



Managing Hazardous/Chemical Materials

Administrative Procedure 6.045

Board Governance Policy Cross Reference: 1,2,3,4,12,13,17

Legal Reference: Public Schools Act, Workplace Safety and Health Act and Manitoba Labour Code

Date Adopted: June, 2012

Date Amended:

Date Reviewed: February, 2019; November, 2021

The activities with the School District of Mystery Lake include the use, storage and disposal of chemicals. This administrative procedure is designed to identify, eliminate and/or control chemical hazards and applies to all staff that may be required to handle hazardous chemicals.

Definitions:

W.H.M.I.S.:

The **Workplace Hazardous Material Information System** is a federal legislation that is intended to protect employee health & safety by identifying and addressing *risks* associated with *hazardous/controlled materials*.

Risk:

“Risk” is the likelihood that a hazardous material will cause harm to people, property or the environment. There are two factors that can increase or decrease risk:

- 1) the seriousness of the hazard
- 2) how much exposure there is to the hazard.

It is commonly accepted that Risk = hazard X exposure.

Hazard:

“Hazard” is the harm that something can cause. The harm may be physical injury, damage to health, property and or the environment. Hazard is an intrinsic or “built-in” characteristic. In W.H.M.I.S. we talk about hazardous materials; materials that can cause harm.

MSDS:

A **Materials Safety Data Sheet** is created by the supplier and contains specific information about the product and its ingredients. This information can be used to reduce the risk to the employee through employer preparation and provide product knowledge training. W.H.M.I.S. requires the MSDS contain certain information and all sections must be completed. While all MSDS sheets must have the same classes of information they may have different formats.

MSDS Binders:

To ensure compliance with the Manitoba Workplace Safety and Health Regulation at least one hard copy of the MSDS binder must be maintained in each workplace. The MSDS binder must be located in a place that is accessible to all employees as well as readily available to emergency personnel if required.

MSDS binders will be maintained in the following locations (as defined by each school):

- One master set in each administrative office
- One set specific to the chemicals/hazardous products in each science/lab prep classroom
- One set specific to the chemicals/hazardous products in each custodian storage room
- One set specific to the chemicals/hazardous product in each Industrial Arts/Woodworking and or Power Mechanics Shop

The Safety Officer will email a Revision Notification Report to each applicable workplace Supervisor and General Office Clerical Support staff on a weekly basis i.e. every Monday. The Revision Notification Report is used to identify when a MSDS is available for a new item; when an existing MSDS has expired and a new sheet is now available and or when an item has been deleted and the MSDS must be archived.

The General Office Clerical Support staff will print two copies of the new/revised MSDS or notice (e.g. for a deleted item). Clerical Support staff will update the master MSDS binder retained in the General Office. The second copy of the revision notice is to be forwarded to the applicable custodian, teacher, mechanic etc.

Obsolete MSDS copies must be removed from the applicable binders; the new MSDS copy is to be filed in the binder.

All obsolete MSDS hard copies must be returned to the Safety Officer's attention within five (5) business days.

The Safety Officer will match the returned MSDS to the pending notification list and then file as complete.

Obsolete sheets will be retained by the Safety Officer (by school, by division for thirty years).

Procedures to Control the Number of Hazardous Materials in the Workplace:**Custodian Hazardous Products:**

An approved product list has been reviewed and distributed to all Head Custodians; only the products on the approved list are to be purchased.

The supplier must provide all products with a Workplace Label and a MSDS. Deliveries are not to be accepted if this information is not provided.

Science Hazardous Products:

Scholar Chemistry (merging with Columbus) is the only vendor of choice for ordering chemicals/hazardous materials required by the Science Classrooms/Labs. Prior to ordering the following documents must be checked:

1. ***Excessive Risk Chemicals - Risk Exceeds Educational Utility:*** under no circumstances should any product on this list be ordered/carried in the science classrooms/labs.
2. ***High Risk Chemicals - Only Allow Very Limited Amounts in Storage:*** only appropriate for advanced-level High School Classes. Order quantity must be restricted to the smallest container size available for the product requested.
3. ***Under no circumstances is an unauthorized hazardous material (WHMIS controlled product) to be brought onto school property and into the school via a student, supplier and or any other third party. It is the responsibility of all Supervisors (Principal's and Teacher's) to manage this policy.***

