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| **FACILITY INFORMATION** | |
| 1. Name of Plan: | Chemical Substances- Injury and Illness Prevention Plan |
| 1. Purpose: | * Prevent fatalities, injuries, illnesses (long-term or chronic), and incidents (hazardous or dangerous occurrences) caused by handling and using chemical substances. * Reduce damage to buildings, stock, and equipment. * Protect the environment and the community. |
| 1. Definitions: | * **Chemical**   + Any natural or artificial substance, whether in the form of a solid, liquid, gas, or vapor. * **Safety Data Sheet**   + includes information such as the properties of each chemical * **Personal Protective Equipment**   + Equipment worn to minimize exposure to hazards that cause serious workplace injuries and illnesses. * **Exposure Limit**   + indicates the level of admissible exposure to a chemical or physical hazard that is not likely to affect the health of a worker * **Emergency Response Assistance Plan**   + describes what to do in the event of a release or anticipated release of certain higher-risk dangerous goods while they are in transport * **Chemical Spill Kit**   + A kit containing a complete set of items required to clean up a chemical spill**.** * For further definitions, refer to [**Appendix A**](file:///C:\Users\RUTVI\Documents\Appendix%20A-Definitions.doc) |
| 1. Responsibilities: | **Managers and Supervisors**   * Develop an effective and sustainable injury/illness prevention plan. * The plan must include the following:   + Identification of chemical hazards   + Assessment of the risks specific to its use, production, storage, and disposal   + Implement appropriate primary, secondary, and tertiary controls, including developing safe work procedures and emergency procedures to address the hazards and risks. * Shall ensure that the plan is developed and implemented in consultation with the WSH Committee, safety Representative, and others who are or may be exposed to chemical hazards. * Implement and evaluate the effectiveness of the plans through the completion of inspections and audits. * Enforce all policies and procedures.   **Employees**   * Participate in the development of chemical hazard prevention plans. * Report symptoms of exposure to chemical substance hazards using the incident reporting form **(**[**Form 1**](file:///C:\Users\RUTVI\Documents\Form%201-Incident%20Report%20Form.docx)**).** * Request accommodation as per the Accommodation Policy. * Report any non-compliance relevant to procedures, safety data sheet (SDS), and Labelling as per WHMIS Regulation * Attend required training and comply with all policies and procedures.   **WSH Committee**   * Provide feedback on the plans * Monitor the plan’s effectiveness through the inspection, investigation, and audit processes. * Make recommendations to management for continuous improvement.   **Safety and Health Professional**   * Provide expertise during the development and implementation of the plans * Provide training for management and supervisors on the following:   + Proper evaluation of each hazardous substance to determine the risks, safe handling, use, storage, and disposal, in addition to the Job Hazard Analysis (JHA) process.   + Based on the evaluation, develop and implement safe work procedures   + Training workers on safe work procedures (SWPs).   + Record keeping and maintenance for compliance and due diligence. * Coordinate or deliver other required training where appropriate. * Coordinate or complete airborne exposure assessment and monitoring. * Participate in return-to-work accommodation request processes when requested. |

| **Components of Prevention Plan and Description of Prevention Controls:** | **Process Details** |
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| **RISK ASSESSMENT** | |
| Process | 1. Get the manufacturer’s Safety Data Sheet (SDS) for purchasing chemicals. 2. Read the SDS thoroughly to determine all risks associated with the chemical. 3. In consultation with the OHS Professional, the supervisor will perform a risk assessment **(**[**Use Form 7**](file:///C:\Users\RUTVI\Documents\Form%207-Chemical%20Risk%20Assessment%20Form.docx)**)** based on the SDS information before purchasing. 4. The OHS Professional will approve the risk assessment using the SDS. 5. Give the approved risk assessment and SDS to the purchasing department. No purchase shall be made without both the SDS and risk assessment. |
| **Purchasing and Receiving of Controlled Products** | |
