at the end of this chapter.

Hazard Determinations

If a company is an end-user of hazardous chemicals/materials, then the company is not required to make an evaluation as to its potential hazards. End-users must rely on information provided to them from the chemical/material manufacturer or distributor. Information relating to the physical and health hazards is provided to the end-user in the form of container labels and Material Safety Data Sheets.

The best policy is to advise your supplier that a MSDS or written statement is required from the supplier upon purchase or use of any chemical/ material at the plant. If the supplier indicates that the chemical/material in question is not a regulated substance under the Hazard Communication Standard, then simply request a written statement from them verifying that the product is not considered hazardous under the provisions of the standard.

Employee Training

Operators are required to train employees at the time they are initially assigned to work with a hazardous chemical and whenever a new chemical hazard is introduced into the work area.

Specifically, employees must be trained on:

- The requirements of the HCS
- Operations or locations where hazardous chemicals are present
- The location and availability of the written program and MSDS
- Methods and observations for detecting the presence or release of hazardous chemicals
- The physical and health risks of hazardous chemicals
- Protective measures for employees to take
- Details of Company program

By being performance oriented, the standard does not specify how often employees must be trained. That is left up to the discretion of the operator. However, in the event of an OSHA/MSHA inspection, the OSHA/MSHA inspector will interview employees to determine if adequate training has been given. Employees must be able to understand your labeling system, the hazards associated with certain chemicals used and where to find the MSDS. A general rule of thumb is to train all new hires prior to job assignments, and train all employees at least annually on the contents of your hazcom program.

The one area of training that most companies overlook deals with contractor training. The written program must contain measures or procedures on dealing with outside contractors and/or on-site customers. Contractor/on-site customers must be made aware of the type of chemical/material hazards that are on the site and that they may be exposed to. In addition to sharing information concerning hazards that are present at your plant site, procedures must also be in place to require contractors/on-site customers to provide information on the chemicals/materials that they will be bringing onto the plant site. This information must then be conveyed to your employees so that they are totally aware of all potential hazards associated with the plant. On site ready mix or asphalt plants should supply a copy of the MSDS book so that information can be reviewed with the employees.

As a final word on training, apply the "**KISS**" principle: Keep it short and simple. The key is to make sure that workers understand the hazards and more importantly, remember them. As with any

training, be sure and document your efforts. List all employees, broken down by classification (i.e. supervisor, plant worker, office/clerical, etc.). This will help you keep track of who has received training to avoid missing someone. Furthermore, designate in writing the person who will be responsible for conducting the training for your company. Determine the type of training required and the format to be used. In summary, the training program should include how to detect the presence or release of hazardous chemicals, physical and health hazards, personal protection/emergency measures, labeling, MSDS, and Hazcom program accessibility.

Conduct Internal Program Audits

The Hazcom Standard was the most frequently cited standard by OSHA during the Fiscal year 1992, accounting for 27,117 violations between both general and construction industries according to information provided by OSHA. Thus, an effective internal program compliance audit should be implemented. An internal audit is critical in order to measure the effectiveness of the program. An inspection should be conducted on a regular basis (i.e. monthly, quarterly, etc.) to make sure that the chemicals are in the area they should be, labels are correct and legible, MSDS are current and readily available to employees, and to ensure that employees fully understand the Hazard Communication Program. It is most imperative that employees, who have the authority to purchase chemicals, make the person responsible for the Hazcom program, aware of any and all "new" chemicals brought onto the mining site. This is especially true where there are ready-mix or asphalt operations on the mine site.

Conclusion

The purpose of the Hazard Communication Standard is protecting the health and safety of those working in the plant. The Hazcom Standard ensures workers the "Right-to-Know" about potential dangers by requiring employers to develop and thoroughly explain the details of the company program. However, for a program to be totally successful, workers need some responsibility as well. Employee responsibilities begin with carefully reading the hazard warnings on the labels, MSDSs, and any other training materials that are a part of the company program.

In the area of safety, there cannot be a "we" versus "them" mentality. Rather, a program such as the Hazard Communication Program requires a partnership effort between company and employee, management and labor, in order to effectively protect against chemical/material hazards.

Appendix

Chapter 9

Haz Com

- Ø Hazard Communication
- Ø Written Haz Com Program
- Ø Introduction to MSHA's Haz Com
- Ø Sample Letter Requesting MSDS – MSHA
Jurisdiction
- Ø Sample Letter Requesting MSDA – MSHA &
OSHA Jurisdiction

Appendix Chapter 9

[Name of Company]
[Mine ID #]

Hazard Awareness & Hazard Communication

The **[Name of Company]** employs the normal method of stripping overburden to produce raw material. This incorporates various types of heavy earth moving equipment. The **[Name of Company]** also incorporates, when needed, explosives to assist in the removing of overburden. When it becomes necessary to use explosives. The **[Name of Company]** will hire a licensed contractor for this procedure. In this type of work there are safety hazards you will come into contact with on a daily basis. You must be able to distinguish the hazard in order to have a safe work environment. Listed below are typical hazards and avoidance's you should be made aware of while in our mining operation.

Hazard Recognition & Avoidance

- 1) Watch for heavy equipment.
 - a) Don't take for granted they see you approaching.
 - b) Stop and get the equipment operator's eye contact before you approach his work area.
 - c) When maintaining or servicing any equipment, follow all safety regulations specified by the equipment manufacture and Mine Safety & Health Administration.
- 2) Watch for falling debris from highwalls.
 - a) Loose rock or unconsolidated material from previous mined areas is a hazard and will become unstable during periods of freezing and thawing cycles.
 - b) Never work on or park a vehicle directly below a highwall or a spoil bank in which a slip has occurred.
 - c) If a machine has become disabled under a highwall, never place yourself between the machine and the highwall.
 - d) When working on top of the highwall make sure you stay away from the edge and keep a berm up that is at least axle height of the largest machine working. Also watch along the edge of the highwall for any developing cracks that would indicate a fault in the material and the potential for the highwall to slip. If you should see this occur notify a foreman immediately and withdraw from the area. Remember thousands of tons of material can slip instantly giving you almost no time to react. Do not place yourself in this position to be caught.
- 3) When explosives are being used, always check with a foreman or superintendent to see if it is safe to enter the area.
 - a) Never enter an area where explosives are being used without permission.
 - b) Always follow all safety rules and regulations while in the mining operation.

