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| --- |
| **Consequences** |
|  | **Extreme***Death or permanent disability* | **Major***Serious bodily injury* | **Moderate***Medical treatment and time away from work may be required\** | **Minor***First aid, no lost time* |
| **Likelihood** |
| **Very likely***Could happen frequently* | 1 | 2 | 3 | 4 |
| **Likely***Could happen occasionally* | 2 | 3 | 4 | 5 |
| **Unlikely***Could happen, but rare* | 3 | 4 | 5 | 6 |
| **Very unlikely***Could happen, but likely never will* | 4 | 5 | 6 | 7 |

**\*** Don’t underestimate “moderate” consequences. They could be very important — give them serious consideration.

**The scores (1 – 7) indicate how important it is to do something about each risk**

|  |  |  |
| --- | --- | --- |
| **1, 2, 3** | **HIGH** | Do something about these immediately |
| **4,5** | **MODERATE** | Do something about these risks as soon as possible |
| **6,7** | **LOW** | These risks may not need immediate attention |

**Factors to consider when determining:**

|  |  |
| --- | --- |
| **Likelihood** | **Consequences** |
| Number of times a situation occurs | Potential for chain reaction |
| Number of people exposed and duration | Substance concentration |
| Skills/experience of persons exposed | Material volume |
| Position of the hazard relative to people and other hazards | Speed of projectiles or moving parts |
| Special characteristics of workers that may affect the likelihood of an incident | Height of worker or lanyard |
| Quantities of materials or point of exposure | Worker position relative to the hazard |
| Environmental conditions | Weight of worker or hazard |
| Condition of the equipment | Forces and energy level |
| Effectiveness of existing control measures |  |



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| --- | --- |
| **Risk Assessment:** | **Chemical Storage and Use** |
| **Company Name:** |  | **Workplace Location(s):** |  |
| **Prepared by:** |  | **Date:** |  |
| **Workplace Risk Level:** | **High** (Workplaces at which corrosive chemicals or other materials are used in a manner, concentration and quantity which present a risk of irreversible tissue damage to the eyes or skin, or of serious illness resulting from rapid absorption of a toxic substance through the eyes or skin, or where the work activity presents a risk of ignition of the clothing.) |

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| **Assessment** |
| **Tasks** | **Hazard(s)** | **Level of Risk** | **Control** |
| **Chemical Storage** | Container Leak/ Puncture | **Low** | * Limited (no if possible) mobile equipment to be operated in storage area.
* Area is to be identified where the chemicals will be stored (paint/tape on the ground) – do not store anything else in this area.
* Reduce personnel movement within storage area.
* Do not store incompatible barrels/containers side by side, ensure separation exists between these types of chemicals.
* Ensure SDS have been obtained for all chemicals in storage area.
* Ensure eye wash station and first aid kit are readily available.
* Ensure all workers handling chemicals have taken a WHMIS course and have received site specific training on the chemicals being used.
* Chemical barrels/containers will be inspected upon delivery to the farm and at a frequency to ensure they do not become a hazard.
* Ensure product labels are intact and legible.
* Place barrels/chemicals in spill containment units of possible.
 |
| **Chemical Use** | Container Leak/ Puncture | **Low** | * Limited (no if possible) mobile equipment to be operated in storage area.
* Area is to be identified where the chemicals will be stored (paint/tape on the ground) – do not store anything else in this area.
* Reduce personnel movement within storage area.
* Do not store incompatible barrels/containers side by side, ensure separation exists between these types of chemicals.
* Ensure SDS have been obtained for all chemicals in storage area.
* Ensure eye wash station and first aid kit are readily available.
* Ensure all workers handling chemicals have taken a WHMIS course and have received site specific training on the chemicals being used.
* Chemical barrels/containers will be inspected upon delivery to the farm and at a frequency to ensure they do not become a hazard.
* Ensure product labels are intact and legible.
* Place barrels/chemicals in spill containment units of possible
 |
| Exposure to chemicals | **Low** | * Slowly remove/replace hoses to barrels/containers if pumping from these containers.
* Wear appropriate PPE (as dictated by SDS)
* Do not slop or drip chemicals when removing or replacing hoses.
* If decanting chemicals – ensure a workplace label is affixed to the container the chemical is being decanted to
* When decanting chemicals ensure worker uses measuring devices designated for the chemical being used and that all measuring devices are cleaned appropriately after use
* Ensure SDS have been obtained for all chemicals in chemical use area.
* Ensure all workers handling chemicals have taken a WHMIS course and have received site specific training on the chemicals being used
 |
| **Moving Chemicals** | Barrel / ContainersLeak / Puncture / Tip over | **Moderate** | * Ensure product labels are intact and legible.
* Ensure all workers handling chemicals have taken a WHMIS course and have received site specific training on the chemicals being used.
* Use 2 people to move barrels (if possible)
* Move all hazards (tripping hazards, or hazards that may impede movement of the barrel or puncture barrel) between storage area and chemical use area prior to moving barrel.
* Inform all workers in the area that you will be moving barrels full of chemical.
* Utilize a barrel dolly, do not attempt to roll the barrel (be caution if using mobile equipment to move barrels as barrel punctures can occur).
* Inspect barrels/containers prior to and following move.
* When moving 275-gallon totes with mobile equipment, ensure mobile equipment operator competency has been determined (if possible, use 2 workers to ensure totes are not punctured by a fork)
* When unloading totes from trucks, first inspect to ensure no leaks or damage is present and then only unload on flat stable ground.
* Inspect transport truck deck prior to entering with a forklift.
* Add all incoming chemicals to chemical inventory.
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| **Note (Eye wash and emergency shower requirements):** |
| * Eye wash station - Tempered, continuous flow eyewash facility with a minimum duration of 15 minutes (or more if required by the nature of the material). Within 5 seconds walking distance of the hazard area, but no further than 6 m (20 ft). For high-risk corrosive gases such as ammonia or chlorine, the facilities must not be located in the gas storage or use area, but rather, adjacent to it.
* Emergency Shower - Tempered, continuous flow emergency shower facility with a minimum duration of 15 minutes (or more if required by the nature of the material). Same location criteria as for high-risk eyewash facility except that the shower may be located further than 6 m if
1. A supplementary emergency washing facility such as a non-tempered drench hose is located within 5 seconds walking distance of the hazard area but no further than 6 m, and
2. A tempered shower facility is available within the building to start emergency washing within 5 minutes of the contact.
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