| Risk Assessment - Prior to Purchase of Controlled Products | 1. Perform a risk assessment based on the SDS of the chemical to be purchased. 2. Implement controls based on the risk assessment performed. 3. Conduct a Job Hazard Analysis (JHA). 4. Develop a Safe Work Procedure (SWP). 5. Ensure there is proper PPE in place before the chemical is purchased. 6. Ensure there is proper storage for the chemical based on the SDS and WHMIS. 7. Check that the ventilation system is equipped to handle the chemical. 8. Attach the risk assessment and SDS to the purchase order. |
| Receiving Processes | 1. Inspect the product on the trailer to ensure there is no damage or leakage of the product. 2. Check the SDS, labels, and shipping manifest before removing the product from the trailer. 3. Accept the product and offload if everything is good; otherwise, reject the product. 4. Ensure the product purchase agreement will indicate the protocol. |
| **Inventory of MSDS/SDS** | |
| Retention of SDS: | * Must be retained for 30 years. |
| Updating: | * Purchaser to forward all updated SDS to the OHS professional for inventory. |
| Location: | * All SDS will be located in a white binder labeled SDS on the supervisor’s desk in each department. |
| **Labelling of Containers** | |
| Supplier Container | 1. Inspect the product at the beginning of each shift, ensuring the label is properly affixed and visible. 2. Ensure the supplier label has the following elements:    1. Product I.D    2. Supplier I. D    3. Hazard Pictogram(s)    4. Hazard Statement    5. Precautionary Statement 3. Replace the label immediately if there are any complications (i.e., the label is ineligible) with the label. |
| Workplace Container | * Whenever you dispense chemical products into another non-supplier container, affix the workplace label located on the shelf near the chemical supply. |
| **Chemical Storage Processes** | |
| Risk Assessment | * Review and follow the SDS for proper storage requirements |
| Compatibilities | 1. Check the SDS for compatibility. 2. Separate flammables from oxidizers. As well as separate all incompatibles in the storage area. |
| **Preventative Maintenance of Equipment** | |
| Preventative Maintenance | 1. Inspect all chemical distributions for any tube leaks, erosion, etc. 2. Follow the preventative maintenance plan according to the manufacturer’s instructions on any equipment used with the chemicals. |
| **Personal Protective Equipment** | |
| Risk Assessment | * Perform a JHA using the SDS as a resource. |
| Selection Process | 1. Check the SDS for required PPE. 2. Compare the PPE requirements to the CSA standard, ensuring all PPE is CSA approved. 3. See JHA for the selection of required PPE. 4. Train all workers and supervisors on PPE and ensure PPE is available to all workers who require them. |
| Use of PPE | 1. Inspect all PPE prior to use, following the PPE checklist **(**[**Use Form 8**](file:///C:\Users\RUTVI\Documents\Form%208-PPE%20Pre-use%20Inspection%20Form.docx)**)** for any wear and tear, rips, and holes. 2. Inspect all PPE for any signs of corrosion 3. Replace any damaged PPE immediately before wearing it. 4. Give the supervisor the completed PPE checklist for corrective actions or record retention for 5 years. |
| Use of NIOSH-Approved Respirators | 1. Check the respirator to ensure it is NIOSH approved. 2. Coordinate a fit test for the worker(s) by a competent and certified person completes. Fit test records must be provided to the OHS Professional for record retention for 5 years. 3. Inspect the respirator before donning on and perform a seal check prior to entering the area where exposure to the chemical may exist. |
| Maintenance/Storage | 1. Store all PPE in a personal locker. 2. Ensure your respirator is hanging in a locker away from damage and the cartridges are sealed and stored. 3. Check that all other PPE is correctly stored within a locker, free from exposure resulting in damage. |
| Replacement | * Replace all defective PPE immediately using the PPE vending machine in your department. * If you cannot access the vending machine, report to your supervisor. |
| **Exposure Monitoring** | |
| Exposure Monitoring Responsibilities | 1. Perform exposure monitoring when any of the following take place:    1. A worker makes a complaint.    2. Exposure Limit exceeds the TLV on the SDS.    3. A worker becomes pregnant ( if exposure to hazardous chemicals affecting the person or the fetus i.e. teratogens)    4. Before entry into any confined space.    5. A new hazardous chemical is introduced into the workplace. 2. Report any of the above concerns to your supervisor immediately. 3. Perform a risk assessment of the hazardous material 4. Decide if air exposure monitoring is required. |