- c) Roads will be monitored when the shot is to be detonated. The shooters will signal when they are going to shoot and again when it is all clear.
 - d) When the shot is detonated, watch for flying debris.
 - e) Always maintain a safe distance from the shot area. If you are not sure where you should be, leave the area completely.
 - f) Remember, if you're in an area where explosives are going to be used, make sure they know where you are.
 - g) Also, turn off any radios you have. Transmitting on a radio could cause an unplanned detonation resulting in personal injury and even death.
- 4) Weather can cause hazardous conditions in the mine.
- a) During a lightning storm, always keep yourself free from any chance of being struck by lightning.
 - b) Never work on, stand out on or lean up against any equipment during a lightning storm.
- Heavy equipment can be a good conductor for electricity, especially equipment like draglines and loading shovels because of their high booms.

Emergency & Evacuation Procedures

- 1) In case of an emergency, contact the proper personnel.
- a) Dial 911. Accesses all emergency personnel.
 - b) Notify mine personnel such as superintendent or foreman in charge. If no phone is accessible contact any **[Company Name]** haul or maintenance vehicles to access our mobile radio system. The emergency call can then be made from base.
 - c) Depending upon the emergency, evacuation may or may not be needed. If needed, use the haul road if accessible. If the haul road is blocked, leave your vehicle and use whatever safe route out of the pit area. Example, drainage ditch or over a spoil bank, etc.

Health & Safety Standards

Safety Rules & Safe Work Procedures

- 1) The **[Company Name]** goal is to provide a safe and healthy work environment, although due to the nature of this industry one may encounter situations that could be harmful to a person's health and safety.
- a) Noise exposure. To reduce the exposure to excessive noise, wear earmuffs or earplugs.
- 2) Observe all rules and regulations while in The **[Company Name]** mining operations.
- a) Speed limits are posted on all haul roads and traffic signs are posted at intersections.
 - b) The mining operation follows a normal traffic pattern, which means we drive on the right hand side of the road.
 - c) Wear seat belts at all times.
- 3) Observe safe working procedures while in **[Company Name]** mining operation. The

Mine Safety & Health Administration has written safety rules and regulations which must be followed while on mine property. If you are unfamiliar with these rules let a foreman know immediately.

4) Basic Safety Rules

- a) Never run equipment without wearing your seat belt.
- b) Never leave your machine or vehicle with the ground engaging tools (bucket, blade ripper, etc) in the air.
- c) Never get off your equipment while it is in gear.
- d) Never run equipment, which is unsafe due to defective brakes, safety equipment, backup alarm, etc.
- e) Always do a pre-shift inspection.
- f) Always notify your foreman of any safety problem with your equipment.

This is not meant to be an exclusive list of safety rules and regulations. Safety is everyone's job and the rules are there for everyone's protection. While in The [Company Name] mining operation you will be expected to observe all safety rules and regulations.

Hazard Communication

It is the responsibility of The [Company Name] to obtain and distribute information on hazardous chemicals that contractors may come into contact with while on [Company Name] mine property. If you have any questions concerning any chemical on site please contact a foreman or superintendent before beginning work in that area.

The hazardous chemicals that one may come across while performing a task within [Company Name] mining operations are as follows:

Sodium Hydroxide (caustic):

- **Potential Exposure:** Inhalation, eye/skin contact, and ingestion.
- **Hazards:** Corrosive - Cause severe burns to eyes and skin.
- **Precautions to Take:** Do not get in eyes, on skin, or on clothing. Do not swallow. Avoid breathing dusts or mists from solutions. Do not eat, drink, or smoke in work area. If you must work around a caustic tank wear the appropriate personal protective equipment: chemical safety goggles with eyeshields, nitrile, neoprene, or PVC gloves, NIOSH/MSHA approved dust/mist filter respirator, rubber boots, rubber aprons, and PVC clothing should be worn to prevent skin contact.

Crystalline Silica Dust:

- **Potential Exposure:** Inhalation
- **Hazards:** Inhalation of crystalline silica dust may cause silicosis, a disabling, progressive & sometimes fatal pulmonary fibrosis in the lungs.
- **Precautions to Take:** Trucks - Keep your windows up and doors shut at all times to prevent dust exposure. If you must work outside of your equipment use a NIOSH/MSHA approved respirator.

Diesel Fuel:

- **Potential Exposure:** Eye/skin, inhalation
- **Hazards:** Eye and skin irritant. Respiratory irritant.

• **Precautions to Take:** Wear a NIOSH/MSHA approved respirator, chemical resistant gloves, splash goggles, face shield, chemical resistant apron or impervious clothing. No smoking or open flames.

Oils & Lubricants:

• **Potential Exposure:** Eye/skin

• **Hazards:** Eye and skin irritant. Avoid breathing mists. Wash thoroughly after handling.

• **Precautions to Take:** Close containers when not in use. Keep away from heat, open flame and strong oxidants. Use sufficient eye protection to avoid direct contact. Protective neoprene or plastic gloves may be used.

Solvents:

• **Potential Exposure:** Eye, skin, inhalation.

• **Hazards:** Eye irritant, will show up as redness and/or swelling. Skin irritant, may cause irritation or dryness. Inhalation or spray mist may cause irritation to the respiratory tract.

• **Precautions to Take:** Do not swallow. Wear synthetic gloves if necessary to prevent excessive skin contact. NIOSH approved respirator as necessary. Safety goggles if necessary to prevent contact. No smoking or open flames.

This is not an exclusive list of hazardous materials that may be found within the mining operation, but rather a list of materials with the highest possibility that one may come into contact with that may cause a physical or health hazard. All tanks, drums and containers are clearly labeled as to their contents and this may be used as a cross-reference to help locate the appropriate Material Safety Data Sheet for that chemical.

For further information regarding hazardous chemicals you must consult the Material Safety Data Sheets for that chemical. The MSDS books are located [**Location Name & Address**]. If you request a copy of an MSDS for a particular chemical The [**Company Name**] will supply the first copy free of charge. All copies following will be at a minimal fee.

I have read the Hazard Awareness & Hazard Communication document from The [Company Name] and will abide by all rules and regulations from the Mine Safety & Health Administration.

Name

Date

Company

Appendix Chapter 9
WRITTEN HAZARD COMMUNICATION PROGRAM

(Company Name) (ID #)

1. Introduction

There are approximately 650,000 chemical products in the workplace today and hundreds of new ones are introduced every year. Some 25 million workers, or nearly a quarter of the workplace, are exposed to one or more chemicals on the job everyday. Working with these chemicals and mixtures of these chemicals creates a great potential for disaster unless employees are properly trained to handle these hazardous materials safely.

