

PART 1 - GENERAL

1.1 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 Canada Green Building Council (CaGBC)
      - .1 LEED Canada-NC-2009, LEED (Leadership in Energy and Environmental Design): Green Building Rating System Reference Package For New Construction and Major Renovations.
    - .2 Canadian Environmental Protection Act, 1999 (CEPA 1999)
      - .1 Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations (SOR/2005-149).
    - .3 Department of Justice Canada (Jus)
      - .1 Transportation of Dangerous Goods Act, 1992 (TDG Act) 1992, (c. 34).
      - .2 Transportation of Dangerous Goods Regulations (T-19.01-SOR/2001-286).
    - .4 Green Seal Environmental Standards (GS)
      - .1 GS-11-2008, 2nd Edition, Paints and Coatings.
      - .2 GS-36-00, Commercial Adhesives.
    - .5 Health Canada / Workplace Hazardous Materials Information System (WHMIS)
      - .1 Material Safety Data Sheets (MSDS).
    - .6 National Research Council Canada Institute for Research in Construction (NRC-IRC)
      - .1 National Fire Code of Canada-2005.
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| 1.1 REFERENCES<br>(Cont'd)              | .3 | South Coast Air Quality Management District (SCAQMD), California State, Regulation XI. Source Specific Standards<br>.1 SCAQMD Rule 1113-A2007, Architectural Coatings.<br>.2 SCAQMD Rule 1168-A2005, Adhesive and Sealant Applications.  |
| 1.2 ACTION AND INFORMATIONAL SUBMITTALS | .1 | Submit in accordance with Section 01 33 00 - Submittal Procedures.   |
|   | .2 | Product Data:<br>.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.<br>.2 Submit electronic copies of WHMIS MSDS in accordance with Section 01 35 29.06 - Health and Safety Requirements to Departmental Representative for each hazardous material required prior to bringing hazardous material on site.<br>.3 Submit hazardous materials management plan to Departmental Representative that identifies hazardous materials, usage, location, personal protective equipment requirements, and disposal arrangements. |
|   | .3 | Sustainable Design Submittals:<br>.1 LEED Canada-NC-2009 -Submittals: in accordance with Section 01 35 21 - LEED Requirements.   |
| 1.3 DELIVERY, STORAGE AND HANDLING      | .1 | Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and 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  |
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- 1.3 DELIVERY,  
STORAGE AND  
HANDLING  
(Cont'd)
- .3 (Cont'd)  
Goods Act, Transportation of Dangerous Goods Regulations, and applicable provincial regulations.
- .4 Storage and Handling Requirements:
- .1 Co-ordinate storage of hazardous materials with Departmental Representative DCC Representative Consultant 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.
    - .1 Store flammable and combustible liquids in approved safety cans bearing the Underwriters' Laboratory of Canada or Factory Mutual seal of approval.
    - .2 Storage of quantities of flammable and combustible liquids exceeding 45 litres for work purposes requires the written approval of the Departmental Representative DCC Representative Consultant.
  - .5 Transfer of flammable and combustible liquids is prohibited within buildings.
  - .6 Transfer flammable and combustible liquids away from open flames or heat-producing devices.
  - .7 Solvents or cleaning agents must be non-flammable or have flash point above 38 degrees C.
  - .8 Store flammable and combustible waste liquids for disposal in approved containers located in safe, ventilated area. Keep quantities to minimum.
  - .9 Observe smoking regulations. At a minimum, smoking is prohibited in areas where hazardous materials are stored, used, or handled.
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1.3 DELIVERY,  
STORAGE AND  
HANDLING  
(Cont'd)

- .4 Storage and Handling Requirements: (Cont'd)
- .10 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.
    - .11 When hazardous waste is generated on site:
      - .1 Co-ordinate 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

1.3 DELIVERY,  
STORAGE AND  
HANDLING  
(Cont'd)

- .4 Storage and Handling Requirements: (Cont'd)
  - .10 (Cont'd)
  - .11 (Cont'd)
    - .4 (Cont'd)  
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.
    - .9 Report discharge, emission, or escape of hazardous materials immediately to Departmental Representative and appropriate provincial authority. Take reasonable measures to control release.
    - .12 Ensure personnel have been trained in accordance with Workplace Hazardous Materials Information System (WHMIS) requirements.
    - .13 Report spills or accidents immediately to Departmental Representative. Submit a written spill report to Departmental Representative within 24 hours of incident.
- .5 Develop Construction Waste Management Plan related to Work of this Section and in accordance with Section 01 35 21 - LEED Requirements.
- .6 Packaging Waste Management: remove for reuse and return by manufacturer of pallets, crates, padding, and packaging materials as specified in Construction Waste Management Plan in accordance with Section 01 74 21 - Construction/Demolition Waste Management and

1.3 DELIVERY,  
STORAGE AND  
HANDLING  
(Cont'd)

.6 Packaging Waste Management: (Cont'd)  
Disposal and Section 01 35 21 - LEED  
Requirements.

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.  
.3 Sustainability Characteristics:  
.1 Adhesives and Sealants in  
accordance with Section 07 92 00 - Joint  
Sealants and 01 35 21 - LEED  
Requirements.  
.1 Adhesives and Sealants: to  
SCAQMD Rule 1168.  
.2 Primers, Paints and Coatings: in  
accordance with manufacturer's  
recommendations for surface conditions  
and Section 09 91 00 - Painting and  
01 35 21 - LEED Requirements.  
.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  
Section 01 74 11 - Cleaning.  
.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 Section 01 74 11  
- Cleaning.

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3.1 CLEANING  
(Cont'd)

- .3 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal and 01 35 21 - LEED Requirements.
- .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.