	<b>HAZARDOUS PRODUCTS</b> ALL-HSE-PRC-153	Retention Code: CG01 - CA
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## 1.0 Purpose

This procedure ensures hazardous products are managed in the safest, most practical manner possible for workers, the general public, and the environment. It supports compliance with:

- Workplace Hazardous Materials Information System (WHMIS).
- Transportation of Dangerous Goods (TDG) Act and Regulations.
- Hazardous Product Act (2015).
- Hazardous Products Regulations (2015).

It applies to all work at facilities either owned or operated by ConocoPhillips Canada (CPC).

## 2.0 Hazards to Mitigate

Hazards include, but are not limited to, the following:

- Fire
- Explosion
- Poisoning
- Corrosion
- Reaction
- Spills, Seeps
- Contaminate Sites
- Discharges
- Depositions emissions
- Radiation
- Reproductive Toxin
- Teratogen
- Irritation/sensitization
- Carcinogen
- Asphyxiation
- Leaks
- Abandoned or dumped wastes
- Sprays
- Exhausts
- Thermal Hazards

## 3.0 Procedure-Specific Roles and Responsibilities

### 3.1. Industrial Hygienist

- Coordinate the creation and updating of safety data sheets (SDS) for CPC produced hazardous products.
- Support the business units in conducting quality control of supplier SDS to ensure compliance with the Hazardous Products Act and Hazardous Products Regulations.
- Provide input to the assessment process for requests to purchase and bring a new chemical to a CPC worksite. (Also see Section 4.2)
- Support business units in conducting health risk assessments for hazardous products, selecting and implementing the necessary controls, and verifying effectiveness of controls.

### 3.2. Environment Representative

- Review and advise on new hazardous product requests.

### **3.3. Work Supervisor**

- Inform workers of potential exposure to hazardous products at a work site.
- Ensure applicable work permits and hazard assessments are complete.
- Ensure TDG and WHMIS requirements are followed.

### **3.4. Worker**

- Understand and control the hazards of the hazardous product being used.
- Be familiar with where to obtain the SDSs for the hazardous products being handled, and understand the key information in the SDS and on the product label.
- Understand the safe handling procedures, including personal protective equipment (PPE) requirements, for any hazardous products they handle.
- Understand what to do in case of emergency or spill.
- Identify missing, illegible and faded labels and replace if product is known
- Inform supervisor if labels are missing or illegible if the product is unknown.

### **3.5. SDS Administrator**

- Maintain SDS database and direct inquiries regarding SDS to the appropriate group (TDG, Industrial Hygiene, Environmental, etc.).

## **4.0 Procedure**

### **4.1. Product Selection**

When possible, chemicals selected should have the:

- Lowest toxicity possible.
- Lowest bioaccumulation potential possible.
- Highest biodegradation potential possible.

Products selected must adhere to the following principles:

- Construction and insulating materials must not contain asbestos.
- Formulations containing chromates must not be used.
- Raw materials containing measurable PCBs must not be used. Transformers or equipment containing PCB-contaminated oil should be avoided.
- Acceptable substances which can substitute ozone-depleting substances (ODS) will be used.
- Only low toxicity substances may be added to water for pipeline hydro-testing.

When possible, drilling mud and lubricants with low environmental impact will be used.

