



Decanting Chemicals

Job Hazard Analysis

Facility: Science Department Approved by: Science Dept. Date Revised: June 20, 2017

Step	Description	Hazard	Controls
1	Read the label on the chemical to be decanted		
2	Locate MSDS and read precautions listed.		
3	Locate PPE as per MSDS		Personal protective equipment (PPE) should include whatever is specified on the MSDS. Generally, an apron, goggles and gloves are required.
4	Using a funnel, pour the chemical from the large container to the small container	Muscle Strain Back Injury Contact with skin Inhalation of vapours	Assess muscle strength-- Follow established procedures for lifting. Work in a fume hood if hazardous vapours are present.
5	Make sure small bottle has a proper workplace label applied, using data from the MSDS sheets		



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SAFEWORK Procedures

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Hazards Present:	Personal Protective Equipment (PPE) or Devices Required:	Additional Training Requirements:
<ul style="list-style-type: none"> • Spillage of chemical, resulting in burns to skin, damage to eyes. • Inhalation of vapours • Strain to back 	<ul style="list-style-type: none"> • Lab coat or safety apron • Safety gloves – should be non-slip. Disposable gloves are okay • Safety goggles or face shield 	<ul style="list-style-type: none"> • Lifting of heavy objects if the original container is quite large. • Chemical clean-up procedure
SAFEWORK Procedures		
<ol style="list-style-type: none"> 1.) Place the new container on a level surface at about waist height. If the MSDS suggests that the chemical is volatile or produces harmful vapours, all work must be done in an approved fume hood. 2.) Select an appropriately sized funnel for the job. Larger containers will require larger funnels. 3.) Support the funnel in a proper holder, using a ring stand and clamp or similar device. 4.) Carefully support the original container in both hands, holding it so that on tipping, the mouth of the container is a few inches about the height of the funnel. 5.) Pour the chemical slowly into the funnel, not allowing the level of the liquid to rise closer than one inch from the top of the funnel. 6.) Stop before the second container becomes too full, to allow emptying of the funnel without overflow. <p>Note: If the purpose of the transfer is to create a diluted stock solution of a corrosive chemical, always start the transfer after having placed about one-half of the required water into the receiving container.</p>		
Guidance Documents, Standards, Applicable Legislation, Other:	<i>This Safe Work Procedure will be reviewed any time the task, equipment, or materials change and at a minimum every three years.</i>	
<p>Guidance Documents:</p> <ul style="list-style-type: none"> <input type="checkbox"/> CSA Standards: <input type="checkbox"/> Manitoba Workplace Safety and Health Regulation, M.R. 217/2006: <input type="checkbox"/> 2.1 Safe Work Procedures <input type="checkbox"/> 6.1 Personal Protective Equipment <input type="checkbox"/> Other: _____ 	<p><i>(Refer to Safe Work Bulletin #247 "Recognizing MSI Risks" & Safe Work Bulletin # 253 "MSI Risk Identification and Assessment" for more information.)</i></p>	



Chemical Spills Job Hazard Analysis

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Note: The following procedures are for controlling and cleaning spills that are determined to be safe for disposal with the provided spill clean-up kits. **If the spill is determined to be of substantial danger as a result of excessive vapours or other concerns, evacuate the school and contact the fire department.**

Step	Description	Hazard	Controls
1	Remove all students from the immediate area, or from the room, if necessary	Possible contact with chemical	Students instructed to give ample clearance to the spill area.
2	Designate one student or an E.A. to obtain the appropriate spill clean-up kit – acids, caustic, flammable. Refer to the procedures provided within the spill clean-up kit.		
3	Put on goggles, gloves and apron.	Possible contact with chemical	Move away from the spill while preparing PPE.
4	Working from outside the spill area, use the dam to contain the spill	Possible contact with spilled chemical	Wear PPE. Push dam toward the spill area.
5	Apply absorbent pads to soak up spill	Contact with chemical Inhalation of vapours	Wear PPE Move away from the spill at frequent regular intervals
6	Collect absorbent pads and dam and place in the plastic bag provided with spill kit	Splashing of chemical	Keep pads and collection bag close to floor level
7	Wash spill area with plenty of water	Slippage	
8	Dispose of pads, dam and plastic bag		