All work units of a company shall participate in the hazard communication program. This written program will be available in the front of the Material Safety Data Sheet binder for review by any and all interested employees.

2. Background

This written Hazardous Communication Program not only meets all requirements, but also ensures that all employees are effectively informed concerning potential and existing chemical hazards. Hazard communication is one important aspect of this written program; however, the following should also be considered:

- Management commitment and active support,
- Engineering controls of safety and health hazards,
- Enforcement of safety rules and programs,
- Recognition, evaluation and control of occupational safety and health hazards;
- Medical Surveillance, and
- Assigned safety and health responsibility and accountability.

3. Purpose of a Hazard Communication Standard Under 47.1

The purpose of this Hazard Communication Program is to reduce injuries and illnesses by ensuring each operator and employee is knowledgeable and capable of:

Identifying the chemicals in the work area,
Determining which chemicals are hazardous,
Informing all who can be exposed about chemical hazards and appropriate protective measures.

4. Identifying Hazardous Chemicals

(Company Name) must evaluate each chemical brought onto mine property and each chemical product on mine property to determine any are hazardous. The following table will assist each person in determining if a chemical is hazardous.

Category	Basis for Determining If A Chemical is Hazardous
(a) Chemical brought to the mine	The chemical is hazardous when its MSDS or container label indicates it is a physical or health hazard; or the operator may choose to evaluate the chemical using the criteria in paragraphs (b) and (c) of this table.
(b) Chemical produced at the mine	The chemical is hazardous if any one of the following that is a hazard: (1) Available evidence concerning its physical or health hazards; (2) MSHA standards in 30 CFR Chapter 1: (3) Occupational Safety and Health Administration (OSHA), 29 CFR part 1910, subpart Z, Toxic and Hazardous Substances; (4) American Conference of Governmental Industrial Hygienists (ACGIH), Threshold Limit Values and Biological Exposure Indices (2001). (5) U.S. Department of Health and Human Services, National Toxicology Program (NTP), Ninth Annual Report on Carcinogens, January 2001; and (6) International Agency for Research on Cancer (IARC), Monographs and related supplements. Volumes 1 thru 77.
(c) Mixture produced at the mine	(1) If a mixture has been tested as a whole to determine its hazards, use the results of that testing. (2) If a mixture has not been tested as a whole to determine its hazards; CO Use available, scientifically valid evidence to determine its physical hazard potential; (ii) Assume that it presents the same health hazard as a non-carcinogenic component that makes up 1 or more (by weight or volume) of the mixture; and (iii) Assume that it presents a carcinogenic health hazard if a component considered carcinogenic by NTP or IARC makes up 0.1 or more (by weight or volume) of the mixture. (3) If evidence indicates that a component could be released from a mixture in a concentration that could present a health risk to miners, assume that the mixture presents the same hazard.

5. Methods of Approach

The methods used to inform employees are as follows:

Container labeling and other forms of warning,
Material Safety Data Sheets (MSDS), and
Employee education and training.

6. Hazard Communication Training Contents

It is the responsibility of **(Company Name)**, to provide training and education regarding the Hazard Communication program. It will ensure that all elements specified below are carried out prior to starting work. Additionally, each new employee must attend a health and safety orientation that includes the following training:

- a.) The physical and health hazards of chemicals in the work area,
- b.) The employee Hazard Communication program, including an explanation of the labeling system and MSDSs, and how each individual can obtain and use this hazard information,
- c.) The location and availability of the written Hazard Communication program, the list of hazardous chemicals, labeling information, and MSDSs,
- d.) The operations or locations where hazardous chemicals are present in the work area, such as unlabeled pipes, stockpiles, conveyors, rod or ball mills, containers of raw materials, and non-routine tasks, such as cleaning of a storage tank that had a hazardous chemical,
- e.) The methods and observation that can be used to detect the presence or release of a hazardous chemical in the work area;
- f.) The measures that can be taken to protect oneself from hazards, and,
- g.) The specific procedures in place at the facility to protect all persons from hazardous chemical exposure, such as work practices, engineering controls, emergency procedures, and use of personal protective equipment.

After attending the training classes, each employee must sign a form to verify that he/she attended the training and understood all materials and company policies and procedures that personally affects them.

Also, prior to a new hazardous chemical being introduced into any section of the office, each employee who may use or come into contact with the particular chemical must be trained concerning the new chemical.

In addition to the above information, **(Company Name)** shall make a record of each employee's Hazard Communication training, and keep the record for a period of two years.

7. Hazardous Non-Routine Tasks

Periodically, employees are required to perform hazardous non-routine tasks. An example of a non-routine task is confined space entry.

Prior to starting work on such projects, each affected employee will be provided with information about the hazardous chemicals he or she may encounter during the activity. This information will include specific chemical hazards, protective and safety measures the employee can use, and steps the company is using to reduce the hazards, including ventilation, respirators, the presence of another employee, and emergency procedures.

Examples of non-routine tasks performed by mining employees:

Task	Hazard Chemical
Purging Fine Bins	Crystalline Silica Dust
Welding within Crusher Hopper	Crystalline Silica Dust Various Welding Fumes

8. Requirement for a Hazard Communication Program Under 30 CFR 47.31

The requirements of our Hazard Communication program are to:

- a.) Maintain the program for as long as any hazardous chemical is known to be at the facility, and
- b.) Share relevant Hazard Communication information with other operators whose employees can be affected.

9. Hazard Communication Program Contents

Our Hazard Communication program includes the following:

- a.) Hazard determination,
- b.) Labels and other forms of warning,
- c.) Material safety data sheets (MSDSs), and
- d.) Employee's training.

A list or other record of the identity of all hazardous chemicals known to be at the facility. The list shall include the following:

- a.) A chemical identity that permits cross referencing between the list, a chemical's label, and its MSDS, and
- b.) A compilation for the whole company and individual work areas.

Contractors performing services at our facility shall be informed of hazardous materials by:

- a.) A list of chemicals to which employees can be exposed, and the
- b.) Appropriate protective measures.

10. MSDS for Hazardous Waste Under 30 CFR 47.43

If a MSDS is not available for hazardous waste and **(Company Name)**, is unable to obtain or develop one, then **(Company Name)** shall provide each potentially exposed employee with the information, to the extent that is available, for the hazardous waste.

If the employee produces or uses hazardous waste, **(Company Name)** shall provide each exposed employee and designated representative with access to the Hazard Communication material which provides a description of its physical and health hazards and specifies appropriate protective measures.

