Hazardous Chemical Risk Assessment

Work / Job:

Work area:

Summary of process:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Hazardous Chemicals | Task(*description of use*) | Exposure Routes(*skin/eye, inhalation, ingestion*) | Controls already in place | Risk to HealthY / N / Unsure | Actions |
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| Are there any reported health effects? |
| Physiochemical effects: |
| Other comments: |
| Assessment completed by:Date competed: \_\_\_ / \_\_\_ / \_\_\_\_ Date of review: \_\_\_ / \_\_\_ / \_\_\_  |

Hazardous Chemical Risk Assessment (SAMPLE)

Work / Job: *Cleaner*

Work area: *School buildings* */ Offices / Aged Care Facility / Residents Rooms*

Summary of process: Cleaning amenities with diluted and undiluted ‘Britewash’ and ‘Sparkle’

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| --- | --- | --- | --- | --- | --- |
| Hazardous Chemicals | Task(*description of use*) | Exposure Routes(*skin/eye, inhalation, ingestion*) | Controls already in place | Risk to HealthY / N / Unsure | Actions |
| *Britewash* | 1. *Diluted to disinfect toilets (daily)*
2. *Diluted to spray showers (weekly)*
 | *Skin/eye**Skin/eye* | *Gloves and goggles provided**Correct procedure is used (concentrate is added to water).*  | *Y**Y* | *Pump dispenser to be purchased.**Bottles with proper labels to be provided* |
| *Sparkle* | 1. *Used undiluted to clean toilets (daily)*
2. *Diluted to clean tiles and basins (daily)*
 | *Skin / eye**Inhalation and skin / eye* | *Wear gloves (concentrate is added to water)**As above* | *Y**Y – low risk* | *Pump dispenser to be purchased.**Bottles with proper labels to be provided* |
| Are there any reported health effects?No skin, eye or respiratory problems have been reported by the cleaners. Team have decided no significant health risks.  |
| Physiochemical effects:No fire or explosion risk associated with these chemicals. |
| Other comments: |
| Assessment completed by:Date competed: \_\_\_ / \_\_\_ / \_\_\_\_ Date of review: \_\_\_ / \_\_\_ / \_\_\_  |

## **Managing Hazardous Chemicals - Risk Assessment**

This document relates to the risk management of chemicals that have been identified as ‘hazardous’ according to their Safety Data Sheet and that are used in non-curriculum workplace activities involving workers (i.e. students are not involved in the work process). Risk assessments must be completed and control options implemented for all designated hazardous chemicals.

ThisRisk Assessment template may be used for:

* the management, storage, handling and use of single chemicals or classes of chemical (e.g. in a store);
* chemicals with similar chemical characteristics and purposes; or
* activities involving a specific work process across agricultural studies, science, design and technology, art, grounds and facilities, home economics and office non-teaching areas.

You must always refer to the product Safety Data Sheet (SDS) for hazard identification and risk characterisation. Before using any hazardous chemical in a workplace activity, a risk assessment is to be undertaken to determine:

* how the hazardous chemicals should be used
* how persons are exposed to hazardous chemicals
* whether the risk from the hazardous chemical is significant
* how exposure to hazardous chemicals in the workplace should be controlled.

Risk assessment instructions:

1. Complete the requested information in sections A-K by entering details in the field or check boxes when prompted. Ensure you describe what the hazard is, when it occurs and where the hazard is present.
2. When prompted, skip ahead to the identified section when information is not applicable or when information is provided in a supporting document (e.g. procedure, SOP). Make sure this supporting documentation is attached to this risk assessment if appropriate to do so.
3. Provide details of the risk controls to be used to control the hazard. Ensure the Hierarchy of Control is considered during this process.
4. Determine and record an overall risk conclusion for the activity. Conclusion 3 and 4 activities must not proceed as the risk levels are significant and not controlled or uncertain. These activities must be modified and the risk level reduced to the lowest practicable level (i.e. conclusion 1 or 2)
5. Additional information is contained in Guidance notes 1-3.
6. Print your risk assessment (sections A-K). Ensure that any workers using the chemical(s) have read and understood the contents of the risk assessment and all identified control measures are implemented to minimise any exposure risks.