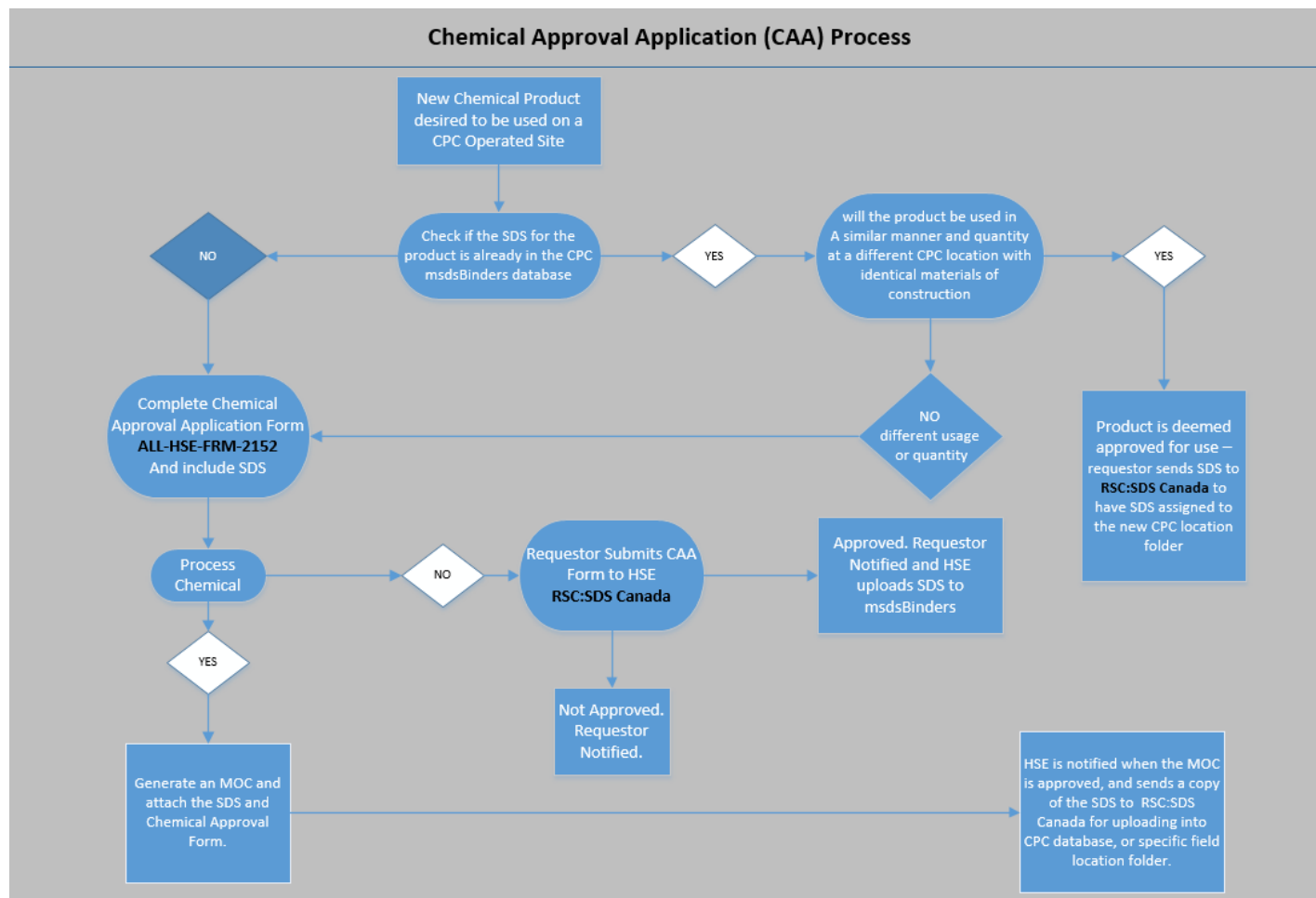
- Unless approved by the appropriate CPC environmental representative and CPC industrial hygienist, products containing traceable amounts of lead, mercury or cadmium may not be used.

#### 4.2. New Chemical Approval Process

- CPC employees and FTEs must follow the approval process for the purchase of chemical products that have not been previously used on a CPC site and/or are not in the SDS database.

If a chemical product is already listed in the CPC SDS database and it will be used in similar manner and quantity at a different CPC location with identical materials of construction, then the product is already deemed approved for use. Send a request to RSC:SDS Canada to have a copy of the SDS added to the folder for the new operating location where the product is to be used.

- If the request is for a new chemical product intended for a non-process application, e.g. janitorial products, chemicals exclusively for lab use, herbicides, pesticides, paints, or maintenance shop products, then the requestor must complete a Chemical Approval Application (CAA) Form (Appendix C). An MOC is not required.
- The MOC procedure must be followed for all new process chemicals, and a CAA Form (Appendix C) must be filled out and attached to the MOC, along with a current SDS. Requestors fill out the first and second page of the CAA form.
  - For timely and accurate HSE assessments to be carried out, it is crucial for the applicant to supply as much information as possible. Insufficient information or missing SDS may cause the application to be delayed or rejected.
  - Once the MOC is approved, notification will be sent to HSE and the SDS uploaded to the CPC SDS database.



### Assessment

Each chemical to be used on site must undergo an HSE assessment to be approved for use. The assessment process enables requirements for controls for the use of the product. Assessments must be conducted based on the information provided in the MOC – the CAA form and review of the SDS.

Any health or environmental risk assessment that results in a significant or high risk ranking as per the CPC Risk Matrix must be assessed and approved by an HSE Manager.

### Health Assessment

The health assessment section of the CAA form must be completed by the Industrial Hygiene Specialist, or delegate.