11. Determining Hazardous Chemicals

(Company Name) and its employees are responsible for identifying chemical hazards from safety data sheets (MSDS) provided by chemical manufacturers and distributors. **(Company Name)** must evaluate each chemical brought onto mine property and each chemical produced on mine property to determine if it is hazardous. The table provided in subsection 4 of this Hazard Communication Program will assist you in identifying hazardous chemicals.

12. Requirements for a MSDS

(Company Name) will maintain a MSDS for each hazardous chemical which it produces or uses. The MSDS may be on paper or electronic, but cannot restrict availability. The following must be followed to meet the MSDS requirements:

- a.) For each hazardous chemical produced **(Company Name)** will prepare a MSDS, and update it with significant, new information about the chemical's hazards and protective measures within three months of becoming aware of this information.
- b.) For each hazardous chemical brought to the facility, **(Company Name)** must rely on either the MSDS received from the chemical manufacturer or supplier, develop its own MSDS, or obtain one from another source.
- c.) Although **(Company Name)** is not responsible for an inaccurate MSDS obtained from the chemical's manufacturer, supplier or other source, **(Company Name)** will:
 - 1. Replace an outdated MSDS upon receipt of an updated revision, and
 - 2. Obtain an accurate MSDS as soon as possible after becoming aware of an inaccuracy.

(Company Name) is not required to prepare a MSDS for an intermediate chemical or by-product resulting from mining or milling if its hazards are already addressed on the MSDS of the source chemical.

13. Material Safety Data Sheets

MSDSs are in English and contain the following information:

- The identity of the chemical,
- The physical and chemical characteristics of the chemical,
- The physical and health hazards of the chemical,
- Primary routes of entry,
- Exposure limits,
- Precautions for safe handling,
- Controls to limit exposure,
- Emergency and first aid procedures, and
- The name of the manufacturer or the distributor.

14. MSDS Availability Pursuant to Rules 47.71; 47.72 and 47.73

(**Company Name**) is responsible for establishing and monitoring the company MSDS program. The program will make sure procedures are developed to obtain the necessary MSDSs and will review incoming MSDSs for new or significant health and safety information. It will see that any new information is passed on to affected employees. The following procedures will be followed when a MSDS is not received at the time of initial shipment: A MSDS will be requested in writing from the manufacturer and employees will be verbally informed of any health or safety hazards.

When retaining any and all MSDSs, (**Company Name**) shall follow the procedure below:

1. (**Company Name**) will retain its MSDS for as long as the hazardous chemical is known to be at the facility, and
2. Notify employees at least three months before disposing of the MSDS.

(**Company Name**) shall provide the first copy and each revision of the Hazard Communication material without cost. Fees for a subsequent copy of the Hazard Communication material must be non-discriminatory and reasonable.

15. Labeling and Other Forms of Warning

(**Company Name**) will verify that all containers received for use will be clearly labeled as to contents and note the appropriate hazard warning.

(**Company Name**) will ensure that all secondary containers are labeled with either an extra copy of the original manufacturer's label or with labels that have the identity and the appropriate hazard warning.

The definition of "containers" is broadly defined, but does not include ponds, ditches, pipes or piping systems, conveyors, engines, fuel tanks or other operating systems, or parts of a vehicle.

(**Company Name**) should be using an in-house labeling system along with any manufacturer labels and information adhering to the following degrees:

- 0 = Minimal Hazard
- 1 = Slight hazard to health or safety
- 2 = Medium hazard to health or safety
- 3 = Severe hazard to health or safety
- 4 = Maximum hazard, life threatening

In addition to the above-mentioned, (**Company Name**) shall ensure the label is:

- a.) Prominently displayed, legible, accurate, and in English.
- b.) Displaying appropriate hazard warnings.
- c.) Capable of providing a chemical identity that permits cross referencing between the list of hazardous materials, a chemical's label, and its MSDS, and
- d.) Listing the name and address of the company or responsible party who can provide additional information about the hazardous chemical.

16. Hazardous Chemicals Exempt from Labeling

A hazardous chemical is exempt if it is one of the following:

- Chemical substance, consumer product, hazardous substance or pesticide,
- Hazardous Substance,
- Hazardous Waste,
- Raw material being mined or processed, or
- Wood or wood products, including lumber.

17. Contractor

Other contractors will be provided with information and suggested precautions about hazardous chemicals that their employees may be exposed to on a job site. It is the responsibility of (**Company Name**) to obtain information about hazardous chemicals used by other contractors to which (**Company Name**) employees may be exposed. Copies of the MSDSs for all materials the contractor's employees maybe exposed to will be provided to the contractor upon request.

Appendix Chapter 9

Introduction to MSHA's HazCom

The Mine Safety & Health Administration's (MSHA) Hazard Communication (HazCom) Final Rule was published on June 21, 2002. This standard is viewed as an information and training standard, and sometimes referred to as, "Workplace Right to Know". The standard was established to reduce injuries and illnesses related to chemicals in the mining industry. The mining industry reported over 3,000 chemical burns and poisonings to MSHA between 1990 and 1999.

HazCom is based on two safety and health principles: (1) miners have a right to know about the chemicals hazards where they work; and (2) mine operators have a responsibility to know about chemical hazards at the mine. The HazCom standard does not restrict chemical use, require controls, or set exposure limits.

The effective date of this standard varies depending upon the size of the mining operation:

- ü September 23, 2002, for mines employing six or more miners; or
- ü March 21, 2003, for mines employing five or fewer miners.

HazCom is published in Title 30 of the Code of Federal Regulations (30 CFR) as Part 47. HazCom is divided into 10 subparts. These are:

- Subpart A - Purpose, Scope and Initial Training
- Subpart B - Definitions
- Subpart C - Hazard Determination
- Subpart D - HazCom Program
- Subpart E - Labels
- Subpart F - Material Safety Data Sheets
- Subpart G - Reserved
- Subpart H - Access to HazCom Information
- Subpart I - Trade Secrets
- Subpart J - Exemptions

Who is covered?

HazCom applies to "any operator producing or using a hazardous chemical to which a miner can be exposed under normal conditions of use or in a foreseeable emergency." This includes all miners, office workers and independent contractors, who may be exposed to a hazardous chemical during the regular course of their work.

Operators who now comply with OSHA's HazCom will be in compliance with MSHA's HazCom.

What do operators have to do to be in compliance?

- Inventory the chemicals at the mine and determine which are hazardous.
- Keep a list of the hazardous chemicals.