**Chemicals Risk Assessment**

## **[Name of activity]**

 **A Chemical risk details**

|  |
| --- |
| Chemical Name\*(s):  |
| Location of storage/use:  |
| Concentration(s) of chemical:  |
| Details of activity/process/task chemical is used for: (attach SOP if available)  |
| A current Safety Data Sheet (SDS) less than five years old is available for the hazardous chemical(s) and has been reviewed. All actions indicated by the SDS for the control of hazards and risks associated with the hazardous chemical will be complied with: [ ]  **YES**  [ ]  **No – do not proceed until you have reviewed the SDS and implemented the specified risk control measures** |
| Is the concentration hazardous? (as listed in Designated hazardous Substances (<http://www.hsis.safeworkaustralia.gov.au/SearchHS.aspx> )**[ ]**  No [ ]  **YES**. If yes, have the details of the chemical/ material been recorded in the Hazardous Chemicals Register? [ ]  No. **Update the register**[ ]  Yes. If yes, what is the hazard Class and Category (see guidance note A):  |
| Signal word:  | Packaging Group:  | Hazchem code(s):  |
| Is the product (stock, decanted or diluted) labelled in accordance with regulations and is the labelling securely attached?[ ]  **YES**  [ ]  **No- do not proceed until a suitable labelling has been securely attached to the container** |
| What are the hazards associated with this/these chemicals (H statements, and specific warnings from the SDS e.g. flammability, vapours, stability, reactivity; see guidance note A):  |
| What is the physical state of the chemical(s)?  |
| Solid (powder) | [ ]  | Liquid | [ ]  | Gas | [ ]  | Soluble in water? | [ ]  Yes | No [ ]   |
| Solid (granule/ pellet) | [ ]  | Volatile | [ ]  | Unstable | [ ]  | Other: |
| Risk Assessment prepared by:  | Date:  |

\*for risk assessment for multiple chemical storage all fields **must be compatible** according to storage and segregation requirements listed on the Safety Data Sheet.

**B Exposure Hazards**

Determine the level of exposure to the chemical. People exposed to the hazards associated with the chemical must be consulted and advised of the risk management process. Consider the level of exposure during storage, handling, use and disposal processes. Refer to the Safety Data Sheet for chemical-specific information.

|  |  |
| --- | --- |
| Are any of the following routes of entry an exposure risk?  | [ ]  No, there are no exposure risks - go to **C**  |
| Inhalation | [ ]  | Ingestion | [ ]  | Skin contact |  [ ]  | Eye contact | [ ]  | Injection | [ ]  |
| Is exposure hazardous to the health of the person/s exposed e.g. toxic (acute exposure); hazardous to health (chronic exposure)?  |
| [ ]  No, not toxic[ ]  **YES.** If yes, what are the health effects of chemical exposure (Toxicity, Body Contact, Reactivity, Acute effects, Chronic effects)?    |
| Who is exposed to the chemical/process?  |
| [ ]  Technical staff | [ ]  Teaching staff | [ ]  Emergency personnel |
| [ ]  Cleaning staff | [ ]  Students | [ ]  Administrative staff |
| [ ]  Grounds and Facilities staff | [ ]  Agricultural support staff | [ ]  Contractors |
| [ ]  Visitors | [ ]  Maintenance staff | [ ]  Other:  |
| What is the duration of the exposure (approximate contact hours per day)?  |
| What is the frequency of exposure (number of times per week)?  |
| Have any health problems been reported?  |
| Is the level of exposure reduced as much as possible?  |
| How will you control exposure to the product(s) (refer to guideline C)?  |

**C Transport considerations**

|  |
| --- |
| Are there any special transport requirements (e.g. emergency procedure, cylinder trolley, Winchester carriers, Dewar, security etc.)? [ ]  No. Go to D [ ]  **YES**.  |
| If yes, what controls are in place to minimise these hazards?  |

**D Handling considerations**

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| What are the handling risks (refer to precautionary phrases, handling requirements or special requirements (e.g. light, shock) on the SDS)?  |
| What controls will be used to minimise these hazards?  |

