

APPENDIX B

Standard Operating Procedure (SOP) for Safety Data Sheet (SDS)

Scope: This SOP has been developed for any Calvin College personnel or on-site contractor who will be involved in ordering and receiving products that come with SDS's. This process should be followed according to the SOP and result in an efficient manner for cataloging by department. All department hazard communications representatives, as well as, the EH&S officer must oversee and assist in the process. The SOP is as follows:

When ordering a new product, request that the vendor include the SDS with the order.

- 1.0 When receiving any new product from a vendor, locate and remove the SDS from contents.
 - 1.1 The time span of use for each product needs to be recorded.
Date stamp the SDS with the date of arrival at Calvin College.
- 2.0 Cross-reference the revision date on the SDS (located on front page) with the current revision date listed on the SDS in MSDS online.
- 3.0 If both dates are the same, discard the new duplicate SDS.
- 4.0 If the SDS is for a new product or has a new revision date for an existing product, the following must happen:
 - 4.1 Send the SDS to EHS. Indicate what department (e.g. Art Department) and a contact person associated with the SDS. EHS will add the SDS to the departments binder on MSDS online.
 - 4.2 Update the chemical inventory list (catalog spreadsheet) to reflect the new SDS addition.
 - 4.3 List the new product or newly revised product on the MIOSHA posting. (Post a copy of the new SDS at or on the appropriate MIOSHA posting center for each department, if desired). Consult department hazard communications representatives for posting location
 - 4.4 The listing and posting must occur within five days of receipt and stay posted for ten days.
- 5.0 It will be the responsibility of the department hazard communications representatives or department director or chairperson to manage the SDS maintenance catalog and chemical inventory list.
- 6.0 The EHS officer will periodically inspect the department catalog's for current content and organization. If any problems arise, the EHS officer should be contacted.
- 7.0 Master copies of SDS catalog's for each department will be kept by the EHS officer. All master copies should match department copies.

APPENDIX D: Sections of the SDS

Section 1. Identification of the substance or mixture and of the supplier

- GHS Product Identifier
- Other means of identification
- Recommended use of the chemical and restrictions on use
- Supplier's details (including name, address, phone number etc.)
- Emergency phone number

Section 2. Hazard identification

- GHS classification of the substance/mixture and any national or regional information
- GHS label elements, including precautionary statements. (Hazard symbols may be provided as a graphical reproduction of the symbols in the black and white or the name of the symbol e.g. "flame", "skull and crossbones");
- Other hazards which do not result in the classification (e.g. "dust explosion hazard") or are not covered by the GHS.

Section 3. Composition/information on ingredients

Substance

- Chemical identity;
- Common name, synonyms, etc.;
- CAS number and other unique identifiers
- Impurities and stabilizing additives which are themselves classified and which contribute to the classification of a substance.

Mixture

- The chemical identity and concentration or concentration ranges of all ingredients which are hazardous within the meaning of the GHS and are present above their cut-off levels.

NOTE: For information on ingredients, the competent authority rules for CBI take priority over the rules for product identification.

Section 4. First aid measures

- Description of necessary measures, subdivided according to the different routes of exposure, i.e. inhalation, skin and eye contact and ingestion;
- Most important symptoms/effects, acute and delayed.
- Indication of immediate medical attention and special treatment needed, if necessary.

Section 5. Fire-fighting measures

- Suitable (and unsuitable) extinguishing media.
- Specific hazards arising from the chemical (e.g. nature of any hazardous combustion products).
- Special protective equipment and precautions for fire-fighters.

Section 6. Accidental release measures

- Personal precautions, protective equipment and emergency procedures.
- Environmental precautions.
- Methods and materials for containment and cleaning up.

Section 7. Handling and storage

- Precautions for safe handling.
- Conditions for safe storage, including any incompatibilities.

Section 8. Exposure controls/personal protection

- Control parameters e.g. occupational exposure limit values or biological limit values.
- Appropriate engineering controls.
- Individual protection measures, such as personal protective equipment.

Section 9. Physical and chemical properties

- Appearance (physical state, color etc.);
- Odor;
- Odor threshold;
- pH
- Melting point/freezing point;
- Initial boiling point and boiling range;
- Flash point;
- Evaporation rate;
- Flammability (solid, gas);
- Upper/lower flammability or explosive limits;
- Vapor pressure;
- Vapor density;
- Relative density;
- Solubility(ies);
- Partition coefficient: n-octanol/water;
- Auto-ignition temperature;
- Decomposition temperature;
- Viscosity.

Section 10. Stability and reactivity

- Reactivity;
- Chemical stability;
- Possibility of hazardous reactions;
- Conditions to avoid (e.g. static discharge, shock or vibration);
- Incompatible materials;
- Hazardous decomposition products

Section 11. Toxicological information

Concise but complete and comprehensible description of the various toxicological (health) effects and the available data used to identify those effects, including:

- Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact);
- Symptoms related to the physical, chemical and toxicological characteristics;
- Delayed and immediate effects and also chronic effects from short and long term exposure;
- Numerical measures of toxicity (such as acute toxicity estimates).

Section 12. Ecological information

- Ecotoxicity (aquatic and terrestrial, where available);
- Persistence and degradability;
- Bioaccumulative potential;
- Mobility in the soil;
- Other adverse effects.

Section 13. Disposal information

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging.

Section 14. Transport information

- UN number;
- UN proper shipping name;
- Transport hazard class(es);
- Packing group, if applicable;
- Environmental hazards (e.g.: Marine pollutant (Yes/No));
- Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code);
- Special precautions which a user needs to be aware of, or needs to comply with, in connection with the transport or conveyance within or outside their premises.

15. Regulatory information

Safety, health and environmental regulations specific for the product in question.

16. Other information including information on preparation and revision of the SDS

Fill in additional information as needed