- Establish a written HazCom program.
- Prepare a label and Material Safety Data Sheet (MSDS) for the mine product.
- Make sure that containers of hazardous chemicals are labeled.
- Keep MSDSs for the hazardous chemicals at the mine.
- Train the miners about the HazCom program and the hazardous chemicals to which they can be exposed.
- Allow the miners to view the HazCom information and if a copy is requested make it available to them.

Subpart A

Part 47.2 - Training

Remember, the HazCom rule was written to be an information and training standard, thus ensuring that the miners' understand the physical and health hazards of chemicals in their work area, and the protective measures they must take to protect themselves against these hazards. The mine operator is responsible for the development of the program and ensuring the proper training is completed. If the miners have already been trained about the chemical hazards at the mine to comply with Part 46, 48, or OSHA's HCS, the operator can apply the training to meet HazCom's requirements to the extent it's relevant. Re-training should not have to be done, although records must be kept of all subsequent hazardous chemical training in accordance with the requirements of Part 46 and Part 48.

Under Parts 46 and 48, the operator should already be teaching miners about chemical hazards in their work areas including:

- How chemical hazards are recognized
- How to tell if there's been a release
- How the chemicals can be harmful
- How the miners can protect themselves
- Warning labels
- Health sampling
- Any health control plan at the mine.

In addition to the existing requirements, under HazCom the operator must also train miners about:

- The HazCom standard;
- The information on MSDSs
- Their right to access HazCom information
- Where they can find the chemical list, the MSDSs, and the written program.

The rule requires that miners be trained:

- Before a new miner begins work
- As part of instruction given to newly hired experienced miners
- As part of task training
- Whenever a new hazardous chemical is brought into their work area
- Whenever the operator learns of new significant information about a chemical's hazards.

Under Part 46, you are not required to conduct refresher HazCom training annually. MSHA modified annual refresher requirements to include HazCom only as a recommended subject, although if any changes occur in the use, location or potency of hazardous chemicals, it is mandatory to be a part of annual refresher training.

Since refresher training under Part 48 requires instruction on mandatory health and safety standards, HazCom is a mandatory training requirement there.

The typical operator should not have to revise the mine's training plan to conduct HazCom training. The training aspects of HazCom were developed to be fully compatible with existing standards. If an operator trains the miners to recognize a chemical hazard, this is Hazard Recognition training. Also, if miners are trained about the HazCom standard, this is Mandatory Health and Safety Standards training. Keep in mind, relevant training provided to miners under other MSHA standards, OSHA, EPA, DOT, etc., may be credited toward HazCom training. However, it is not automatically interchangeable with Parts 46 and 48. The training and the approved training plan may have to be modified to add this chemical focus. The operator must consider the hazardous chemicals at the mine, the conditions under which they are used, and what the approved plan says.

To make the appropriate changes to the already existing plan, MSHA has created a model training plan addendum the operator may use. Simply attach the addendum to the already existing training plan. Remember, when any significant changes to the plan are made this information must be provided to the miners' representative, or, in the absence of such a person, either be posted or individually provided to each miner.

* See Appendix 1 for Addendums.

* See Appendix 2 for an order form to access HazCom training materials from MSHA.

Training Records

For the purpose of HazCom training only, the operator may use any type of form, list, or record that tells who was trained, when the training occurred and what was covered. Part 46 also requires documentation of training, but allows two options, Form 5000-23 or an alternate with the information provided in 46.9(b). Although if HazCom training is integrated into Part 48, the operator must use the proper training certificate, MSHA Form 5000-23, or an approved equivalent, as a record of training.

The mine operator must keep a copy of the training documentation for two years, which is the same requirement as in Parts 46 and 48.

- See Appendix 3 for MSHA Form 5000-23, Certificate of Training, and instructions on how to fill it out properly.

Site Specific Hazard Training / Contractor Training

For service providers who work on the mine only briefly or infrequently, the operator must give them site-specific hazard awareness training concerning the hazardous chemicals to which they may be exposed.

Independent contractors who are operators, including those who provide service and repair work, must be informed about the chemical hazards the miners may be exposed to at the mine. Contractors have the same responsibility as production operators to train their employees.

* See Appendix 4 for an example Hazard Awareness & Hazard Communication training document for contractors and service providers.

Subpart B

Part 47.11 - Definitions

* See Appendix 5 for a complete list of definitions for purpose of HazCom.

Subpart C

Part 47.21 - Hazard Determination

Hazard determination is the mines chemical inventory. See Subpart E for the specifics of the HazCom inventory requirements.

Operators must evaluate each chemical brought to the mine, each chemical produced at the mine, and mixtures produced at the mine to determine if they are hazardous.

Identifying Hazardous Chemicals

CATEGORY	BASIS FOR DETERMINING IF A CHEMICAL IS HAZARDOUS
(a) Chemical is brought to the mine	The chemical is hazardous when its MSDS or container label indicates it is a physical or health hazard; or the operator may choose to evaluate the chemical using the criteria in paragraph (b) and (c) of this table.
(b) Chemical produced at the mine	The chemical is hazardous if any one of the following indicates the at it is a hazard: (1) Available evidence concerning its physical or health hazards. (2) MSHA standards in 30 CFR chapter I. (3) Occupational Safety and Health Administration (OSHA), 29 CFR part 1910, subpart Z, Toxic and Hazardous Substances. (4) American Conference of Governmental Industrial Hygienists (ACGIH), Threshold Limit Values and Biological Exposure Indices (2001). (5) U.S. Department of Health and Human Services, National Toxicology Program (NTP), Ninth Annual Report on Carcinogens, January 2001. (6) International Agency for Research on Cancer (IARC), Monographs and related supplements, Volumes 1 through 77.
(c) Mixture produced at the mine	(1) If a mixture has been tested as a whole to determine its hazards, use the results of the testing. (2) If a mixture has not been tested as a whole to determine its hazards- (i) Use available, scientifically valid evidence to determine its physical hazard potential; (ii) Assume that it presents the same health hazard as a non-carcinogenic component that makes up 1% or more (by weight or volume) of the mixture; and (iii) Assume that it presents a carcinogenic health hazard if a component considered carcinogenic by NTP or IARC makes up 0.1% or more (by weight or volume) of the mixture. (3) If evidence indicates that a component could be released from a mixture in a

- (iv) concentration that could present a health risk to miners, assume that the mixture presents the same hazard.

Remember, the above information is a guideline to follow to determine whether a chemical is hazardous or not. According to MSHA, HazCom is meant to address hazards from any chemical that can, under the right circumstances, cause a person harm, not just those with MSHA or other exposure limits. If a potential exists for a miner to be harmed by a chemical (and it is not exempt), you must include the chemical in the HazCom program.