| Credentials of the Person who will complete the Monitoring | * OHS professional to arrange exposure monitoring by a competent and certified [Occupational Hygienist](https://www.pinchin.com/ContactUs/86) or anyone who is competent (CRSP) who has experience in air exposure monitoring. |
| **Transportation of Chemicals** | |
| Within the Boundaries of the Facilities:  Inside | 1. Transport chemicals in specific containers using:    1. Spill containment pallets    2. Chemical transport cart 2. Inspect the chemical transport equipment before transporting the chemical. 3. Ensure the chemical spill kit is located on the transport equipment and the SDS and labels are all visible and intact. 4. Carry all required PPE where necessary (i.e. chemical spill clean-up). 5. Follow the pre-planned transport route to prevent worker exposure and accidental spills. 6. Receive a signature from the supervisor once the product is delivered. |
| Outside | 1. Follow [Transportation of Dangerous Goods](https://tc.canada.ca/en/dangerous-goods/transportation-dangerous-goods-canada?utm_campaign=tc-dangerous-goods-ongoing&utm_medium=vurl&utm_source=tc-gc-ca-tdg) (TDG) regulations. 2. Ensure that all persons transporting the product hold a TDG training certificate. 3. Check that all products being transported are properly labeled and have an SDS attached.    1. Dangerous goods label    2. Shipping Name    3. Technical Name    4. UN number of the product 4. Check that the trailer transporting the product contains the correct placards.    1. Must be visible on all four sides of the trailer 5. Check that the driver has all the phone numbers required to make a report in case of an accidental spill. 6. Check that the driver has received a registered Emergency Response Assistance Plan (ERAP) and a shipping document before loading the product onto the trailer. |
| Transport using Public Transport | 1. Check provincial and federal regulations. 2. Ensure the person transporting the product is certified and trained in TDG. 3. Check that the chemical is secured and stored properly. 4. Check that the product is labeled and contains the following information:    1. Dangerous good label    2. Shipping name    3. Technical name    4. UN number of the product 5. Ensure the driver has received a registered ERAP and a shipping document before leaving the premises. 6. Check that the driver has all the phone numbers required to make a report in case of an accidental spill. |
| Emergency Equipment | * Ensure that the driver has the following equipment on hand in case of an emergency:   + First-Aid Kit   + Fire Extinguisher   + Spill containment and cleanup material   + Emergency eyewash bottle   + Communication device   + Chemical spill kit   + PPE |
| **Accommodation Requirements**  **(include section of the legislation)** | |
| Pregnant Women or Women who breastfeed | 1. Give a doctor’s note to the supervisor 2. Perform a risk assessment of the worker’s task 3. Accommodate the worker as per the doctor’s note |
| Others with confirmed existing medical conditions | 1. Give a doctor’s note to the supervisor 2. Perform a risk assessment of the worker’s task. 3. Collaborate with the worker to ensure accommodations are satisfactory 4. Implement appropriate accommodations. |
| **Emergency Plans** | |
| Chemical Spills | Follow these steps for Chemical Spills:  Minor Chemical Spill:   1. Alert others: Sound the alarm and isolate the area if safe to do so. 2. Put on PPE: Ensure all PPE is worn (chemical-resistant apron, gloves, safety goggles, etc.) 3. Control the spill: Using the chemical spill kit cover, absorb the spilled chemical. 4. Dispose of contaminated material: Read the SDS and dispose of the contaminated material according to the SDS instructions. 5. Decontaminate: Clean the area with the specific cleaning agent and dispose of it as per the SDS instruction. 6. Report: Inform your supervisor and OHS professional of the incident and complete an incident report (Form 1). 7. Supervisor to do an investigation and ensure corrective actions are implemented.   Major Chemical Spill:   1. Evacuate the area immediately and create a perimeter if safe to do so. 2. Report to your supervisor and OHS professional, who will contact the necessary authorities. 3. Put on PPE: If safe to do so, put on appropriate PPE (chemical-resistant apron, chemical-resistant gloves, safety goggles, etc.) 4. Control the spill and stop it from spreading using dikes or absorbent materials from the chemical spill kit. 5. Neutralize the chemical by applying the appropriate chemical according to the ERAP. 6. Collect and dispose of the contaminated material as per the ERAP and SDS instructions. 7. Fill out an incident report and give it to your supervisor. 8. Supervisor and Committee will do an investigation and ensure corrective actions are implemented. 9. Contact MB Conservation for reportable spills 10. Contact WSH Officer due to uncontrolled spill. |
