

## **Spill Cleanup Contingency Program**

The goal of the spill cleanup contingency program is to have all on-site work comply with regulatory requirements and to have the site prepared to provide the best spill response possible quickly to protect property, people and the environment. To meet this goal, the program needs to include mechanisms for initiating and carrying out the required notifications, spill containment efforts, clean-up and remedial actions.

## **Spill Cleanup**

All spills must be cleaned up in such a way that the spill site is restored to its pre-spill condition as much as possible. This clean-up requirement applies to all spills, regardless to the scope of the spill and whether or not it was classified as a spill incident.

## **Initial Response**

The initial response to a spill by people working in the immediate area or by people who discover the spill should involve the following actions:

- Evacuating personnel from the immediate work area, (if hazard is serious enough)
- Informing the immediate work area supervisor whenever possible
- Making an initial assessment of the spill and the hazards involved
- Doing initial containment actions such as minimizing/ controlling hazards to people, covering/filling drains and drainage paths, constructing soil berms and deploying booms and sorbents
- Placing the spilled substances and contaminant materials/soils inside a drum or other appropriate sealable container if the spill is minor and of a nonreportable nature
- All Gillam sites shall have a spill kit at the ready for spills less than 5 gallons or 22.5 Litres

The immediate work area supervisor (or the person who discovered the spill if the supervisor was unavailable) must inform the Project Superintendent of the spill.

All spills will be managed, contained and cleaned immediately.

Spills less than 5 gallons or 22.5 Litres shall be dealt with immediately by the project Superintendent. Reference the spill clean and hazard awareness as per the products WHMIS 2015 Safety Data Sheet (SDS). Refer to Element 11 Hazard Preparedness Plan, item 11.8 Chemical Spills.

Anything more than 5 gallons or 22.5 Litres must be reported to the Gillam President, the Project Director and the Health and Safety Manager.

## **Written Reports**

All Spills will be reported on the Gillam Incident Report form and submitted to the Health and Safety Manager. The Health and Safety manager will submit the form(s) to the Environmental Regulatory Agency (if required) on the appropriate form(s) required by that agency.

Reports need to detail the cause of the spill and what events led up to it. Information on the type and volume of the substance spilled should also be included. The containment, clean up, disposal and remediation actions taken must be described.

Photographs of the spill site should be included as part of the report, along with records of notifications, written descriptions of decisions made and rationale behind them and any information on required sampling/sample analysis.

#### **WHMIS 2015**

WHMIS was designed to inform anyone who is exposed to hazardous materials in their workplace as well as acute and chronic health effects and the appropriate precautions to be used when handling, storing and disposing of controlled products.

WHMIS 2015 is comprised of both federal and provincial legislation that is implemented in each province and territory. The main purpose of the federal legislation is to ensure that all suppliers have available at all times health and safety information regarding the hazardous materials they produce and sell to employers. The main purpose of the provincial legislation is to ensure that all employers obtain information about the hazardous materials they have purchased for the use in their workplace and that this information is passed on to the worker. The development of this legislation evolved with the joint co- operation of labour, industry and government. WHMIS 2015 includes



new harmonized criteria for hazard classification and requirements for labels and safety data sheets (SDS), the roles and responsibilities for suppliers, employers and workers have not changed.

#### Labels

The two different types of labels that can be found in the workplace are described below.

### **Supplier Label**

Label with distinctive crosshatched border this is a specified label and does not vary. This label is placed on the original container of the hazardous product prior to it leaving the place in which it was manufactured.

If a product arrives on the project with a damaged supplier label, it must be returned to the manufacturer.

# **Workplace Label**

A label can be any sign, device, stamp, seal, sticker, ticket, tag or wrapper that appears on a controlled product to provide the user with basic information on how to safely handle the product.

This type of label is used when the product has been decanted.

## Safety Data Sheets (SDS)

The SDS provides detailed information on controlled products. The SDS is required in addition to the label. The label first alerts the worker that the product they are about to use is hazardous, while the SDS provides the worker with additional specific information.

## 1. Identification

The Identification section describes your item (including common names and synonyms), the supplier or manufacturer and what number to contact in case of questions or emergencies.

## 2. Hazards

The Hazards Identification section is your abstract of the hazards of the chemical. Risks are described by intensity and are often depicted in the NFPA 704 colored diamond or hazard information bar for quick visual interpretation. This is key to identifying the immediate impact on health, flammability and reactivity; the specifics are discussed explicitly in the following sections.

3. Composition and Ingredient Information
This section describes the makeup of the reagent or a
product formulation. Some data sheets list individual
ingredients and state if they are hazardous. Some data
sheets are more inclusive and include every chemical name,
formula and molecular weight in this section.

#### 4. First Aid Measures

The first aid measures tell you what you need to know to care for your colleagues if they are exposed to the substance. Remember, you are the first responder in case of spillage or exposure until backup arrives.