PHYSICAL HAZARD - can cause injuries	HEALTH HAZARD - can cause illnesses
Explosive • Compressed Gas • Combustible Liquid Unstable • Pyrophoric • Oxidizer Organic Peroxide • Flammable • Water-Reactive •	Reproductive Effects or Birth • Carcinogens • Liver or Kidney Damage • Sensitizer • Irritate or Corrode Tissue • Defects Stomach or Intestinal • Blood or Lymphatic Damage Nervous System Damage • Lung, Skin, Eye Damage • Damage

“Chemical” is defined broadly to include any element, chemical compound or mixture, and ranges from welding rods to solvent. If one of the chemical’s basic characteristics is hazardous, the chemical is hazardous. A basic characteristic is one that’s inseparable from the chemical’s nature. For example, flammability is inseparable from gasoline.

Subpart D

Part 47.31 through 47.32 - HazCom Written Program

All mines must prepare a written program that explains how HazCom is implemented at that mine site.

The HazCom Program must cover the following topics:

- A list of hazardous chemicals at the mine
- How the operator will tell miners about unlabeled chemicals (in pipes, for example) and the hazards of jobs that are not routine
- What labeling system the mine uses, that is, how the operator will label containers
- Where the miners may locate an MSDS for each hazardous chemical that they work with
- What training the mine will provide to the miners
- How the mine will inform other on-site operators about the chemical hazards and the protective measures their employees may need while working within the operation.

The written program must have enough information that others, such as miners, a miner’s representative, and an MSHA inspector can read it and understand how the operator is applying HazCom at the mine. The program may be in any format, as long as it includes all the required information.

What is written within the program must be what is carried out within the mine. A citation will follow if the program is deviated from in any way. To avoid this problem place multiple options within the program. For example: The operator can state in the HazCom program that he will inform miners about new chemical hazards in their work area by:

- Posting a notice on the mine's bulletin board
- Having the supervisor verbally inform the miners at the work area
- Special training sessions
- Individual written notices.

At mines with more than one operator, the written HazCom program must also include methods for:

- Providing other operators with access to MSDSs
- Informing other operators about:
- Hazardous chemicals to which their employees can be exposed
- The labeling system on the containers of these chemicals
- Appropriate protective measures.

* See Appendix 6 for a sample HazCom Program.

Subpart E

Part 47.41 through 47.44 - Labels and Other Forms of Warning

A label is an immediate warning about a chemical's most serious hazards. A label gives a chemical's name, or identity, as it appears on the MSDS and on the mines list of hazardous chemicals. It displays information about a chemical, such as its flammability, reactivity, personal protective equipment, and special precautions to be taken when working around the chemical.

Mine operators must ensure that containers of hazardous chemicals are marked, tagged or labeled in English with the identity of the hazardous chemical and appropriate hazard warnings. The label must include enough information about the chemical's identity to permit cross-referencing between the label, the mine operator's list, and the product or substance's MSDS. The mine operator can rely upon existing container labels (manufacturer labels) and will not be held responsible for inaccurate information. All labels must be kept in readable condition. If the label has been removed or defaced it must be replaced.

“Containers” are broadly defined, but do not include ponds, ditches, conveyors, or engines, fuel tanks or other operating systems or parts of a vehicle. (The truck itself does not have to be labeled, although the containers that hold the lubricants or fuel must be labeled.)

“Large Containers” are defined as bins, hoppers, stationary process containers, and tanks. These containers, after being determined to hold a hazardous substance (see Subpart C- Hazard Determination), can be labeled by the use of a sign, placard, process sheet, batch ticket or “operating procedures” to warn the miners of the hazards associated with the chemicals.

“Temporary portable containers” are not defined, but refer to generally small containers used on a temporary basis by a miner to aid in the completion of a specific task and by the end of the shift the container is rendered ‘empty’. If the material is not used up by the end of the shift the miner must label the container, using the common name is sufficient as long as it can be cross-referenced to the list or MSDS, or return the substance to its original container.

A warning of carcinogenicity is required only when the substance is known to cause, probably causes or is reasonably likely to pose a risk of human cancer; lesser carcinogenic classifications such as “suspected carcinogen” do not require the cancer warning.

Since both IARC and NTP have identified crystalline silica as causing cancer, MSHA expects products that contain more than 0.1% respirable crystalline silica to carry a cancer warning. Basically, all mining commodities are chemicals. In metal and nonmetal mining, many mine products, though not all, are hazardous. A component of the material is what the operator needs to consider, such as respirable crystalline silica, which can make a commodity harmful. If a mine product is deemed hazardous, it must be included in the HazCom program. Therefore, the operator must ensure that the miners are properly trained about the hazards of silica, the protective measures, and the controls in place. Re-training is not required if this information has already been given to the miners. An MSDS must be prepared for silica or the product that contains the silica, and this must be included in the HazCom program.

A miner must not use a chemical from an unlabeled container at any time, unless it is a temporary, portable container and the operator is sure the miner knows what is in it.

The raw material one mines or processes is exempt from HazCom labeling while the raw material is on mine property. Examples are a feed hopper at the primary crusher or a wash tank for the sand plant. However, if anti-freeze or another hazardous chemical is added to the raw material, it would have to be labeled.

Mine products that go off mine property are not required to be labeled, although if the customer requests this information it must be provided. Attaching label information on the back of weigh tickets would be considered an appropriate form of labeling.

Information required on labels for chemicals produced at the mine

Labels may be in any format as long as they are obvious, legible, accurate, in English, and convey the appropriate hazard information.

A label must include:

1. The chemical's identity that permits cross-referencing between the label, the list of hazardous chemicals, and the MSDS.
2. The appropriate hazard warnings for all serious hazards (health and physical), such as “suspected human carcinogen”, “skin irritant”, or “flammable”. (When conveying a hazard warning it must be specific. “Danger,” considered a general warning, would be insufficient. “Flammable” and “combustible” are acceptable.
 - The mine operator shall prioritize the hazards on the label based on their severity. For example, if the chemical is classified as a carcinogen, the carcinogen warning should be prominent on the label.

- If applicable, target organs affected shall also be included, giving preference to the most serious effects in cases where the chemical is known to have a multitude of health effects. For example, “causes lung damage” or “corrosive to eyes”.
3. The label must also include the name and address of the operator/company who can provide more information on the chemical. The safety and health professional's name is not to go on the label.
 4. All labels must be updated within 3 months after the operator has become aware of significant new information concerning that particular chemical. Although the operator will have 3 months to update the label, the operator **MUST** inform potentially affected miners right away.

