|  |  |
| --- | --- |
| **Company Name:** | **Workplace location:** Varied: Extraction Facility |
| **Prepared by:** | **Date:** |
| **Tasks / Activities** | **Hazard** | **Risk Level** | **Control Measures** |
| **Hydrocarbon Extraction** | Explosion/Flammable | **Moderate** | * Ensure proper ventilation in extraction room (always check to ensure ventilation/exhaust equipment is working properly)
* Ensure worker is wearing appropriate PPE (if respirator is required – fit testing will be required)
* Properly store all solvents in flammable cabinets when not in use
* Decant solvents into proper labelled containers and in an area with proper ventilation
* Worker operating extraction must be deemed competent to operate
* Worker follows manufacturers manual while operating extraction equipment
* Worker follows maintenance schedule for extraction equipment as set out by manual
* All repairs/service on extraction equipment is performed by a qualified person
* Worker inspects extraction equipment prior to use
 |
| Inhalation/Skin Exposure | **Low** | * Ensure proper ventilation in extraction room (always check to ensure ventilation/exhaust equipment is working properly)
* Ensure worker is wearing appropriate PPE (if respirator is required – fit testing will be required)
* Decant solvents into proper labelled containers and in an area with proper ventilation
* Worker has completed WHMIS course and has been trained on site with chemicals that will be used during the extraction process
 |
| **CO2 Extraction** | High Pressure | **Low** | * Worker operating extraction must be deemed competent to operate
* Worker follows manufacturers manual while operating extraction equipment
* Worker follows maintenance schedule for extraction equipment as set out by manual
* All repairs/service on extraction equipment is performed by a qualified person
* All high vessel pressures are secured
* Worker inspects extraction equipment prior to use
* Worker has completed WHMIS course
 |
| High Temperature | **Low** | * Worker dons PPE prior to handling any aspect of the equipment that will experience high temperatures
* Any part of the extraction equipment that will experience high temperatures is identified
 |
| Explosion/Flammable(winterization) | **Moderate** | * Ensure proper ventilation in extraction room (always check to ensure ventilation/exhaust equipment is working properly)
* Ensure worker is wearing appropriate PPE (if respirator is required – fit testing will be required)
* Properly store all solvents in flammable cabinets when not in use
* Decant solvents into proper labelled containers and in an area with proper ventilation
 |
| Inhalation/Skin Exposure(winterization) | **Moderate** | * Ensure proper ventilation in extraction room (always check to ensure ventilation/exhaust equipment is working properly)
* Ensure worker is wearing appropriate PPE (if respirator is required – fit testing will be required)
* Decant solvents into proper labelled containers and in an area with proper ventilation
* Worker has completed WHMIS course and has been trained on site with chemicals that will be used during the extraction process
 |
| **Alcohol/Ethanol Extraction** | Explosion/Flammable | **Moderate** | * Ensure proper ventilation in extraction room (always check to ensure ventilation/exhaust equipment is working properly)
* Ensure worker is wearing appropriate PPE (if respirator is required – fit testing will be required)
* Properly store all solvents in flammable cabinets when not in use
* Decant solvents into proper labelled containers and in an area with proper ventilation
* Worker operating extraction must be deemed competent to operate
* Worker follows manufacturers manual while operating extraction equipment
* Worker follows maintenance schedule for extraction equipment as set out by manual
* All repairs/service on extraction equipment is performed by a qualified person
* Worker inspects extraction equipment prior to use
 |
| Inhalation/Skin Exposure | **Low** | * Ensure proper ventilation in extraction room (always check to ensure ventilation/exhaust equipment is working properly)
* Ensure worker is wearing appropriate PPE (if respirator is required – fit testing will be required)
* Decant solvents into proper labelled containers and in an area with proper ventilation
* Worker has completed WHMIS course and has been trained on site with chemicals that will be used during the extraction process
 |
| Cold Exposure | **Low** | * Ensure worker is wearing proper PPE when super cooling ethanol
 |
| Ethanol Storage | **Low** | * This method requires a great deal of Ethanol, ensure ethanol is stored properly in flammable cabinets or storages facilities that meet regulatory requirements.
 |
| **Agitation Extraction** | Entanglement | **Low** | * Ensure worker does not open lid/access mixture when operating (agitating)
* Worker operating extraction must be deemed competent to operate
* Worker follows manufacturers manual while operating extraction equipment
* Worker follows maintenance schedule for extraction equipment as set out by manual
* All repairs/service on extraction equipment is performed by a qualified person
* Worker inspects extraction equipment prior to use
 |
| Cold Exposure (ice/dry ice) | **Low** | * Ensure worker is wearing proper PPE when handling ice/dry ice
* Ensure dry ice is stored properly (do not fix lid on storage vessel (dry ice expands and could cause the vessel to rupture if lid is fixed in place)
 |
| **Heat and Pressure Extraction** | High Pressure | **Low** | * Worker operating extraction must be deemed competent to operate
* Worker follows manufacturers manual while operating extraction equipment
* Worker follows maintenance schedule for extraction equipment as set out by manual
* All repairs/service on extraction equipment is performed by a qualified person
* All high vessel pressures are secured
* Worker inspects extraction equipment prior to use
* Worker has completed WHMIS course
 |
| High Temperature | **Low** | * Worker dons PPE prior to handling any aspect of the equipment that will experience high temperatures
* Any part of the extraction equipment that will experience high temperatures is identified
 |
| **Notes:** |