### 5. Firefighting Measures

Firefighting measures are crucial to have on hand because not every chemical fire is fought with water. For example, you should never put out a magnesium fire with water since that generates hydrogen—an extremely flammable gas. Instead, use sand.

Plus, some reagents decompose as they burn, creating secondary, equally intense hazards that you need to be aware of.

#### 6. Accidental Release Measures

This section explains what you need to do to protect yourself and the environment in the case of a spill. Where possible, it also details how to clean up after a spillage.

#### 7. Handling and Storage

The handling and storage section is self-explanatory, though it notes any particular properties, such as if the chemical readily soaks up moisture (hygroscopic). It also includes what conditions to avoid, such as segregating acids and bases.

8. Exposure Controls and Personal Protection
This section describes the personal protective equipment
(PPE) required to protect your lungs, eyes, hands and body
when handling the chemical. It defines any exposure limits
applicable to the ingredients in your reagent and helps you
decide whether or not to request exposure monitoring.

## 9. Physical and Chemical Properties

This section lists technical data, including molecular weight, color, odor, pH, phase change temperatures, flash point and vapor pressures, among other information that can help you distinguish one chemical from another.



10. Stability and Reactivity Information
Conditions that make the chemical unstable are listed.
Examples include shock, static electricity, or ambient
temperature. You can also find out if a chemical reagent
needs to be combined with an additive to maintain stability
and whether or not there are telltale signs of spoilage to
look out for, such as color changes.

## 11. Toxicological Information

Toxicological information alerts you to the nasty things a chemical can do to your body, like target specific organs, cause cancer (carcinogenicity), impair fetal development (teratogenicity), or mutate your DNA (mutagenicity).

Where available, it also includes the LD50 (for Lethal Dose, 50%). This is the amount of chemical required to kill 50% of test animals.

## 12. Ecological Information

The ecological information alerts you to the harm a reagent may cause the environment, how and where it accumulates and how long it takes to degrade.

Where available, it also includes the EC50 (for Effective Concentration, 50%). This is the amount of chemical required to produce half of the maximum value of a measurable effect.

## 13. Disposal Information

Disposal information describes how to discard your chemical and how to discard any contaminated packaging.

# 14. Transportation Information

Transportation information lists the shipping requirements that apply when the item is shipped from the supplier or from you to someone outside your organization.

## 15. Regulatory Information

This section contains required notices at regional, national and state levels. These pertain to health and environmental hazards.

## 16. Other Information

This is a general section within an SDS that contains miscellaneous information. Some manufacturers add the date of document creation and updates here. It might grant you the right to print unlimited copies for internal use or state that the information is under review.

Any helpful information that doesn't belong in the other 15 categories will be detailed here.

## **Worker Education**

Gillam's Health and Safety Program (HASP) ensures that all team members, craft labour, trade contractors, subcontractors, sub-subcontractors, suppliers and all others performing work on our sites has received legislated WHMIS 2015 training. Any person that has not received the training will not be able to enter a Gillam project site. Gillam will provide WHMIS 2015 training to all team members and craft labour. Training must ensure all persons will recognize what controlled products are in the workplace and know the proper precautions to take when handling, using and storing these products.

### **Hazard Classes and Groups**

The Federal Government finalized the Hazardous Products Regulation (HPR) on February 11, 2015, aligning Canada's Workplace Hazardous Materials Information System (WHMIS) with the UN's internationally agreed upon system, the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Hazard classes are a way of grouping together products that have similar properties. Most of the hazard classes are common to GHS and will be used worldwide by all countries that have adopted GHS. Some hazard classes are specific to WHMIS 2015.

Physical Hazards include;

- Noise
- Vibration

Controlled products include:

- · Flammable gases and aerosols
- Oxidizing gases
- Gases under pressure
- Flammable liquids
- · Self-reactive substances and mixtures
- Pyrophoric liquids, solids and gases
- Self-heating substances and mixtures
- Substances and mixtures which, in contact with water, emit flammable gases
- Oxidizing liquids and solids
- · Organic peroxides
- Corrosive to metals



- Combustible dusts
- Simple asphyxiants

### **Health Hazards**

Hazardous products in this group are classified on their ability to cause harmful health effects. These include:

- Acute toxicity
- Skin corrosion/irritation
- Serious eye damage/eye irritation
- · Respiratory or skin sensitization
- Germ cell mutagenicity
- Carcinogenicity
- Repruduce toxicity
- Specific target organ toxicity single and repeated exposure
- Aspiration hazard
- · Biohazardous infectious materials

#### **Environmental Hazards**

These are products that have an effect on the ozone layer or the aquatic environment. It has not been adopted into WHMIS 2015, however, WHMIS 2015 allows suppliers, employers and manufacturer's to include hazards on their labels and SDS whenever it is possible.