* For the purpose of HazCom, “significant” new information is any that would reasonably influence how a miner uses a chemical, the precautions the miner should take, or the personal protective equipment selected.

Labeling Alternatives

HazCom does not require a specific labeling system. The NFPA diamond, DOT placards, HMIS, or other systems are acceptable labeling systems. Also, the use of signs, placards, or other alternatives for a stationary tank may be used. Just remember these alternatives may be used as long as they convey the appropriate hazard warning and communicate the specific physical and health hazards, and the miners are properly trained on the meaning of the labeling system. An MSDS can be used in place of a label although it is not advised. The information on the MSDS is not as obvious as that on a label.

* Some labeling systems, such as DOT placards, may not convey all of the information that is required by the HazCom rule, i.e. protective equipment; other labels may need to be placed in conjunction with them to complete the labeling requirements.

See Appendix 7 for examples of various labeling systems.

Inventory

The chemical inventory identifies the hazardous chemicals present at the mine. Its purpose is to serve as a quick reference so that everyone, including MSHA inspectors, can see at a glance what hazardous chemicals are present at the mine.

The rule requires that the mine operator compile a list of hazardous chemicals and maintain it for as long as a hazardous chemical is known to be at the mine. The operator is only responsible for the chemicals that are produced or brought to the work areas. The list must also use a chemical identity

that will permit cross-referencing between the list, a chemical's label, and its MSDS. The last requirement is that the list be kept up to date. No time limit is specified for updating the list, although if new hazardous chemicals are brought to the mine, the operator must include them on the list before using them.

MSHA allows the mine to keep a single list for the entire mine site, or individual lists for specific areas of the mine. While compiling the inventory list it is probably a good idea to collect additional information while doing the inventory, such as quantities of each material you have and the type of container they are in, and where they are located.

Keep in mind that while doing the inventory, hazardous chemicals may be discovered that are no longer used. Remember, these hazardous substances become hazardous waste when the decision to remove them from the site is made. Hazardous waste transportation and disposal falls under the EPA.

* See Appendix 8 for a sample Chemical Inventory sheet and a list of common chemicals.

Subpart F

Part 47.51 through 47.55 - Material Safety Data Sheets (MSDS)

An MSDS is a detailed fact sheet about hazardous chemical. Under the HazCom rule, they are the principal source of information about a hazardous chemical. The chemical's MSDS provides comprehensive technical and emergency information. It serves as a reference document for exposed miners, operators, health professionals, and firefighters or other public safety workers in the event of an emergency.

HazCom is an information and training standard. Miners are not permitted to work with a hazardous chemical until they are given instruction on its hazards, how miners can recognize the hazard and how they can protect themselves from harm. This information can all be found on the MSDS for the hazardous chemical. There are no exceptions to this requirement, although there may be a time when the miner may have to use a new chemical that poses a hazard before the MSDS becomes available. MSHA will allow this, although expects the MSDS to be available within a week of when the new chemical was initially put to use. Remember, it is the operator's responsibility to train the miners of the hazards, although it's the miner's responsibility to use the information to protect himself/herself.

The mine operator is responsible for:

- Having a MSDS available for each hazardous chemical the mine produces or uses. This availability can be by means of a fax-on-demand service, computer database, or paper hard copies. The miners must have “ready access” to this information. The definition of ready access means that the operator cannot have obstacles that delay access to HazCom information. The miner must be able to get the needed information immediately, MSDSs cannot be kept in an office where the door may be locked, therefore denying access. Remember, if a computer database is used, the miners must be trained on how to access the information from the system.
- Having an up to date MSDS or equivalent for every chemical on the inventory. This must be done within three months after an operator has become aware of significant new information. When the operator replaces an old MSDS on a product with a revised version, he may discard the older copy without telling the miners he is doing so.
- If the mine operator decides to discontinue the use of a hazardous chemical altogether, they are required to alert miners three months before the MSDS is removed.
- Preparing a MSDS for each hazardous chemical produced at the mine. MSHA allows the use of MSDSs, International Chemical Safety Cards and Workplace Hazardous Material Information Sheets. The agency will allow the use of “any document available to miners that contains all the information required” by the regulation, and is legible, accurate, and in English.

That required information is as follows:

Identity	The chemical and common names of the hazardous chemical if it is a single substance and the hazardous ingredients if it is a mixture. As previously mentioned, the identity must permit cross-referencing with the inventory and label.
Properties	The physical and chemical properties of the substance such as vapor pressure and solubility in water.
Physical hazards	The physical hazards of the chemical including the potential for fire, explosion, and reactivity.
Health hazards	The health hazards of the chemical including, signs and symptoms of exposure, any medical conditions which are generally recognized as being aggravated by exposure to the chemical, and the primary routes of entry of the chemical, such as lungs, stomach, or skin.
Cancer classification	Whether the chemical or an ingredient of the mixture is a carcinogen or potential carcinogen. OSHA cites the following three sources that list known or suspected carcinogens: <ul style="list-style-type: none"> o National Toxicology Program (NTP) Annual Report on Carcinogens o International Agency for Research on Cancer (IARC) Monographs o OSHA list of cancer suspect agents
Exposure limits	The operator may use the OSHA exposure limit, the MSHA exposure limit or both. Based on the judgment of the person preparing the MSDS, HazCom requires that the MSDS include any other exposure limit used or recommended by the preparer, such as the ACGIH Threshold Limit Value or the limit recommended by NIOSH.
Safe use	Any generally applicable precautions for safe handling and use, such as appropriate personal hygiene measures, protective measures during repair and maintenance, procedures for cleanup of spills and leaks, and special disposal requirements.
Control measures	Some examples are, proper ventilation, process controls, restricted access, protective clothing, respirators, goggles.
Emergency information	Special instructions for firefighters, first-aid procedures, and the name, address and telephone number of the responsible party who can provide additional information.
Date prepared	The date of preparation of the MSDS or the date of the last revision.

* Note: MSHA will not permit a blank space to appear on the MSDS for any required information. If the required field has no information available, for example exposure limit, then the words “not applicable” must be placed within those areas.

As with labels, MSHA does not require a specific format for the presentation of this information, although recommends the use of OSHA 174 form or ANSI Z400-1.

MSHA allows the use of a single MSDS for a class of chemicals or for the mixtures with similar hazards and contents, as opposed to obtaining an MSDS for each one chemical in that class.