The health risk ranking must be determined using professional judgement and based on a variety of factors including:

- Health hazards.

- Intended use.
- Quantity.
- Exposure controls proposed.

Products deemed “non-hazardous” on the SDS do not need a health assessment.

#### **Environmental Assessment**

The environmental assessment section of the CAA form must be completed by a CPC Environmental Specialist, or delegate.

The environmental risk ranking must be determined using professional judgement and is based on a variety of factors including:

- Environmental hazards.
- Intended use.
- Quantity.
- Protection methods proposed.

#### **4.3. SDSs**

- Hazardous products must not be used until they have been approved through the MOC process, and the SDS entered into the CPC database.
- The hazards of each hazardous product workers handle or are exposed to along with hazard controls, such as personal protective equipment, must be reviewed with workers.
- If an SDS is missing important information, the CPC industrial hygienist must be notified and applicable follow-up actions taken.
- If there has been a change to the product, the hazards or other information, the SDSs must be updated.
  - If a valid SDS cannot be obtained from the supplier because the product is no longer sold but it is still in use at a CPC site, the outdated SDS will be kept on the SDS database and flagged as obsolete.
  - Supervisors should make every effort to dispose of these types of products and use only products which have a valid SDS.
- Each site is responsible for ensuring the SDSs for products stored or used at their locations are available in their assigned folder in the electronic SDS database inventory.
- If a product is no longer being stored or used by CPC at a CPC site, the SDS Administrator should be notified so that the SDS can be removed from the active inventory and archived.

**Note:** Typically, on the basis of confidentiality, chemicals can be excluded from the SDS if an exemption has been granted to the manufacturer of that chemical by the Hazardous Materials Information Review Commission. The date and registry number of the exemption

will be listed on the SDS. In the event of an emergency, this information must be provided to the appropriate medical professional.

#### 4.4. Identification and Labelling

##### General

- All hazardous products must be identified, classified and labelled according to WHMIS and TDG regulations.
- Workplace labels are required for:
  - ConocoPhillips-produced hazardous products.
  - Purchased hazardous products.
  - Hazardous products from process streams.
- Labelling will be applied at the source by the manufacturer and will be verified upon arrival at site against the SDS (exception: bulk shipments, see Section 4.3).
- As a minimum, labels must include:
  - The name of hazardous product.
  - Precautions for handling.
  - PPE requirements.
  - Reference to the SDS.

Hazardous product identifiers may include:

- Color coding. \*
- Colored bands. \*
- Numbering. \*
- Name of the contents on equipment.
- Tags.
- Any other type of legible identification.

\* Requires a chart showing the meaning of the coding which must be readily available at the worksite to all workers and visitors.

**Note:** For equipment, pipes, etc. ensure the hazardous product identifier indicates the contents and not just the name of the equipment or the destination.

A workplace label must be placed on all containers that hazardous products have been transferred to unless:

- The hazardous product is under the control of the worker who filled the portable container, only used by that worker, is for immediate use, will only be used during the shift the portable container was filled, and the contents of the portable container are clearly identified, or

- The hazardous product is used in a laboratory (e.g. sweet crude oil) in which case only the name of the hazardous product is required.

If a supplier label detaches or otherwise becomes unreadable, it must be replaced with a workplace label.

#### Consumer Products

- While typically not regulated by WHMIS, workers must be as informed about a consumer product as they would be a hazardous product if the product they are using is considered hazardous.
- SDSs should be available for consumer products even though not always required by WHMIS.
- Many consumer products such as janitorial cleaning supplies are available for industrial use with WHMIS labelling and SDS when purchased through warehouse outlets rather than retail outlets.

#### Bulk Shipments

- While TDG labelling is required for bulk quantities (380 L [100 gal.] or more) of hazardous products, it may be delivered without a supplier label. In such cases an SDS must be provided by the supplier in advance that can be used to prepare a workplace label. The workplace label must be applied upon the shipment's arrival to site.

#### Process System

Equipment involved in gathering, distributing or processing a hazardous product must have its contents identified regardless of the size of the equipment. Examples include:

- Piping.
- Pumps.

Identification is not required at regular intervals along a pipe unless a worker is not able to trace the pipe back to the previous identifier. Ensure there is visible identification at points where the pipe may be opened (e.g. process sampling and level checkpoints, pig traps etc.).

If a vessel's contents have been identified and connecting pipes contain the same hazardous product, the pipe's contents do not need to be identified.

