

Hazardous Materials Information Communication

- **Per DMM Safety & Health Regulations**
- **Per MSHA Part 47 (HazCom)**

DMME

Division of Mineral Mining

Updated 2012

DMM Regulations

- Materials that can create hazards if accidentally liberated from their containers shall be stored in a manner that minimizes the dangers (**4VAC25-40-2560**).
- Corrosive, flammable, reactive and toxic materials shall be stored in acceptable containers and shall be labeled appropriately (**4VAC25-40-2570**).
- Substances that react violently or liberate dangerous fumes when mixed shall be stored in such a manner that they cannot come in contact with each other (**4VAC25-40-2630**).

DMM Regulations

- Water or neutralizing agents shall be available where corrosive chemicals or other harmful substances are stored, handled or used (**4VAC25-40-2520**).
- Acceptable protective clothing, respiratory protection, gloves and goggles or face shields, accepted by NIOSH or other approved agency, shall be worn by persons exposed to chemical substances that are corrosive, flammable, reactive or toxic (**4VAC25-40-2530**).

MSHA'S HazCom RULE

Effective September, 2002

Based on analysis of MSHA's
chemically-related injury and illness
database from 1983-2000

TOTAL RECORDS IN DATABASE	14,506
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<u>Nature of Injury</u>	
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Chemical Burns	4,652
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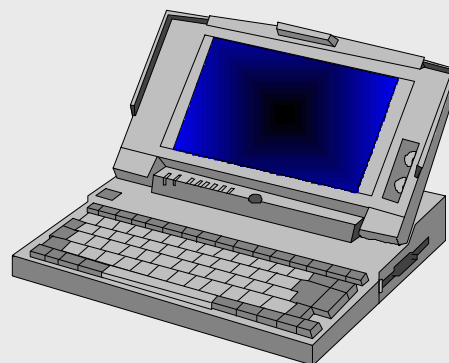
Chemical Poisonings	805
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Dermatitis	635
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Pneumoconiosis, Silicosis	7,395
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Suffocations, Smoke	462
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Other	557
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Key Requirements

Addresses specific issues related to the use of *chemicals* in mining and the *chemical exposures* of America's miners:

Chemical Inventory

Plan for Management of Hazardous Chemicals

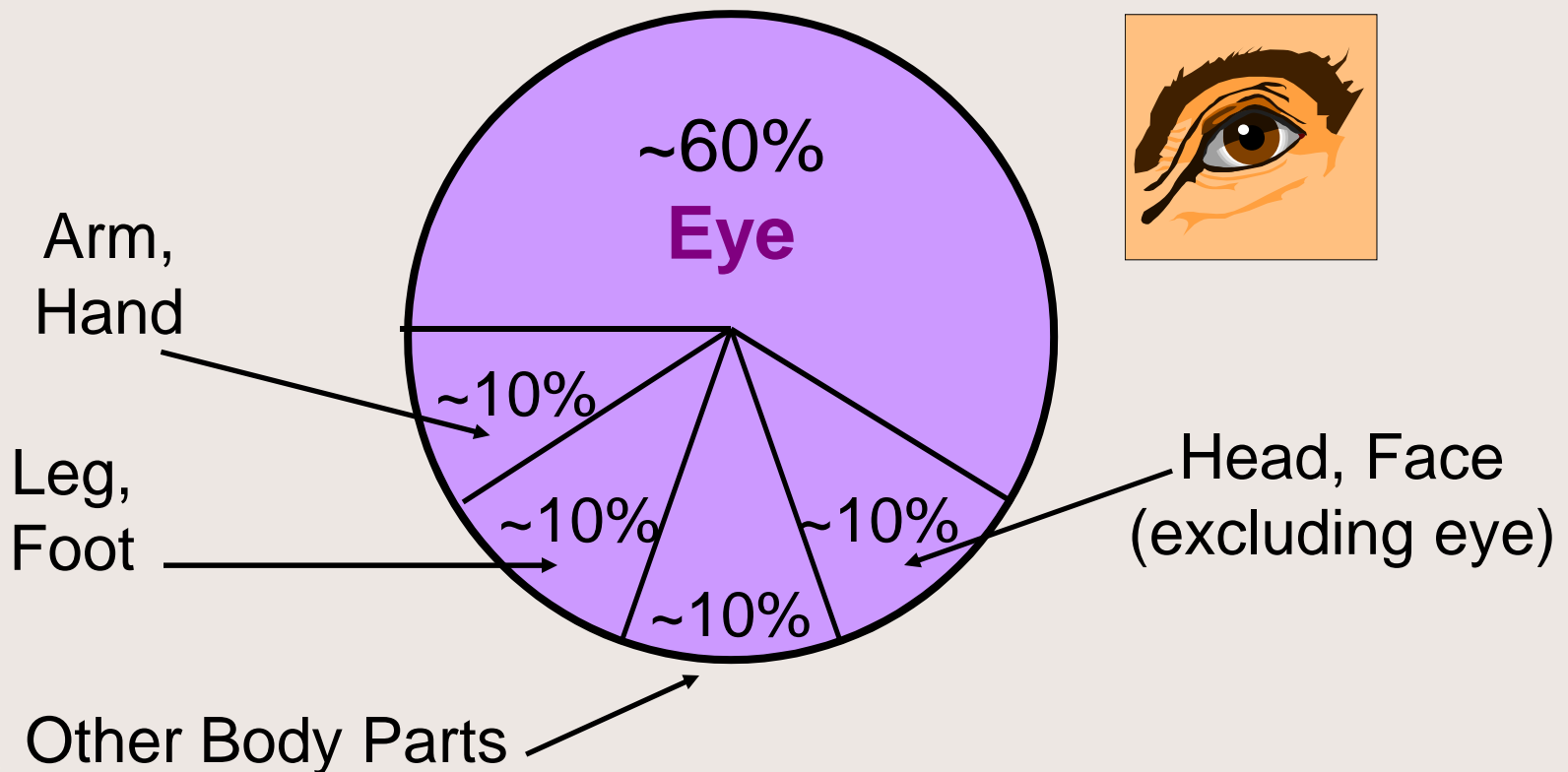
Material Safety Data Sheets (MSDSs)

Availability and Accessibility of HazCom Information

The Risk of Chemical Burns

(4,652 MSHA Injury Records)

MOST COMMON BURN SITES



From MSHA's Database

.... It appears that many chemical burns and chemical poisonings have occurred at mines with less than 25 employees.

.... It appears miners with less than 5 years mining and/or job experience are at a greater risk of chemical burns and poisonings.

HazCom's Basic Provisions

- Inventory the chemicals at the mine and determine which are hazardous.
- Keep a list of the hazardous chemicals.
- Establish a written HazCom Program.
- Make sure containers are labeled.
- Keep MSDSs.
- Train miners about the HazCom Program and the hazardous chemicals they can be exposed to.
- Allow miners access to HazCom info.

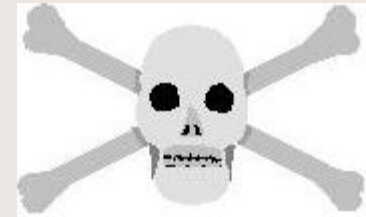
MSDS Requirements



- Operator must
 - have an MSDS for each hazardous chemical before using it.
 - prepare an MSDS for any/each hazardous chemical produced at the mine.
 - replace outdated MSDS for each hazardous chemical brought to the mine.
- Operator is not responsible for an inaccurate MSDS obtained from the chemical's manufacturer or supplier.
- MSDS's must be available and accessible to miners at any time.

Up To Date And Accessible MSDS's....

- May help a miner consider the hazards of each chemical BEFORE working with it.