For example, paints, solvents, fuels and lubricants might fall into this category. A single MSDS can also cover a process, as long as all the chemical hazards created during the process and any likely to be created if there is an accident or malfunction are included.

If the mine produces or uses a hazardous waste, potentially exposed miners and their representatives must have access to available information about the hazardous waste. This would include its hazardous components, physical and health hazards, and appropriate protective measures. If this information is not available the manifest for the waste may contain the required information.

MSDSs are to be retained on site for as long as the chemical is at the mine. Remember to notify the miners at least 3 months before disposing of an MSDS for a chemical that is no longer used. This notification to the miners is required to allow them enough time to retain a copy of the MSDS if they so desire. The mine operator cannot charge for the first copy of HazCom information or updates, although if additional copies are requested a reasonable fee can be charged. The operator must ensure that the fee is the same for everybody who request copies.

* See Appendix 9 for an MSDS on clay/shale and a blank MSDS form.

** See Appendix 10 for Sample Letters Requesting an MSDS.

Subpart G-Reserved

Subpart H

Part 47.71 through 47.73 - Access to HazCom Information

When miners are given access to written HazCom materials, it is an important step toward eliminating the mystery of chemicals, clarifying information, and defusing worker concerns about these chemicals. They can no longer grow suspicious of what they are being told, and with this information hopefully they will be more likely to follow safe and healthful work procedures.

The miners and their designated representatives have complete access to written HazCom materials when they request them. These materials consist of the written program, the chemical inventory, labeling information, MSDSs, and training records. MSHA inspectors and NIOSH representatives are also entitled to this information.

Persons who request HazCom information do not need to put their request into writing. The operator is expected to comply within 24 hours of receiving the request. First copies are free and the cost of additional must be reasonable. Remember, the cost for copying

must be the same for everyone who requests copies, and no one may refuse to provide copies.

As mentioned under Subpart D, Labels and other forms of warning, the operator must provide customers, upon request, with the label of any hazardous chemical produced at the mine or a copy of the label information, along with the chemical's MSDS.

Subpart I

Part 47.81 through 47.87 - Trade Secrets

Since the trade secrets provision of Hazcom is inapplicable to aggregate producers, this section will not summarize the details of it.

Subpart J

Part 47.91 through 47.92 - Exemptions

HazCom has two common exemptions from its rule: Chemicals exempt from HazCom, and chemicals exempt from labeling.

The following are exemptions from all requirements:

1. Consumer Product: If the operator buys an ordinary consumer product, it's exempt from HazCom if:
 - it's used as the manufacturer intended, and
 - it does not expose the miner more often or for longer duration than ordinary consumer use.

Example 1: The operator purchases a case of all-purpose cleaner that contains ammonia for truck drivers to use on their trucks while performing routine vehicle maintenance.

No, this product would not be included in MSHA's HazCom program because it is being used as a normal consumer would use it.

Example 2: The operator purchases a case of the same all-purpose cleaner for the janitorial staff to use while cleaning bathrooms, offices, and other parts of the facility and the product is being used all day long by the employee.

Yes, this product will now be included within the HazCom program because now the employee, who is using it as a normal consumer would, is exposed to greater amounts of ammonia. Thus a hazard exists.

2. Article: Manufactured goods, such as plastic pipes, piping systems, conveyor belts, and repair steel, are at every mine. For the purpose of HazCom, such goods are articles. Even if they contain a hazardous chemical, articles are exempt if they:
 - release no more than insignificant amounts of a hazardous chemical, and

- Ü pose no physical or health risk to exposed miners.
3. Biological Hazards: Mold, poison ivy, insects, and micro-organisms.
 4. Personal Items: The operator does not need to include food, tobacco products, drugs, cosmetics, or other such personal items in either the hazard determination or the HazCom program. They are exempt if they are packaged and labeled for retail sale and intended for an individual miner's personal consumption or use.
 5. Radiation: All ionizing or non-ionizing radiation, such as alpha or gamma, microwaves, or x-rays.
 6. Wood/Wood Products: If they do not release or otherwise result in exposure to a hazardous chemical under normal conditions of use. *Treated lumber and wood dust ARE NOT EXEMPT.*

The following are exemptions from labeling requirements:

- Hazardous chemicals already labeled per EPA, Consumer Product Safety Act, Federal Hazardous Substances Act, Federal Insecticide, Fungicide, or Rodenticide Act, or Federal Seed Act
- Hazardous waste being handled per EPA regulations at a Superfund site
- Raw material being mined/processed (unless otherwise mixed with hazardous chemical)
- Wood and wood products are always exempt from labeling

SAMPLE LETTER REQUESTING A MSDS

MSHA JURISDICTION

[Date]

[Chemical Company Name]
[Chemical Company Address]

Re: MSDS for [Product]

Dear [Name or Position]:

The Mine Safety and Health Administration (30 CFR 47) requires that chemical suppliers provide Material Safety Data Sheets (MSDS) to employers that purchase the products. employers must in turn make these MSDSs available to employees potentially exposed to these hazardous substances.

The following list contains the chemicals purchased from your company that did not have a MSDS provided.

[List of Chemicals]

Please send a copy of the MSDS for these chemicals in a timely manner.
Your cooperation is greatly appreciated. Please forward the requested information to:

[Employer]
[Employer's Address]
ATTN: [Safety Director]
If applicable add a fax number or e-mail address for timelier results.

If you have any questions regarding this request, please contact me.

Sincerely,

[Name]
[Title]

SAMPLE LETTER REQUESTING A MSDS

MSHA & OSHA JURISDICTION

[Date]

[Chemical Company Name]
[Chemical Company Address]

Re: MSDS for [Product]

Dear [Name or Position]:

The Occupational Safety and Health Administration's hazard communication standard (29 CFR 1910.1200) and the Mine Safety and Health Administration (30 CFR 47) require that chemical suppliers provide Material Safety Data Sheets (MSDS) to employers that purchase the products. Employers must in turn make these MSDSs available to employees potentially exposed to these hazardous substances.

The following list contains the chemicals purchased from your company that did not have a MSDS provided.

[List of Chemicals]

Please send a copy of the MSDS for these chemicals in a timely manner.

Your cooperation is greatly appreciated. Please forward the requested information to:

[Employer]
[Employer's Address]
ATTN: [Safety Director]
If applicable add a fax number or e-mail address for timelier results.

If you have any questions regarding this request, please contact me.

Sincerely,

[Name]
[Title]