

**Part 1 General**

**1.1 RELATED SECTIONS**

- .1 Division 1

**1.2 REFERENCES**

- .1 Definitions:
  - .1 Dangerous Goods: product, substance, or organism specifically listed or meets hazard criteria established in Transportation of Dangerous Goods Regulations.
  - .2 Hazardous Material: product, substance, or organism used for its original purpose; and is either dangerous goods or material that will cause adverse impact to environment or adversely affect health of persons, animals, or plant life when released into the environment.
  - .3 Hazardous Waste: hazardous material no longer used for its original purpose and that is intended for recycling, treatment or disposal.
- .2 Reference Standards:
  - .1 GS-11-2008, 2nd Edition, Paints and Coatings.
  - .2 GS-36-00, Commercial Adhesives.
  - .3 Health Canada / Workplace Hazardous Materials Information System (WHMIS)
    - .1 Material Safety Data Sheets (MSDS).
  - .4 National Research Council Canada Institute for Research in Construction (NRC-IRC)
    - .1 National Fire Code of Canada-2005.
  - .5 South Coast Air Quality Management District (SCAQMD), California State, Regulation XI. Source Specific Standards
    - .1 SCAQMD Rule 1113-A2007, Architectural Coatings.
    - .2 SCAQMD Rule 1168-A2005, Adhesive and Sealant Applications.

**1.3 DESIGNATED SUBSTANCES REPORTS**

- .1 Copies of the building's Designated Substances Reports will be made available by the Departmental Representative.

**1.4 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Submit in accordance with Division 1.
- .2 Product Data:
  - .1 Submit manufacturer's instructions, printed product literature and data sheets for hazardous materials and include product characteristics, performance criteria, physical size, finish and limitations.

- .2 Submit two copies of WHMIS MSDS in accordance with Division 1 to Departmental Representative for each hazardous material required prior to bringing hazardous material on site.
- .3 Submit hazardous materials management plan to Departmental Representative that identifies hazardous materials, usage, location, personal protective equipment requirements, and disposal arrangements.
- .4 Low-Emitting Materials: submit listing of adhesives and sealants and paints and coatings used in building; comply with VOC and chemical component limits or restrictions requirements.

## 1.5 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Transport hazardous materials and wastes in accordance with Transportation of Dangerous Goods Act, Transportation of Dangerous Goods Regulations, and applicable provincial regulations.
- .4 When exporting hazardous waste to another country, ensure compliance with Export and Import of Hazardous Waste and Hazardous Recyclable Materials Regulations.
- .5 Storage and Handling Requirements:
  - .1 Co-ordinate storage of hazardous materials with Departmental Representative and abide by internal requirements for labelling and storage of materials and wastes.
  - .2 Store and handle hazardous materials and wastes in accordance with applicable federal and provincial laws, regulations, codes, and guidelines.
  - .3 Store and handle flammable and combustible materials in accordance with National Fire Code of Canada requirements.
  - .4 Keep no more than 45 litres of flammable and combustible liquids such as gasoline, kerosene and naphtha for ready use.
  - .5 Store flammable and combustible liquids in approved safety cans bearing the Underwriters' Laboratory of Canada or Factory Mutual seal of approval.
  - .6 Storage of quantities of flammable and combustible liquids exceeding 45 litres for work purposes requires the written approval of the Departmental Representative.
  - .7 Transfer of flammable and combustible liquids is prohibited within buildings.
  - .8 Transfer flammable and combustible liquids away from open flames or heat-producing devices.
  - .9 Solvents or cleaning agents must be non-flammable or have flash point above 38 degrees C.
  - .10 Store flammable and combustible waste liquids for disposal in approved containers located in safe, ventilated area. Keep quantities to minimum.
  - .11 Observe smoking regulations, smoking is prohibited in areas where hazardous materials are stored, used, or handled.

