



Managing Hazardous and Chemical Materials

Administrative Procedure 6.45

6.0 Facilities

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*

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The activities with Evergreen School Division 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 **W**orkplace **H**azardous **M**aterial Information **S**ystem is a federal legislation that is intended to protect employee health & safety by identifying and addressing *risks* associated with *hazardous/controlled* materials.

Risk: is the likelihood that a hazardous material will cause harm to people, property or the environment. There are two (2) 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: 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.

SDS: A **S**afety **D**ata **S**heet 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 SDS contain certain information and all sections must be completed. While all SDS sheets must have the same classes of information they may have different formats.

Procedures for Managing the SDS:

Safety Data Sheet Management will be controlled through the use of an on-line SDS Management System i.e. SDSonline and the use of a hard copy binder(s) that will be available in each workplace.

The Safety Officer will coordinate W.H.M.I.S training sessions annually. W.H.M.I.S training material will be available in each workplace to support the training requirements of new hires throughout the year.

SDSonline On Line SDS Management Service:

SDSonline provides an online service to manage the Safety Data Sheets (SDS) for all hazardous materials currently in each workplace. From this site all employees will have access to view or print a SDS for hazardous materials.

The Safety Officer will train each workplace supervisor (e.g. caretaker A, teacher, principal, administrative support staff & mechanics) on the SDSonline SDS Management System.

The Safety Officer will provide each workplace with additional training material to support the training requirements of new hires.

The workplace supervisor will be responsible for training all employees in their workplace on how to access and print a SDS from the SDSonline site.

SDSonline will provide the Safety Officer with automatic SDS updates and notification on retrieving new SDSs and the updating of any SDS that is due to expire. Retention of archived SDSs will be managed by the Safety Officer.

SDS Binders:

To ensure compliance with the Manitoba Workplace Safety and Health Regulation at least one (1) hard copy of the SDS binder must be maintained in each workplace. The SDS binder must be located in a place that is accessible to all employees as well as readily available to emergency personnel if required.

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

- One (1) master set in each administrative office
- One (1) set specific to the chemicals/hazardous products in each science/lab prep classroom
- One (1) set specific to the chemicals/hazardous products in each custodian storage room
- One (1) set specific to the chemicals /hazardous products in each bus garage

- One (1) 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 Caretaker A staff on a weekly basis i.e. every Monday. The Revision Notification Report is used to identify when a SDS is available for a new item; when an existing SDS has expired and a new sheet is now available and or when an item has been deleted and the SDS must be archived.

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

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

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

The Safety Officer will match the returned SDS 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).

Workplace Labels:

SDSonline also provides the capability of generating a Workplace Label for new product. The Safety Officer will generate the request to create a label in SDSonline and then notify the workplace via email that a label is available for printing.

Workplace supervisors can also request the Safety Officer to prepare a workplace label for any hazardous material in their workplace (via email).

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 Caretaker A's; only the products on the approved list are to be purchased.

The supplier must provide all products with a Workplace Label and a SDS. 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	Potassium Chlorate
Ammonium Nitrate	Potassium Chromate
Barium Peroxide	Potassium Dichromate
Butyric Acid	Radioactive Products
Cadmium Sulfide	Sebacoyl Chloride
Calcium Carbide	Silver Compounds
Chromium Trioxide	Sodium Chlorate
Ethidium Bromide	Sodium Chromate
Hexamethylenediamine	Sodium Dichromate
Hexanediamine 1-6	Sodium, metal, small chips
Hydrogen peroxide >29%	Strontium Nitrate Oxidizer
Lead Components	Thermite
Lead Nitrate	Toluene
Magnesium, powder	Wood's Metal
Phenol	Xylene

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Bus Garages, 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 SDS. Deliveries are not to be accepted if this information is not provided.

Purchase of a Hazardous Material that is NOT in your SDSonline Site Book:
Any employee requesting to purchase a hazardous material that is not currently carried in their specific SDSonline site book must fill out a **Hazardous Material Purchase Request Form 6.45A**. The form must be submitted to their workplace supervisor for approval.

If approved, the supervisor (e.g. Principal) must:

1. sign off the **Hazardous Material Purchase Request Form 6.45A**
2. fax/scan the completed form to the Safety Officer for authorization

The Safety Officer will process the request; update the SDSonline site book and email the workplace when the new SDS & workplace label is available for printing (as required).

An email will be sent to the workplace supervisor to confirm approval and or rejection of the original request.

The reference to hazardous material for the purpose of this requirement will be liquids, gases, solids, powders, pastes or gels that are not food items or personal hygiene products.

Household 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 and 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 SDSonline data base and the SDS binder two (2) 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 SDSonline) 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 SDSonline 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 SDSonline site book and on-site SDS binder.
- discrepancies will be reviewed with the workplace supervisors.
- SDSonline and the SDS binders will be updated accordingly.

Disposal of Hazardous Materials:

- The SDS 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 SDS.
- The Safety Officer must be notified via email of product being disposed of internally to ensure the SDS for the disposed product is archived/deleted in the SDSonline site book.
- For any hazardous material which cannot be disposed of at the workplace, supervisor/ workers must complete a **Hazardous Material Disposal Request Form 6.45A**.
- The **Hazardous Material Disposal Request Form 6.45A** must be signed by the supervisor of the workplace & sent to the Safety Officer for approval & processing.
- The Safety Officer will arrange for disposal, advise the workplace and update the SDSonline site books accordingly.

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>
<p>Hazards as per SDS.</p> <p>Spillage of chemicals, resulting in burns to skin, damage to eyes.</p> <p>Inhalation of vapours</p>	<p>PPE as per SDS:</p> <ul style="list-style-type: none"> • Lab Coat or Apron (Chemical Resistant) • Chemical Resistant Safety gloves or Nonslip, disposable gloves (based on chemical) • Chemical Resistant Face Shield • Safety Goggles • Chemical Spill Kit, Sand, Kitty Litter 	<p>WHMIS</p> <p>Chemical Clean Up</p> <p>Use of Respirators: Maintenance</p>

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 SDS readily available, read all precautions listed.
5. Locate & use PPE as per SDS.
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.