HSS-305 LAR Hazard Communication

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1.0 INTRODUCTION

1.1 Purpose

This standard is designed to provide the employees and contractors working at the Marathon Petroleum Company (MPC) Los Angeles Refinery (LAR) with the tools necessary for identifying and evaluating hazards that may be associated with the chemicals they work with. It identifies the methods for understanding chemical hazards, properly labeling containers, locating safe handling information in the form of the SDS, and procedures for purchasing new chemicals for LAR use.

This standard has been updated is align with the "UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS)", Revision 3, as adopted by OSHA in 2012.

1.2 Scope

This standard applies to all hazardous substances found in LAR where employees and contractors may be exposed under normal conditions and reasonably foreseeable emergency conditions.

This standard does not apply to consumer products when used for the purpose intended. Labeling of piping systems is also exempt.

2.0 REFERENCES

The following sections describe references used to generate this standard.

2.1 Marathon Petroleum Standards

- SAF 4014: Hazard Communication Program

2.2 Government Regulations and Guidelines

- Cal-OSHA Title 8 CCR 5194 Hazard Communication
- OSHA 29 CFR 1910.1200 Hazard Communication
- Cal-OSHA (PSM) Process Safety Management Standard 5189.1
- California Proposition 65 – The Safety Drinking Water and Toxic Enforcement of 1986
- United Nations: Globally Harmonized System of Classification and Labeling of Chemicals (GHS Revision 3)
- U.S. Department of Transportation 49 CFR 172 Subpart E

3.0 DEFINITIONS

The following definitions are applicable to this procedure.

Table 1 Definitions

Term	Description
Acute	Adverse effects of the chemical occur immediately or shortly after exposure.
Carcinogen	A chemical substance that is known to cause cancer in humans, may cause cancer in humans based on animal studies, or is suspected of causing cancer.
Hazardous Chemical	Any chemical which is classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, a hazard not otherwise classified.
Chemical Inventory List	A list of hazardous chemicals used or stored at LAR. The list may be compiled for the workplace as a whole or for an individual work area and may be a hardcopy and/or an electronic spreadsheet, database, or equivalent method.
DMS	Document Management System – a centralized system that provides access to controlled documents and records. This system can be accessed via SharePoint
GHS	United Nations' Globally Harmonized System of Classification and Labelling of Chemicals.
Chronic	Adverse effects of the chemical occur as a result of long term exposure.
Hazard Category	The division of criteria within each hazard class, e.g., oral acute toxicity includes five hazard categories, and flammable liquids include four hazard categories. These categories compare hazard severity within a hazard class and should not be taken as a comparison of hazard categories more generally.
Hazard Statement	A statement assigned to a hazard class and category that describes the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard.
Hazard Class	The nature of the physical or health hazards, i.e. flammables, explosives, carcinogen, irritant
Health Hazard	A substance for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic adverse health effects may occur in exposed employees.
Hazardous Materials Identification System (HMIS)	A common industry labeling method developed by the American Coatings Association to identify hazards associated with a particular chemical.
Label	An appropriate group of written, printed or graphic information elements concerning a hazardous chemical that is affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging.
National Fire Protection Association (NFPA) 704 Labeling System	A common industry labeling method developed by the National Fire Protection Association to identify hazards associated with a particular chemical.
Requisitioner	The person who initiates the acquisition of a new chemical. The Requisitioner may be an end user, a process engineer, or any employee who wants to acquire a new chemical.
Physical Hazard	A chemical that is classified as posing one of the following hazardous effects: explosive; flammable (gases, aerosols, liquids, or solids); oxidizer (liquid, solid or gas); self-reactive; pyrophoric (liquid or solid); self-heating; organic

Table 1 Definitions

Term	Description
	peroxide; corrosive to metal; gas under pressure; or in contact with water emits flammable gas.
Pictogram	A symbol plus other graphic elements, such as a border, background pattern, or color, used to communicate specific information about the hazards of a chemical.
Precautionary Statement	A phrase that describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical, or improper storage or handling.
Proposition 65	The Safe Drinking Water and Toxic Enforcement Act of 1986 that protects California's drinking water sources contaminated with chemicals known to cause cancer, birth defects or reproductive harm.
Safety Data Sheets (SDS)	Written or printed material concerning a hazardous chemical that is prepared in accordance with Title 8 CCR 5194(g).
Signal Word	A word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The signal words used in this section are "danger" and "warning." "Danger" is used for the more severe hazards, while "warning" is used for the less severe.