### 4.5. Hazardous Products on Site

Each worksite is responsible to develop and maintain (or ensure contractor companies use) a list for hazardous products with one or more of the following characteristics which must be approved for use prior to arrival on site:

- Those which are in quantities greater than 500 L (132 gal.) by volume.
- Those on Environmental Emergency Regulations, Schedule 1, List of Substances.
- For contractors, those that will be left on site beyond the duration of the contract.
- Those considered highly toxic as per the current SDS.



For contractors, if one of the above criteria is met, the SDS and above listed information must be provided to the contract owner prior to arrival to site. The field HSE representative must also be notified (e.g. at the contractor kick-off meeting if applicable).

For unanticipated hazardous products required on site, the field HSE specialist and contract owner should receive the SDS and other product information a minimum of two weeks prior to the anticipated arrival of the hazardous product to site.

The list must contain chemical information such as, but not limited to:

- Chemical identity.
- Manufacturer.
- SDS number.

#### 4.6. Storage

- Store fluids in safe areas that are protected from vehicle contact.
- Store hazardous products at least 30.5 m (100 ft.) from wetlands and water bodies.
- Store fluids in proper containers with closures securely in place.
- Replace worn or damaged containers.
- Segregate incompatible chemicals (e.g. storing oxidizing acids and flammable solvents in separate locations), to prevent production of harmful gases/vapors, heat, fire and explosions.
- Store hazardous materials according to manufacturer's specifications.
- Use approved flammable storage containers to store flammable and combustible liquids exceeding 385 L (100-gal.) in one room.
- Keep flammable and combustible liquids in secondary containers on a counter or bench top provided they do not exceed the 385 L (100-gal.) limit.
- Store inorganic acids in corrosive or acid storage cabinets that have corrosion-resistant interiors and hardware.
- Locate corrosive storage cabinets under fume hoods when available.
- Portable fuel containers must be compliant with CSA B376-M1980 (R2014), Portable Containers for Gasoline and Other Petroleum Fuels.

Hazardous product storage facilities should:

- Be readily accessible to emergency responders.
- Have the following equipment and information available:
  - Spill response equipment (unless a variance is in place).
  - Fire suppression equipment (unless a variance is in place).
  - Safety shower, eyewash stations (if applicable) and first-aid kits (as required by local legislation).
  - Emergency response information.

#### 4.7. Hazardous Product Handling

When using hazardous products:

- Always wear all required PPE identified on the SDS.
- Always use the smallest quantity possible/required.
- Do not use an open flame unless a hot work permit is issued. Also see Pre-Job Hazard Assessment and Hot Work procedures.
- Do not mix, clean or use a flammable or combustible liquid above its flashpoint in an open vessel with potential for an ignition source in the vicinity.
- Consider ventilation requirements.
- Ensure first aid and spill response kits are readily accessible.
- Remove any unnecessary equipment, or other chemicals (particularly those that are highly toxic or flammable) from the immediate work area.
- Notify others in the area of the work being performed and the potential hazards. If personnel are required in the area, ensure they are informed of information contained in the applicable hazard assessment.
- When required, ensure other safety devices such as high temperature controls, overflow devices, grounding and bonding etc. are used.
- Properly dispose of any hazardous waste according to the SDS. Also see CPC Waste Management program.
- If a hazardous product comes in contact with a worker:
- Immediately remove clothing and ensure the clothing is not used until it has been properly decontaminated.
- Immediately flush eyes and skin that has been contaminated for at least 15 minutes and refer to the SDS for proper flushing and first aid measures.
- If contamination is from a flammable substance, avoid sparks or any other ignition source.

#### 4.8. Spill and Accidental Release

- Follow spill management procedures detailed in the supplier Safety Data Sheet (SDS).
- Use recommended PPE specified in the SDS.
- Follow CPC procedures for spill response, clean-up and reporting as required.

#### 4.9. Training

See Training and Competency matrix.

### 5.0 References

- Alberta OHS Code, Part 29, Workplace Hazardous Materials Information System (WHMIS).