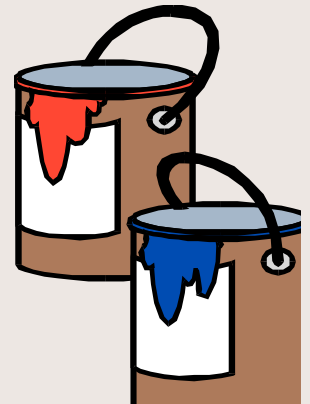
- May help a miner to “dress for success” by using the proper PPE.



- May help a miner to recognize a hazardous material induced illness or condition.

MSDS for Hazardous Waste

- If operators cannot obtain MSDS, they must give each potentially exposed miner access to any MSDS information that is available, such as
 - hazardous components;
 - physical or health hazards; or
 - protective measures.
- Hazardous waste is regulated by EPA.
 - Waste oil or other waste byproducts are not hazardous waste under this definition unless covered by EPA.

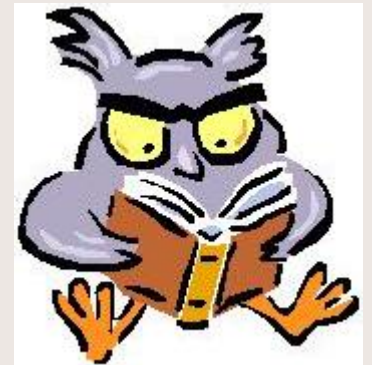


MSDS: Access and Retention

- Must give access during each work shift
 - at each work area where chemical is produced or used; or
 - at a central location provided that a miner can immediately access it in an emergency.
- Must keep the MSDS
 - as long as the hazardous chemical is at mine; and
 - notify miners at least 3 months before disposal.

DOES EACH MINER KNOW....

- Where the MSDSs are kept at the mine?
- They should not worry about understanding the many “technical” words when first reading an MSDS?
- They should not be concerned about the number of pages of an MSDS?
- They should not be afraid to ask questions about an MSDS (and ask the same questions AGAIN!)?



HazCom Training Requirements

- Operator must instruct each miner about the hazardous chemicals in his/her work area –
 - before first assignment to the area.
 - whenever a new chemical is brought into the area unless the miner was already trained about the hazards.
 - whenever the operator becomes aware of new and significant hazard information.
- Relevant training for parts 46/48 meets HazCom. Relevant HazCom training meets parts 46/48.
- Must keep records of training for 2 years.

Training Contents



- The physical and health hazards of the chemicals.
- HazCom regulatory requirements.
- The mine's HazCom program.
- Location and availability of HazCom information.
- Where hazardous chemicals are in the mine.
- How to tell if a chemical is present.
- The protective measures to take.
- How the operator protects the miner (engineering controls, etc).

Do Not Equate HazCom Training With “Task Training”!!

A miner’s “task” may not change, yet the chemicals/chemical process may change requiring evaluation of a chemical’s toxic effects

Example:

“Task”: cleaning of an engine part

Chemical/product used: organic solvent

BUT, *which solvent*????? It DOES matter

for example, the toxicity of benzene is NOT
the same as that of methyl ethyl ketone (MEK).