**E Storage considerations**

|  |
| --- |
| Are there any storage risks associated with the chemical(s) (refer to precautionary phrases on SDS)? [ ]  No [ ]  **YES** (details):  |
| Is the chemical reactive or unstable (refer to SDS): Details:  |
| Incompatibility requirements- Does the chemical need to be segregated from other chemicals?  |
| [ ]  No [ ]  **YES** Not compatible with:  |
| Does the chemical call for any special storage requirements (e.g. a chemicals cabinet, fridge, shelving type, bunding)? [ ]  No [ ]  **YES.** List details. Implement requirements: If the chemical is required to be stored in a fridge and produces flammable vapours, the fridge must be designed to eliminate an ignition source and be certified safe to store flammable liquids. |
| Are there any activities or installations in adjacent areas that could create a hazard? [ ]  No [ ]  **YES** Details:  |
| What controls will be used to minimise these hazards?  |

**F Safety control measures**

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| --- |
| **F1** Is it necessary to wear personal protective equipment as described in the product SDS? [ ]  No. Go to **F2**[ ]  **YES** specify below *Note: while the use of PPE is very important, PPE is considered to be the least effective way of avoiding exposure to chemicals - consider elimination, substitution, isolation, engineering and administrative controls and changes to your work procedure).* |
| **PPE** | **Details** | **PPE** | **Details** |
| [ ]  Gloves |  | [ ] Hair tied back |  |
| [ ]  Protective clothing |  | [ ]  Hearing protection |  |
| [ ]  Eye protection |  | [ ]  Respiratory protection |  |
| [ ]  Face protection |  | [ ]  Other |  |
| [ ]  Hygiene control |  |
| Is the personal protective equipment (PPE) available, clean and in working order? [ ]  No. You must work safely. The activity must not proceed if there is an exposure risk.[ ]  **YES**  |
| **F2** Is ventilation required as described in the product SDS (general, mechanical or cross ventilation) when undertaking this activity? [ ]  No. [ ]  **YES**. Details:  |
| Is health monitoring required?Note that chemicals requiring health monitoring should not be used. [ ]  No. [ ]  **YES**. If you answer yes, you must discuss this with your supervisor before commencing the activityDetails:  |
| Is air monitoring required?[ ]  No. [ ]  **YES**. Details:  |

**G Training**

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| --- |
| Are you satisfied that you understand the hazards associated with the storing, handling and use of this/these chemical(s)?[ ]  **YES**. Details: [ ]  No. If no, what training is required for handling, storing and disposing of this chemicals(s) before work commences? Details:  |
|  |

**H Emergency response**

| *The minimum equipment/facilities for the material are listed in the product SDS.* | Yes | No | N/A |
| --- | --- | --- | --- |
| In case of accidental body contact with the chemical (e.g. spill, splash) a first aid procedure has been established and the necessary resources (e.g. suitable first aid kit, antidotes) are readily available to execute a first aid response | [ ]  | [ ]  | [ ]  |
| Communication system: [ ]  phone-line at location [ ]  mobile phone [ ]  walkie talkies [ ]  nearby staff aware of work processesOther:  | [ ]  | [ ]  | [ ]  |
| First aid provisions:[ ]  are available and ready to use to execute planned emergency responses (e.g. ice packs, neutralising agents, antidotes, product SDS); **and**[ ]  trained staff are available to administer first aid; **and**[ ]  workers are aware of the location of first aid facilities and designated first aid officers.  | [ ]  | [ ]  | [ ]  |
| Functional safety shower/eye wash/wash basin/running water facilities are available:  | [ ]  | [ ]  | [ ]  |
| A Chemical Spill Kit is available:[ ]  The spill kit contains materials appropriate to type of chemical being used; **and**[ ]  A spill response procedure is available and personnel are trained in its use; **and**[ ]  Workers are aware of the spill kit location. | [ ]  | [ ]  | [ ]  |
| Fire safety equipment is readily available:[ ]  Fire blanket |  |  |  |
| **Small fires** [ ]  Water[ ]  Carbon dioxide ( CO2)  | [ ]  Foam [ ]  Dry powder | [ ]  | [ ]  | [ ]  |
| In case of an uncontrolled release (e.g. spill, explosion) shutdown procedures and/or an emergency response plan has been established, and the necessary resources are readily available to execute the plan | [ ]  | [ ]  | [ ]  |
| Emergency response as specified by safety data sheets: |
| Further information:  |

|  |
| --- |
| **I Waste disposal**  |
| What is the method of waste disposal: |
|  [ ]  Safe for Sewerage (details):  | [ ]  Regulated Disposal (details):  | [ ]  Safe for Sewerage after neutralisation/dilution (details):  |
| Are the required disposal resources and facilities in place? [ ]  No. If no, what control measures do you have in place to manage waste safely? [ ]  **YES**. Details:  |