- British Columbia OHS Regulation, Part 5, Workplace Hazardous Materials Information System (WHMIS)
- CSA B376-M1980 (R2014), Portable Containers for Gasoline and Other Petroleum Fuels, *Flammable and Combustible Liquids Code*, 2006 Edition.
- Drilling and Production Regulation 50 Facility Application and Operations Manual Appendix E–BC.
- Environmental Emergency Regulations, Schedule 1, List of Substances.
- ERCB Directive 55 Storage Requirements – AB.
- Hazardous Transportation of Dangerous Goods (TDG) Regulations.
- Workers' Compensation OHS Act Part 5, Chemical Agents and Biological Agents.
- CAPP Permits and TDG Guidance ALL-HSE-PRC-627.
- Emergency Response Core Plan ALL-HSE-PLN-220.
- Equipment Spacing procedure ALL-HSE-PRC-173.
- Exposure Assessment program ALL-HSE-PGM-154.
- Hot Work procedure ALL-HSE-PRC-175.
- HSE Incident Reporting program ALL-HSE-PGM-434.
- Industrial Hygiene program ALL-HSE-PGM-155.
- Lease and Right-of-Way Management ALL-HSE-PRC-162.
- Management of Change procedure ALL-HSE-PRC-185.
- Personal Protective Equipment specification ALL-HSE-SPC-643.
- Pre-Job Hazard Assessment procedure ALL-HSE-PRC-387.
- Shipping Document for Road Transportation ALL-HSE-FRM-2124.
- Waste Management program ALL-HSE-PGM-158.

## 6.0 Document Retention

Records must be retained in accordance with ConocoPhillips' Document Retention Schedule.

Record	Owner	Classification	Retention
SDSs	HSE Performance Assurance	HE07	Obsolescence + 30 years
Incident Reports	HSE Performance Assurance	HE03	10 years
Permits	BUs and Functional Departments as applicable.	HE 11	2 years

## Appendix A – Acronyms

Common acronyms for HSE Management System are defined below:

<b>CSA</b>	Canadian Standards Association
<b>ERP</b>	Emergency Response Plan
<b>ERT</b>	Emergency Response Team
<b>FTE</b>	Full-Time Equivalent
<b>H<sub>2</sub>S</b>	Hydrogen Sulfide
<b>HSE</b>	Health, Safety & Environment
<b>MOC</b>	Management of Change
<b>PPE</b>	Personal Protective Equipment
<b>SDS</b>	Safety Data Sheet
<b>TDG</b>	Transportation of Dangerous Goods
<b>WHMIS</b>	Workplace Hazardous Materials Information System

## Appendix B – Definitions

Terms that are important to understanding the Hazardous Product procedure are defined below:

<b>Event</b>	For record retention is end of job unless otherwise required by regulatory requirements.
<b>Hazardous Product</b>	The name given to products, materials, and substances that are regulated by WHMIS legislation. All hazardous products fall into one or more of nine WHMIS 2015 classes.
<b>SDS Administrator</b>	RSC:SDS Canada <SDSCanada@ConocoPhillips.com> The SDS Administrator adds and removes SDS from the CPC SDS database as required and directs any questions regarding SDS to the appropriate person.

Class 6 Poisonous and Infectious Substances 6.1: Poisonous Substances	5 kg or 5 L
6.2: Infectious Substances	Any quantity <i>SOR/2008-34</i>
Class 7 Radioactive Materials	Any quantity that could pose a danger to public safety. An emission level greater than the emission level established in section 20 of the "Packaging and Transport of Nuclear Substances Regulations.
Class 8 Corrosives	5 kg or 5 L
Class 9 Miscellaneous Products or Substances 9.1: Miscellaneous Dangerous Goods 9.2: Environmentally Hazardous Substances 9.3: Dangerous Wastes	25 kg or 25 L

## **Appendix C – Chemical Approval Application Form**

- ALL-HSE-FRM-2152 can be found on the HSE website

**Appendix D – Revision Record**

Section#	August 30, 2016	Previous Information	Change Assessment
4.2	New Chemical Approval Process. More specific instructions for bringing new chemical products onto CPC worksites  MOC requirements restricted to new process chemicals	Follow the MOC process	Low
4.3	Removed requirement to update every 3 years per WHMIS 2015 rules	SDSs required updating every 3 years.	Low
4.8.6	A site-specific operating procedure (SSOP) is required to be developed for small spills.		Low
All	The term “Controlled Product” replaced with “Hazardous Product”; reflects the name change of Controlled Products Regulations to Hazardous Products Regulations in 2015.		Low
Appendix D	Chemical Approval Application Form  Added new form as part of the approval process for chemical management		Low
ALL	Reviewed for HRO Alignment.		Low

Section#	October 21, 2016	Previous Information	Change Assessment
Appendix D	Chemical Approval Application Form  Removed image of form and referenced the stand-alone form	PDF of document	Low

Section#	November 3, 2016	Previous Information	Change Assessment
Appendix C	Removed Spill Reporting Appendix as it is covered in Spill Procedure Documents and not referenced in this procedure		Low