Agriculture: GHS



WHAT'S AT STAKE?

When working with hazardous material, it is important to understand what threats each material can pose. Many factors play a part in the potential risk of injury: Incorrect handling of material, a lack of knowledge of the dangers of each material, lack of or improper labeling and neglecting to update and obtain the safe handling documents of each material.

WHAT'S THE DANGER?

Many workers can be neglectful, complacent, or simply untrained when working with hazardous materials. A lack of caution or knowledge can cause dangers such as: respiratory or skin sensitization, skin corrosion, damage to the eye, explosions, fire, acute toxicity, or long-term effects like carcinogenicity. Diligence and awareness come with proper education and updated, documented information on the hazards of each material.

EXAMPLE

A fifty-year-old was working in a poorly ventilated, freshly filled silo. He was positioned at the surface of the silage with the silo door shut and was not equipped with an air supplied mask. Nitrogen Dioxide had been accumulating around him. He began coughing and struggled to breathe, which followed with severe nausea. He immediately exited the area through the door to vomit, which gave him the opportunity to escape the deadly gas, breathe fresh air and seek medical help.

HOW TO PROTECT YOURSELF

Globally Harmonized System of Classification and Labelling of Chemicals (GHS) was designed to educate all employees on the dangers of working with hazardous materials. GHS has compiled a guideline to inform workers of the risks and safety methods of many different classes of dangerous material.

You should be able to read and understand the GHS classifications and the specific dangers they cause.

GHS Classifications

Under the GHS system, there are three overarching classes that each hazard fits into: Health Hazards, Physical Hazards and Environmental Hazards.

Health Hazards include:

- Acute Toxicity (Oral/Dermal/Inhalation)
- Skin Corrosion/Irritation
- Serious Eye Damage/Eye Irritation
- Respiratory or Skin Sensitization
- Germ Cell Mutagenicity
- Carcinogenicity
- Reproductive Toxicology
- Target Organ Systemic Toxicity – Single Exposure
- Target Organ Systemic Toxicity – Repeated Exposure
- Aspiration Toxicity

Physical Hazards include:

- Explosives
- Flammable Gases
- Aerosols
- Oxidizing Gases
- Gases Under Pressure
- Flammable Liquids
- Flammable Solids
- Self-Reactive Substances
- Pyrophoric Liquids
- Pyrophoric Solids
- Self-Heating Substances
- Substances which, in contact with water emit flammable gases
- Oxidizing Liquids
- Oxidizing Solids
- Organic Peroxides
- Corrosive to Metals
- Desensitized explosives

Environmental hazards include:

- Hazardous to Aquatic Environment (Acute/Chronic)
- Hazardous to the Ozone Layer

Each hazard class is also separated by a category or division to further determine the level of danger. For example, flammable liquids are sorted into categories 1 through 4 based on their flash points.

Labels

All hazardous products must be properly labelled. Here are the two types of labels:

1. A **supplier label** must be affixed to the product when delivered to the workplace.
2. A **workplace label** must be legible and affixed to containers that have been

filled by workers with material from supplier containers, to containers that have arrived from the suppliers without a label or to replace supplier labels that have become illegible or are missing.

Workplace labels must contain the following:

- Product identifier
- Information on the safe handling of the product
- A statement that informs the user that an SDS is available.

Workplace Identifiers can be used in situations where a workplace label is not possible (e.g. controlled substances pipes). The content of a workplace label can be colour coding, warning signs and pictures that convey the necessary information.

Safety Data Sheets (SDS)

An SDS is a document compiled by the supplier of the product. It contains the information of each specific hazardous material. This includes the risks and the safe handling practices.

The employer must update the SDS of each product every three years and must obtain any new and updated information for the SDS.

Training

Employees should be routinely trained and informed of the following information:

- The content, purpose, and importance of labels and SDS.
- Safe handling storage procedures, types of identification and their uses and the proper usage and disposal of controlled products.
- Training in emergency situations and the correct procedures to follow in the presence of stray emissions.

Be sure you are also wearing the appropriate protective gear for the job!

FINAL WORD

You must take the time to learn the many hazardous materials in your workplace. This includes labelling, reading and understanding the different classifications and their dangers, the material’s purpose and safe handling methods, where the SDS documents are and referring to them when necessary, and what you should do in the event of an emergency caused by a hazardous material.