4.0 RESPONSIBILITIES

4.1 All Personnel

All personnel shall be responsible for the following:

a. Adhering to the requirements of this procedure.

b. Ensuring SDS information for hazardous materials that employees may handle or encounter in their work scope shall be provided to and discussed with contractor

c. Knowing and understanding the hazards and safe handling practices for the chemicals that they use for their job.

d. Ensuring that an SDS is provided to the Occupational Health Department prior to purchase of new chemicals in LAR through the MOC or Supply Chain Management process.

e. Labeling containers in their area with appropriate labels as described in 5.4.

f. Notify Occupational Health Department for any chemical that may not be on the SDS system.

g. All new chemical shall be purchased through the Supply Chain Management.

4.2 Occupational Health Department

The Occupational Health department shall be responsible for the following:

a. Overall administration of the program.

b. Conducting hazard assessments on new and existing chemicals used in the workplace in order to communicate health and safety risks and determine safe handling practices.

c. Developing SDS Bulletins for training on new chemicals.

d. Maintaining and presenting Hazard Communication training as needed.

e. Administrating and maintaining the online SDS/equipment labeling system.

f. Timely updating chemical inventory for reportable chemicals.

g. Annual chemical inventory report submittal to local administering agency.

4.3 Contractors

Contractors shall be responsible for the following:

a. Reviewing SDS information provided by their designated LAR representative prior to the start of work.

b. Having SDS readily available for hazardous materials brought into LAR for their specific use.

c. Having appropriate warning labels on any containers brought into or stored in the facility.

4.4 Requisitioner / MOC Responsible Person

Supervisory Personnel / MOC Responsible Person are responsible for the following:

a. Ensuring that an SDS for each new chemical is reviewed prior to it being introduced into the refinery.

b. Completing the LAR New Chemical Request form and submitting with SDS to the Occupational Health Group prior to introducing the new chemical into LAR See Appendix A.

c. Reviewing existing SDS with new employees and SDS Bulletins with crews for new chemicals as needed.

d. MOC Responsible Person is responsible for notifying the Health Database Administrator of changes to process equipment inventory.

4.5 Procurement

Procurement Personnel are responsible for the following:

a. Ensuring that SDSs have been obtained and submitted for new chemicals prior to purchase. See Appendix B.

4.6 Environmental

Environmental Personnel are responsible for the following:

a. Reviewing the volatile organic compound content, Hazardous Air Pollutant, Waste information and other environmental impacts on new SDS.

b. Notifying Occupational Health and Requisitioner of any usage restrictions and approval or disapproval of any new chemical.

4.7 Laboratory

Laboratory Personnel are responsible for the following:

a. Ensuring that all samples being shipped out of LAR are affixed with GHS compliant labels as stated in section 5.4.1. Refinery streams and product labels can be printed by accessing the SDS on-line system.

4.8 Storehouse

Storehouse Personnel are responsible for the following:

a. Ensuring that all containers of hazardous chemicals that are received into LAR are affixed with GHS compliant labels as stated in section 5.4.1

b. Storehouse will ensure that all containers are labeled before delivery to the refinery units and replace any faded unreadable that contain chemical.

c. Any hazardous chemicals shipped from LAR are affixed with GHS compliant labels as stated in section 5.4.1

b. Shall forward all SDSs received to the Occupational Health Department.

5.0 HAZARD COMMUNICATION PROGRAM OVERVIEW

5.1 Written Program

The Hazard Communication Program is housed in DMS that can be accessed in the SharePoint site.

5.2 Chemical Inventory List

a. The Occupational Health Department maintains an inventory of all chemicals in LAR. The Online SDS system provides access to a listing of the inventory for all employees and contractors with MPC network ID. It also provides information on the refinery stream, product and byproduct contained in each piece or equipment.

b. To ensure that the hazard information provided to each area is accurate, it is the responsibility of the designated Supervisory personnel or Operations Support Engineers to notify the Occupational Health Department of changes to the inventory.

5.3 SDS (Safety Data Sheets)

a. SDS must contain the following sequential 16 sections:

1. Chemical product and manufacturer identification
2. Composition/information on ingredients
3. Hazard Identification
4. First Aid Measures
5. Fire Fighting Measures
6. Accidental Release Measures
7. Handling and Storage
8. Exposure Controls/Personal Protection
9. Chemical and Physical Properties
10. Stability and Reactivity
11. Toxicological Information
12. Ecological Information
13. Disposal Information

14. Transportation Information
15. Regulatory Information
16. Other Information

b. The online SDS system provides electronic SDS access at each LAR network computer. This access is available to all LAR employees and contractors with network Log-On ID. Contractors can also go to the unit Operation's shelter and request a printout from the Shift Team Lead (STL).

c. Directions for access and use of the SDS on-line system is outlined in Appendix C.

d. In case of network malfunction, contact the Occupational Health Department for access to hardcopy SDSs.