| First Aid / Medical Assistance | **Eye Contact**   1. Rinse your eyes for 15 minutes using the nearest eyewash station. 2. Check for and remove contact lenses. Only if safe to do so. 3. Seek medical attention Call 9-1-1   **Minor Skin Contact**   1. Rinse the affected area with water immediately 2. Remove any clothing or jewelry that came in contact with the chemical 3. Seek medical attention Call 9-1-1   **Major skin Contact**   1. Get in the emergency shower immediately and remove all clothing and jewelry 2. Rinse using the emergency shower for a minimum of 15 minutes 3. Change into a clean fresh set of clothing 4. Seek medical attention Call 9-1-1   **Ingestion**   1. Call 9-1-1 2. Check SDS and call [Poison Control](https://www.manitobapoison.ca/about-us/contact-us) 3. Seek immediate medical attention |
| Fire Emergency | * See fire emergency procedure |
| Emergency Equipment | * All emergency equipment required:   + Eyewash stations   + Fire Extinguisher   + Emergency showers   + First-aid kits   + Spill response kit   + Respirator   + PPE   + Two-way radios |
| Use of Fire Extinguishers | Different fire extinguishers are designed to put out different types of fires. The kind of fire extinguisher you should use during a fire depends on the type of fire you are dealing with. For specific fire extinguishers, see [**Appendix I**](file:///C:\Users\RUTVI\Documents\Appendix%20I-Fire%20Extinguishers.jpg)**.**  For how to use a fire extinguisher, see attached [video](https://www.youtube.com/watch?v=PQV71INDaqY&feature=youtu.be). |
| Use of Eyewash / Shower Stations | The type of hazardous substance and the type of activity being done will determine where and how many eye wash stations are needed. The following are the processes for figuring out when and where wash stations are needed:   1. Identify hazardous/chemical substance 2. Determine the level of exposure 3. Determine the location and number 4. Install and maintain an eye wash station   See attached video on how to use the [eyewash station](https://www.youtube.com/watch?v=NvLo7TGmDmc). |
| **Reporting** | |
| Chemical Spills | 1. Report to the supervisor immediately. 2. Contact all external authorities listed below. |
| Air Quality Issues | When reporting air quality issues, employees must report issues to the supervisor in writing by filing out a hazard reporting form. |
| External Authorities | Reporting hazards to external authorities must be utilized when the workplace does not have the resources to control the hazard safely. Employees can also report hazards to the government at their discretion.   * Chemical injury serious incident [workplace health and safety division](https://www.manitoba.ca/labour/safety/) * Chemical Spills- [Manitoba Conservation Department](https://www.manitoba.ca/nrnd/fish-wildlife/wildlife/wildlife_human/index.html#:~:text=condition%2C%20if%20possible.-,Contact%20a%20conservation%20officer%20to%20report%20the%20situation%20by%20calling,the%20best%20course%20of%20action.) * Check the Manitoba conservation regulation (reportable chemical spill volumes) * Fire- call 911 |
| **Hazardous Waste** | |
| Removal of Hazardous Waste | The removal of hazardous waste must be removed by an external contractor (earth waste management). The hazardous waste will be kept in a locked cage located at the rear end of the building prior to removal. Each drum must have proper labeling and a designated SDS. Within the organization, designated maintenance staff will have access to the cage and will oversee the proper storage of all materials. The external contractor will be the only one authorized to dispose of all hazardous waste. |
| **Record Keeping** | |
| SDS | SDS must be retained for **30 years.** |
| Other (list specific record retention) | As per the record retention schedule (Appendix D). |
| **Review of the Plan** | |
| Time Frame | This plan must be reviewed at a minimum every 3 years or sooner as processes and legislation change. |
| Responsibility | Employer to review this plan in consultation with the committee. |
| **Training (See Training Matrix** [**Appendix C**](file:///C:\Users\RUTVI\Documents\Appendix%20C-Training%20Matrix.xlsx)**)** | |