Excessive Risk Chemicals – Risk Exceeds Educational Utility

Under no circumstances shall the following chemicals be permitted in a school:

Chemical:	Chemical:	Chemical :
Acetic Anhydride	Dichlorobenzene	Nitrogen Triiodide
Acetyl Chloride	Dichloroethane	Nitroglycerin
Acrylamide	Dinitro Phenol	Osmium Tetraoxide (Osmic Acid)
Acrylonitrile	Dinitrophenyl Hydrazine S	Pentachlorophenol
Adipoyl Chloride	Dioxane	Perchloric Acid
Aluminum Chloride, anhydrous	Ether, Anhydrous	Phosphorous Pentasulfide
Ammonia, gas	Ether, Ethyl	Phosphorus Pentoxide
Ammonium Bifluoride	Ether, Isopropyl	Phosphorus, Red
Ammonium Bichromate	Ethyl, Ether	Phosphorus, Yellow or White
Ammonium Chromate	Ethylene Dichloride	Picric Acid, Trinitrophenol
Ammonium Dichromate	Ethyl Nitrate	Potassium Cyanide
Ammonium Perchlorate	Ethyleneimine	Potassium Perchlorate
Ammonium Sulfide	Ferrous Sulfide	Potassium Sulfide
Aniline	Formaldehyde (Formalin)	Potassium, metal
Aniline Hydrochloride	Gunpowder	Pyridine Flammable
Antimony Oxide	Hydrazine	Selenium
Antimony Powder	Hydriodic Acid	Silver Oxide
Antimony Trichloride	Hydrobromic Acid	Silver Cyanide
Arsenic Compounds	Hydrofluoric Acid	Sodium Metal Lump
Asbestos, Friable	Hydrogen	Sodium Arsenate
Azide Compounds	Hydrogen Sulfide, gas	Sodium Arsenite
Barium Chromate	Immersion Oil (old)	Sodium Azide
Benzene	Isopropyl Ether	Sodium Borohydride
Benzoyl Peroxide	Lithium Aluminum Hydride	Sodium Cyanide
Beryllium and it's compounds	Lithium Metal	Sodium Fluoride (Bifluoride)
Bromine	Mercaptoethanol	Sodium Fluoroacetate
Cadmium compounds	Mercury Compounds	Sodium Peroxide
Calcium Fluoride (Fluorspar)	Mercury, liquid	Sodium Sulfide
Carbon Disulfide	Methylene Chloride	Strontium
Carbon Tetrachloride	Methyl Ethyl Ketone	Testosterone HCl
Chloral Hydrate	Methyl Iodide (Iodomethane)	Tetrahydrofuran
Chlorine Poison Gas	Methyl Isocyanate	Thioacetamide
Chlorobenzene	Methyl Isopropyl Ketone	Thionyl Chloride
Chloroform	Methyl Methacrylate	Thiourea
Chlorosulfonic Acid	Naphthylamine, a-	Titanium Trichloride
Chromic Acid	Nickel Oxide	Triethylamine Flammable
Collodion	Nicotine	Trinitrobenzene
Cuprous Cyanide	Nitrilotriacetic Acid	Trinitrophenol
Cyanogen Bromide	Nitrobenzene	Trinitrotoluene
Cyclohexene	Nitrocellulose	Uranium/Uranyl

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**High Risk Chemicals – ONLY Allow Very Limited Amounts in Storage
Only appropriate for Advanced-Level High School Science Classes**

Must be Pre-Approved by Safety Officer Prior to Ordering

Chemical:	Chemical:
Acetamide	
Ammonium Nitrate	
Barium Peroxide	
Butyric Acid	
Cadmium Sulfide	
Calcium Carbide	
Chromium Trioxide	
Ethidium Bromide	
Hexamethylenediamine	
Hexanediamine 1-6	
Hydrogen peroxide >29%	
Lead Components	
Lead Nitrate	
Magnesium, powder	
Phenol	
Potassium Chlorate	
Potassium Chromate	
Potassium Dichromate	
Radioactive Products	
Sebacoyl Chloride	
Silver Compounds	
Sodium Chlorate	
Sodium Chromate	
Sodium Dichromate	
Sodium, metal, small chips	
Strontium Nitrate Oxidizer	
Thermite	
Toluene	
Wood's Metal	
Xylene	

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Power Mechanic Shops & Industrial Arts/Woodworking Shops:

An approved product list has been reviewed and distributed; only the products on the list are to be purchased.