5.4 Labeling

All containers (drums, barrels, totes, bags, bottles, cylinders, box, etc.) that contains hazardous materials must have labels that reference the chemical name and hazard (pictures, words or symbols). Pipes and piping systems are not considered as containers and therefore exempt.

Maintain all labels intact. Labels shall be legible, in English, and prominently displayed.

If the label is deteriorated or illegible, obtain a blank label from the storehouse, write the chemical product name and appropriate hazard information obtained from the SDS and affix the label on the container. Contact Occupational Health Group for assistance.

5.4.1 Requirements for Labels Entering or Leaving the Workplace (Shipped Containers)

1. Name, address, and telephone number of the chemical manufacturer, importer, distributor or other responsible party.
2. Product Identifier is the common or trade name. The same product identifier must be both on the label and in section 1 of the SDS.
3. Signal Word
4. Pictogram(s)
   - OSHA HazCom pictograms do not replace U.S. Department of Transportation (DOT) pictograms. DOT labels must be on the external part of a shipped container and must meet the requirements set in 49 CFR 172 Subpart E.
   - Both DOT and OSHA HazCom pictograms may appear on a label for the same hazard.
   - Refer to Appendix D for the Hazard Communication Standard Pictograms and Hazards
5. Hazard Statement(s)
6. Precautionary Statement(s)
7. Supplemental Information
   - Label producers may include additional information it deems helpful. This section must identify the percentage of ingredient(s) of unknown acute toxicity when it is present in a concentration of ≥1% (and the classification is not based on testing the mixture as a whole). Other

supplementary information may include personal protective equipment (PPE), directions of use, expiration date, or fill date.

5.4.2 Workplace Labels or In-Plant Labeling

Portable Containers / Sample Containers

1. Chemicals, such as lube oils, solvents, cleaners transferred into portable containers shall be labeled.
2. The employee transferring chemicals to another container is responsible for labeling the container. Blank labels are available in the storehouse. Brass tags and preprinted labels are also available in the LARC Machine Tool room.
3. Laboratory samples shall be labeled that include the identification and appropriate hazards.
4. Workplace labels on containers shall either have the same label that would be on shipped containers for the chemical or an alternative label that meets the requirements for the HazCom Standard.
5. Labels are not required for portable containers which are intended only for immediate (one shift) use by the employee who performs the transfer.

Stationary Containers / Process Equipment (vessels, pumps, tanks, drums)

1. Process vessels and storage tanks are identified by Equipment Number
2. Hazard information can be accessed by referencing the equipment number on the online SDS system.
3. Guidance on the using the system is outlined in Appendix C.
4. Stationary totes and temporary equipment must have labels that reference the chemical name and hazard.

5.4.3 Alternative Labeling Systems

1. Alternative labels must contain a product identifier and words, pictures, symbols, or combination thereof. It should also provide the general physical and health hazards of the chemicals that in conjunction with the other information that is immediately available to employees.
2. The use of alternative ratings systems such as the National Fire Protection Association (NFPA) 704 Labeling System and Hazardous Materials Identification System (HMIS) for workplace labels may continue so long as the labels are consistent with the requirements of the HazCom Standard and employees are trained on the labeling system.

5.5 Training

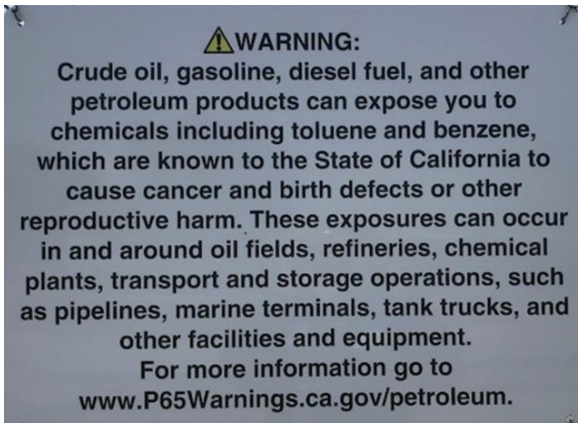
Initial training covering all aspects of this program will be given to all new employees prior to initial assignment or shortly thereafter via classroom instruction. For existing chemicals, area specific SDS information is reviewed with employees after assignment by supervision.