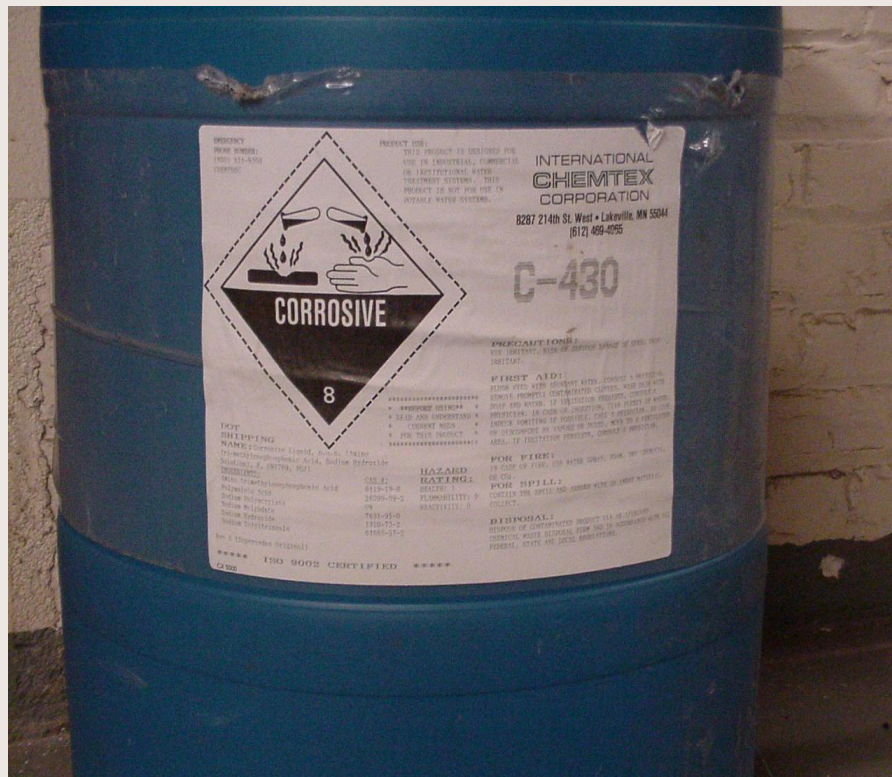


Labeling Requirements



- Ensure each hazardous chemical is labeled:
 - Immediately replace if missing or marred.
 - May not remove or deface.
- Chemical produced at mine:
 - Prepare a container label and
 - Update with significant new information within 3 months.
- Chemical brought to mine:
 - Replace outdated label when received.
- Not responsible for inaccurate label supplied by manufacturer.

Label Examples Per The Rules



- The operator must ensure that each container of a hazardous chemical has a label. If a container is tagged or marked with the appropriate information, it is labeled.

Labels

- The operator must replace a container label immediately if it is missing or if the hazard information on the label is unreadable.



Labels

- The operator must not remove or deface existing labels on containers of hazardous chemicals.



Labels



- For each hazardous chemical brought to the mine, the mine operator must replace an outdated label when a revised label is received from the chemical manufacturer or supplier.

Temporary, Portable Containers

- A temporary, portable container does not have to be labeled if....
 - It's filled directly from a labeled container
 - The operator ensures the miner using the container knows....
 - the identity of the chemical,
 - its hazards, and
 - the protective measures to take.
 - *The container is empty at the end of the shift.*

Temporary, Portable Containers

If the previous rules are not followed, then...



...the operator must mark the temporary, portable container with at least the common name of its contents.



**A temporary,
portable
container that
may meet the
requirements
for labeling!!**

- Contents may not be from a marked container.
- Worker may not be aware of the hazards.
- The container may not be left empty at the end of the shift.



Remember....

- A label's function is to ensure that the chemical user understands what is in a container.
- The hazards associated with the chemical.
- What safety precautions to take to work safely.

Exemptions From HazCom

A hazardous chemical is exempt from this part 47 under the following conditions:

- *Articles*^{*}, if under normal conditions of use,
 - (1) Releases no more than an insignificant amount of a hazardous chemical.
 - (2) Poses no physical or health risk to exposed miners.

Article, is a manufactured object other than a liquid or particle that is formed to a specific shape or design and it's use is dependant on the shape or design. **Example: a seat cushion or a plastic bucket.*

Exemptions

- Consumer Product or Hazardous Substance Regulated by CPSC (Consumer Products Safety Commission)
 - (1) If the miner uses it for the purpose the manufacturer intended; and
 - (2) Such use does not expose the miner more often and for longer than ordinary consumer use.
- Radiation: All ionizing or non-ionizing radiation, such as alpha or gamma, microwave, or x-ray.

Exemptions

- Wood or Wood Products, Including Lumber....

....If they do not release or otherwise result in exposure to a hazardous chemical under normal conditions of use.

For example, wood is not exempt if it is treated with a hazardous chemical and will be subsequently cut or sanded.

- Biological Hazards such as poisonous plants, insects, and micro-organisms.

END