The supplier must provide all products with a Workplace Label and a MSDS. Deliveries are not to be accepted if this information is not provided.

House Hold Products:

Purchasing a product that is packaged for household use is not permitted. These types of products would be non food type items such as “over the counter” scented room aerosols, bleach & dish detergents. The Safety Officer is to be contacted directly if clarification is required regarding a specific product.

Inventory Audits

To ensure on-going data integrity of both the WellNet data base and the MSDS binder two inventory audits will be conducted annually in each workplace for each site book:

1. A complete inventory audit of the workplace conducted by the workplace:

- the Safety Officer will issue an Inventory Check List (generated from WellNet) by site book to each workplace.
- each workplace supervisor is responsible to review the lists for accuracy i.e. noting any required omissions and or deletions.
- the Workplace Inventory Check Lists must be returned to the Safety Officer by the defined return date (normally 30 days from issue date).
- the Safety Officer will use the lists to update the WellNet site books.
- all discrepancies will be reviewed with the workplace supervisor

2. A complete random inventory audit conducted by the Safety Officer:

- the Safety Officer will complete a random audit for each site book in each workplace i.e. an actual physical count compared to the WellNet site book and on-site MSDS binder.
- discrepancies will be reviewed with the workplace supervisors.
- WellNet and the MSDS binders will be updated accordingly.

Disposal of Hazardous Materials:

- The MSDS must always be referred to as the primary source of information regarding disposal of product.
- The supervisor/worker is responsible for ensuring that the product is properly labeled, properly packaged for transportation and is accompanied with an MSDS.
- The Safety Officer must be notified via email of product being disposed of internally to ensure the MSDS for the disposed product is archived/deleted in the MSDS binder.

- For any hazardous material which cannot be disposed of at the workplace, supervisor/workers must complete a Hazardous Material Disposal Request Form (sample attached).
- The Hazardous Material Disposal Request Form must be signed by the supervisor of the workplace & sent to the Safety Officer for approval & processing.

Chemical Spill Response:

Trained individuals with the knowledge of the spilled chemical's hazards and the precautions that must be taken should only handle chemical spills.

<u>Hazards Present:</u>	<u>Personal Protective Equipment (PPE) or Devices Required:</u>	<u>Additional Training Requirements:</u>
Hazards as per MSDS. Spillage of chemicals, resulting in burns to skin, damage to eyes. Inhalation of vapours	PPE as per MSDS: Lab Coat or Apron (Chemical Resistant) Chemical Resistant Safety gloves or Non slip, disposable gloves (based on chemical) Chemical Resistant Face Shield Safety Goggles Chemical Spill Kit, Sand, Kitty Litter.	WHMIS Chemical Clean Up Use of Respirators: Maintenance

SAFework PROCEDURE:

1. Remove all students from the immediate area or from the classroom if necessary.
2. Teacher/Administrator must determine if:
 - a. Teacher can manage the clean-up process i.e. small spill or
 - b. Call for clean-up from Maintenance Crew (equipped with Respirators) or
 - c. Call 911 for major spills
 - d. Safety Officer must be contacted immediately for all situations involving Maintenance Crew Clean Up & 911 Calls.
3. All spills must be dealt with individually and disposed of completely without delay i.e. Do not keep a general spill bin, dispose of each individual spill as they occur.
4. Have specific MSDS readily available, read all precautions listed.
5. Locate & use PPE as per MSDS.
6. Ensure Prep Labs are stocked with a pail of sand and a pail of kitty litter.
7. Locate & use Spill Clean Up Kit (if applicable)
 - a. Work from outside the spill area.
 - b. Lay out dam/sock so that it completely surrounds the spill.
 - c. Apply applicable absorbent from kit to soak up spill.
 - d. Allow time for absorbent to soak up maximum amount of spill.
 - e. Collect absorbent & place in plastic bag (provided with spill kit)
 - f. Dispose of sock in plastic bag.
 - g. Wash spill area with applicable solution.
 - h. Dispose of plastic bags via maintenance department. Do not leave with other garbage for end of day pick up.