- .12 Storage requirements for quantities of hazardous materials and wastes in excess of 5 kg for solids, and 5 litres for liquids:
    - .1 Store hazardous materials and wastes in closed and sealed containers.
    - .2 Label containers of hazardous materials and wastes in accordance with WHMIS.
    - .3 Store hazardous materials and wastes in containers compatible with that material or waste.
    - .4 Segregate incompatible materials and wastes.
    - .5 Ensure that different hazardous materials or hazardous wastes are stored in separate containers.
    - .6 Store hazardous materials and wastes in secure storage area with controlled access.
    - .7 Maintain clear egress from storage area.
    - .8 Store hazardous materials and wastes in location that will prevent them from spilling into environment.
    - .9 Have appropriate emergency spill response equipment available near storage area, including personal protective equipment.
    - .10 Maintain inventory of hazardous materials and wastes, including product name, quantity, and date when storage began.
  - .6 When hazardous waste is generated on site:
    - .1 Coordinate transportation and disposal with Departmental Representative.
    - .2 Comply with applicable federal, provincial and municipal laws and regulations for generators of hazardous waste.
    - .3 Use licensed carrier authorized by provincial authorities to accept subject material.
    - .4 Before shipping material obtain written notice from intended hazardous waste treatment or disposal facility it will accept material and it is licensed to accept this material.
    - .5 Label containers with legible, visible safety marks as prescribed by federal and provincial regulations.
    - .6 Only trained personnel handle, offer for transport, or transport dangerous goods.
    - .7 Provide photocopy of shipping documents and waste manifests to Departmental Representative.
    - .8 Track receipt of completed manifest from consignee after shipping dangerous goods. Provide photocopy of completed manifest to Departmental Representative.
  - .7 Report discharge, emission, or escape of hazardous materials immediately to Departmental Representative and appropriate provincial authority. Take reasonable measures to control release.
  - .8 Ensure personnel have been trained in accordance with Workplace Hazardous Materials Information System (WHMIS) requirements.
  - .9 Report spills or accidents immediately to Departmental Representative. Submit a written spill report to Departmental Representative within 24 hours of incident.
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- .10 Packaging Waste Management: remove for reuse and return by manufacturer of pallets, crates, padding, and packaging materials in accordance with local regulations.

## **Part 2 PRODUCTS**

### **2.1 MATERIALS**

- .1 Description:
  - .1 Bring on site only quantities hazardous material required to perform Work.
  - .2 Maintain MSDS in proximity to where materials are being used. Communicate this location to personnel who may have contact with hazardous materials.
- .2 Sustainability Characteristics:
  - .1 Adhesives and Sealants in accordance with Section 07 92 00 - Joint Sealants.
  - .2 Adhesives and Sealants: maximum VOC limit to SCAQMD Rule 1168.
  - .3 Primers, Paints and Coatings in accordance with manufacturer's recommendations for surface conditions and Section 09 91 23 - Interior Painting, and 09 91 23.01 - Interior Re-Painting.
    - .1 Primer: maximum VOC limit to SCAQMD Rule 1113.
    - .2 Paints: maximum VOC limit to SCAQMD Rule 1113.
    - .3 Coatings: maximum VOC limit to SCAQMD Rule 1113.

## **Part 3 EXECUTION**

### **3.1 CLEANING**

- .1 Progress Cleaning: clean in accordance with Division 1. Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Division 1.
- .3 Waste Management: separate waste materials for reuse and recycling in accordance with local regulations.
  - .1 Dispose of hazardous waste materials in accordance with applicable federal and provincial acts, regulations, and guidelines.
  - .2 Recycle hazardous wastes for which there is approved, cost effective recycling process available.
  - .3 Send hazardous wastes to authorized hazardous waste disposal or treatment facilities.
  - .4 Burning, diluting, or mixing hazardous wastes for purpose of disposal is prohibited.
  - .5 Disposal of hazardous materials in waterways, storm or sanitary sewers, or in municipal solid waste landfills is prohibited.
  - .6 Dispose of hazardous wastes in timely fashion in accordance with applicable provincial regulations.
  - .7 Minimize generation of hazardous waste to maximum extent practicable. Take necessary precautions to avoid mixing clean and contaminated wastes.

- .8 Identify and evaluate recycling and reclamation options as alternatives to land disposal, such as:
  - .1 Hazardous wastes recycled in manner constituting disposal.
  - .2 Hazardous waste burned for energy recovery.
  - .3 Lead-acid battery recycling.
  - .4 Hazardous wastes with economically recoverable precious metals.

**END OF SECTION**