Chemical Spills SAFEWORK Procedures

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Hazards Present:	Personal Protective Equipment (PPE) or Devices Required:	Additional Training Requirements:
<ul style="list-style-type: none"> • Contact of chemical with skin or clothing • Inhalation of vapours 	<ul style="list-style-type: none"> • Appropriate spill clean-up kit • Apron or lab coat • Gloves • Goggles or face shield 	
SAFEWORK Procedures		
<p>Note: The following procedures are for controlling and cleaning spills that are determined to be safe for disposal with the provided spill clean-up kits. If the spill is determined to be of substantial danger as a result of excessive vapours or other concerns, evacuate the school and contact the fire department.</p> <ol style="list-style-type: none"> 1.) Remove all students from the immediate area, or from the room, if necessary. 2.) Designate one student or an E.A. to obtain the appropriate spill clean-up kit – acids, caustic, flammable. Refer to the procedures provided within the spill clean-up kit. 3.) Put on goggles, gloves and apron. 4.) Working from outside the spill area, lay out the dam so that it completely surrounds the spill. 5.) Apply absorbent pads to soak up spill. If the area is large, use a metre stick or other reaching aid to help position the pads. Wait until the pads have soaked up the spill. 6.) Collect absorbent pads and place in the plastic bag provided with spill kit. 7.) Collect the dam and dispose of it in the plastic bag. 8.) Wash spill area with plenty of water. 9.) Dispose of pads, dam and plastic bag. 		
Guidance Documents, Standards, Applicable Legislation, Other:		<i>This Safe Work Procedure will be reviewed any time the task, equipment, or materials change and at a minimum every three years.</i>
<p>Guidance Documents:</p> <ul style="list-style-type: none"> <input type="checkbox"/> CSA Standards: <input type="checkbox"/> Manitoba Workplace Safety and Health Regulation, M.R. 217/2006: <input type="checkbox"/> 2.1 Safe Work Procedures <input type="checkbox"/> 6.1 Personal Protective Equipment <input type="checkbox"/> Other: _____ 		<p><i>(Refer to Safe Work Bulletin #247 "Recognizing MSI Risks" & Safe Work Bulletin # 253 "MSI Risk Identification and Assessment" for more information.)</i></p>



Transporting Chemicals

Job Hazard Analysis

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Step	Description	Hazard	Controls
1	Determine the weight of the container from the label, if possible. Obtain a moving dolly or cart if necessary	Accidental contact of incompatible materials.	Carry only one chemical at a time, or if using a cart, do not transport incompatible chemicals in the same trip.
2	Prepare the desired destination for the container, keeping in mind possible need for isolation from other chemicals, ventilation, etc.		
3	Lift any heavy containers carefully	Possible back strain	Lift carefully, or use a cart.
4	Glass bottles containing hazardous chemicals must be transported in an unbreakable container that is large enough to hold the contents of the bottle.	Breakage or spillage of chemicals	Use proper safety buckets and the like to hold the container.
5	Hold the container close to your body. Be certain others in the area are aware of your activity.	An unexpected door opening could knock the container from your hands.	Move slowly, pause at doorways, prepare the path you will take in advance, work at lower traffic times only.



Transporting Chemicals SAFEWORK Procedures

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Hazards Present:	Personal Protective Equipment (PPE) or Devices Required:	Additional Training Requirements:
<ul style="list-style-type: none"> • Possible back strain • Breakage or spillage of chemicals • Accidental contact of incompatible materials • An unexpected door opening could knock the container from your hands. 	<ul style="list-style-type: none"> • Lab coat or apron • Safety bucket or similar device to hold containers of hazardous materials • Lab cart for larger quantities 	<ul style="list-style-type: none"> • Lifting procedures • Consult list of incompatible chemicals.
SAFEWORK Procedures		
<ol style="list-style-type: none"> 1.) Determine the weight of the container from the label, if possible. Obtain a moving dolly or cart if necessary. If using a cart, do not transport incompatible chemicals in the same trip. 2.) Prepare the desired destination for the container, keeping in mind possible need for isolation from other chemicals, ventilation, etc. 3.) Lift any heavy containers carefully. 4.) Place glass bottles containing hazardous chemicals in an unbreakable container that is large enough to hold the contents of the bottle. 5.) Hold the container close to your body if not using a cart. 6.) Be certain others in the area are aware of your activity. Map out the route that involves the fewest doorways and obstructions. 7.) Work at lower traffic times only. 		
Guidance Documents, Standards, Applicable Legislation, Other:		<i>This Safe Work Procedure will be reviewed any time the task, equipment, or materials change and at a minimum every three years.</i>
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