# **Hazard Group**

Every hazard class is assigned a group and is represented by an appropriate symbol for fast and easy identification. See below WHIMS 2015 Hazard Symbol Chart

## **Confined Space**

A confined space is defined as a space that has limited or restricted means of entry, is not designed for continuous occupancy and is large enough and configured so that a person can enter the space and maneuver well enough to perform tasks but has limited or restricted means for entry or exit. Examples of a confined space are tanks, vessels, silos, storage bins, hoppers, vaults, sewers, pits and sometimes trenches. The following Safety Precautions will be adhered to:

 Obtain and complete a Confined Space Entry Permit from a competent person. Submit and review the confined space entry permit with the Project Superintendent

- Workers planning on entering the confined space must notify the workers around the confined space of the work activities and post the entry permit near the entrance of the confined space
- When applicable, a lockout procedure must be performed to ensure that any machinery and/or equipment is in a zero energy state and all energy sources have been controlled
- When possible mechanically ventilate the confined space
- A 4A40BC fire extinguisher must be present
- The emergency first aid responder must be notified of the entry and be available in case of emergency
- A secure route and work area around the confined space must be available prior to commencing work, so as not to hamper any rescue efforts
- The person(s) entering the confined space must have the proper breathing protection and fit test
- The lighting in the confined space must be adequate for the work being done
- Quality air testing for the confined space must be performed and the results recorded on the confined space entry permit
- The person(s) entering the confined space must be able to communicate with the outside observer by voice or other means

In all cases the team performing the confined space work will refer to the project specific Confined Space Entry Permit for a list of equipment required for entry and rescue and verification that the equipment is in good working order.

Gillam will ensure the rescue equipment identified in the relevant plan is readily available.

### Sanitation and Hygiene

Sanitation is the hygienic means of promoting health through prevention of human contact with the hazards of wastes as well as the treatment and proper disposal of sewage or wastewater. Hazards can be either physical, microbiological, biological, or chemical agents of disease. The following facilities must be provided for workers before the work has started and access must be reasonable.



#### **Toilets**

Gillam will make arrangements for water flush toilets that are connected to a sanitary sewer when possible. When it is not possible, Gillam will ensure the correct amount of chemical flush toilets that are not connected to a sanitary sewer are available. Toilets will include:

- A toilet with an open front seat, toilet paper holder and adequate supply of toilet paper
- A self-closing door that can be locked from the inside
- Adequate light, heat, ventilation and privacy and protection from weather and falling objects
- If a facility is a single-toilet washroom facility, the facility must be completely enclosed (This does not mean a urinal must be completely enclosed)
- If the minimum number of toilets required at a project is five or more, at least one shall be designated for a female. The toilet must have a disposal receptacle for sanitary napkins and a sign indicating the facility is for a female
- If you have 4 or less toilets a Male or Female user can use the same toilet as long as the door locks from the inside and you have a disposal receptacle for sanitary napkins
- Male and Female toilets must have a sign confirming the appropriate gender use

Constructors must ensure that a minimum number of chemical flush toilets is available as prescribed per number of workers regularly employed at the project. Refer to the OHSA act and Regulations for construction projects, section 28 and 29.

Gillam teams must ensure all hygiene facilities are inspected daily, cleaned daily and always have a supply of hygiene toilet products for use.

All toilet facilities shall have a M or F sign at the front entry to advise who can use the facility when there are 5 required toilets or more.

For projects less than 5 you can use a double M and F signage, however the toilet facility shall have a disposal receptacle for sanitary napkins.

## **Clean-up Facilities**

Single-toilet facilities shall be provided with their own clean-up facility, or one clean-up facility for two single-toilet facilities located together in the same area of a project.

If it is not reasonably possible to have a wash basin with running water at a clean-up facility, both a means of cleaning hands and an alcohol-based hand sanitizer containing a minimum of 60 per cent alcohol must be provided

Gillam will ensure an adequate number of clean-up facilities as prescribed and ensure that they are equipped with wash basins, with both hot and cold running water where reasonably possible, paper towels and receptacle or a hand dryer.

## **Drinking Water**

Gillam will ensure workers are provided a reasonable supply of potable drinking water that is readily accessible at the project. The water supply shall come from a piping system or from a clean, covered container with a drain faucet. A sanitary means of drinking the water must also be provided.

## **Training**

Through the Gillam orientation process all team members, craft labour, trade contractors, subcontractors, subsubcontractors, suppliers and all others on our sites will verify their certified training in WHMIS 2015 and will receive the following:

- Instruction regarding safe handling and clean-up of environmental spills and location of the readily available spill kit
- Instruction regarding confined space work

When required, based on the scope of work to be performed, Gillam will ensure all team members, craft labour, trade contractors, subcontractors, subcontractors, suppliers and all others on our sites have obtained the required training for the specialized task(s) being performed.

In addition, all team members, craft labour, trade contractors, subcontractors, sub-subcontractors, suppliers and all others on our sites will be trained on how to read and understand Safe Work Procedures and Practices (SWP) and Safety Data Sheets (SDS).

The on-site Record of Training, Training Records Matrix and Orientation Checklist will confirm that all training has been obtained.