**J Risk Assessment Conclusion (tick appropriate risk level box)**

Taking into consideration all of the risk factors indicated above, and regarding the range of safety controls and procedures that are already in place in your work location select the risk level for the safe completion of this task.

| **Overall Risk Level**  | **Action Required / Approval** |
| --- | --- |
| **LOW** | [ ]  | **Risks are not significant now, and not likely to increase in the future (*i.e*. risks are low).** | * Comply with all requirements of the label and current SDS.
* Comply with the standard operating procedure for the substance(s).
* Manage and document through regular planning processes.
* Person(s) using the chemicals should approve and sign the risk assessment
 |
| Selected if you are using a concentration less than which is considered hazardous or no precautions are required and it is unlikely that the use of the chemical(s) will adversely affect the health of persons at the workplace and the risk is not likely to increase in the future e.g. you are using concentrations that are too small to constitute a risk, even if controls fail; or the operation strictly conforms to the information on the label and in the SDS. |
| **Moderate** | [ ]  | **Risks are significant but effectively controlled, and could increase in the future (i.e. medium to high risk).**  | * Comply with all requirements of the label and current SDS.
* Comply with the standard operating procedure for the substance(s).
* Implement the identified controls to minimise the chances of higher exposure occurring.
* Determine and implement additional measures for regaining control if a high risk event occurs despite the precautions already taken.
* Document all risks and controls in planning documents and/or complete this Chemical Activity Risk Assessment.
* The Principal or delegated supervisor is to review and approve the risk assessment.
 |
| Selected if you are satisfied that adequate controls are in place. Select where serious health effects could result if the control measures fail or deteriorate. This usually results from the use of toxic hazardous chemicals or where the potential exposure is high. Risks, while presently adequately controlled, could increase in the future.  |
| **High** | [ ]   | **Risks significant now and not effectively controlled (high risk).** | * **The activity must not proceed**. Alternatives to undertaking the activity must be found.
* Obtain additional information or expert advice to reach a conclusion of 1 or 2
* Comply with all requirements of the current SDS.
* Comply with the standard operating procedure for the substance(s).
* Implement sufficient controls to ensure the safe use of the material.
* The Principal or delegated Supervisor is required to review and approve the revised risk assessment prior to conducting this activity.
 |
| Selected to indicate that the use of a chemical is likely to constitute a significant risk and further investigation may be necessary (e.g. there are persistent or widespread complaints of illness, discomfort, irritation or excessive odour, hazardous chemicals are splashed, control measures are broken, defective or badly maintained, for example a poorly maintained extraction system which no longer draws a hazardous chemical away from the work area, recognised safe work practices are not being observed) |
| **Extreme** | [ ]  | **Uncertain about risks.** There is not enough information, or there is uncertainty about degree or extent of exposure. DO NOT PROCEED. | * **The activity must not proceed**. Alternatives to undertaking the activity must be found.
* Obtain additional information or expert advice to reach a conclusion of 1 or 2
* In the meantime, implement work practices to ensure safety
 |
| Selected if no SDS is available, if labelling is inadequate, if the level of exposure cannot be estimated with confidence or further investigation is necessary. Obtain additional information from other sources, such as suppliers, occupational health and safety consultants and industry or trade associations.  |

**K Assessment Approval**

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| **Assessment completed by: Date:** |
| **Assessment approved by: Date:** |
| Review date:       |

Risk assessments for hazardous chemicals are to be kept for five years.

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| Monitor and Review ***(To be completed during and/or after the activity.)*** | Yes | No |
| Are the control measures still effective?       | [ ]  | [ ]  |
| Have there been any changes?       | [ ]  | [ ]  |
| Are further actions required?       | [ ]  | [ ]  |
| Details:       |
| Risk Control Plan - Improvements or additional actions |
| Actions | Responsible Person | Target Date | Review Date | Action Completed |
|       |       |       |       |       |
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