Additional training is also provided when a new hazardous material is introduced to a new work area.

Refresher training for all field personnel is provided every three years via computer-based training.

6.0 PROPOSITION 65 WARNING

6.0.1 In compliance with 27 CCR 25601 and 8 CCR 5194(b)(6)(C), the following warning sign is posted in LAR:



7.0 DETERMINATION OF HEALTH AND SAFETY INFORMATION AND SAFE HANDLING PRACTICES FOR NON-ROUTINE TASK

A number of routes are available for determining Health and Safety Information and Safe Handling Practices. The following list of resources is available for all employees:

- Online SDS System – All LAR Data Safety Data Sheets can be searched in several ways for ease of use.
- LAR Programs – Acid and Caustic Handling, Hexavalent Chromium Protection Program, Hydrogen Sulfide Exposure Program, Safety and Glove Matrix, Benzene, Mercury

Handling, Asbestos and Insulation Handling, Inorganic Lead Policy, Respiratory Protection and Bloodborne Pathogens Programs.

- Specific unit and maintenance procedures - Procedures developed for specific tasks, both routine and emergency, have been developed that include safe handling practice recommendations.
- Operating manuals for each unit are electronically accessible to all employees that includes information of non-routine tasks such as start-up and shutdown procedures.
- Turnaround Package that includes LAR – TAR HSE Contractor Pre-TAR Questionnaire and and Turnaround Occupational Health Requirements.
- Turnaround Control Measures - Shutdown/Turnaround safe work practices are included in Turnaround Health Hazard Summary documents generated by the Occupational Health Department and Safety Department.
- LAR Safe Work Permit: Communicates the hazards associated with non-routine maintenance activities to employees and contractors performing the tasks.

8.0 NEW CHEMICAL APPROVAL AND SDS PUBLISHING

To ensure that the chemical inventory and Product Hazard Information for each area is accurate and up to date, the following procedure should be followed when ordering a new chemical for your area.

8.1 Requisitioner

a. Obtain the latest version of SDS for the new chemical from the manufacturer or vendor.

b. Complete the LAR New Chemical Request Form in Appendix A

c. Submit completed form along with SDS to Occupational Health Department for chemical product review and SDS number assignment.

d. Once approved, Requisitioner can proceed with the purchase of the new chemical referencing the assigned SDS number.

e. For deviations from this process, contact the Health Database Administrator at 310-847-5718.

f. If the product is used elsewhere in LAR, notify the Health Database Administrator about the intent to add it to your area.

8.2 Health, Environmental, Safety and Security Review

a. Health, Environmental, Safety and Security reviewers shall review the SDS to ensure the new chemical can be handled safely and ensure compliance with Environmental and Department of Homeland Security regulations.

8.3 Procurement

If Procurement personnel receives a request to purchase a chemical without an SDS number, they should notify the Requisitioner that the chemical will not be purchased until SDS number has been issued.

8.4 Management of Change for New Chemicals-

New chemicals to be used in covered process equipment shall require a Management of Change (MOC) pursuant to PSM-002 (Management of Change – Changes in Chemicals.

8.5 Publishing New Approved Chemical SDSs

a. Once the new chemical is approved by the appropriate LAR reviewers, the new SDS will be processed in the online SDS database by LAR's SDS Coordinator or another authorized employee.

b. Information needed for accurate SDS entry includes:

- Product Name, Synonym, Manufacturer
- Chemical location assignment:
  - Refinery name
  - Area, process unit and equipment number where chemical will be used or stored

9.0 RECORDKEEPING

9.1 Records Management

All records associated with this Standard shall be maintained in accordance with Marathon Petroleum Corporate Enterprise Records and Information Management Policy (MPC6003).

Records of completed training will be maintained by LAR Learning and Development department.

Records of hazard assessments and SDS system will be maintained by the Occupational Health Department.

9.2 Online SDS System

MPC and Vendor Safety data sheets entered into the database through the online system cannot be deleted once entered. As SDS becomes obsolete, they will be designated as historical SDSs that will be retained indefinitely.

9.3 Submittal of SDSs

Accurate recordkeeping on which SDS can be designated as historical will require periodic updates. Timely submittal of new or revised SDS will be required to maintain accurate and current SDS information.

Appendix A - MPC New Chemical Request and Approval Form

Link: [Chemical and SDS Introduction - New Item (mpcconnect.com)]

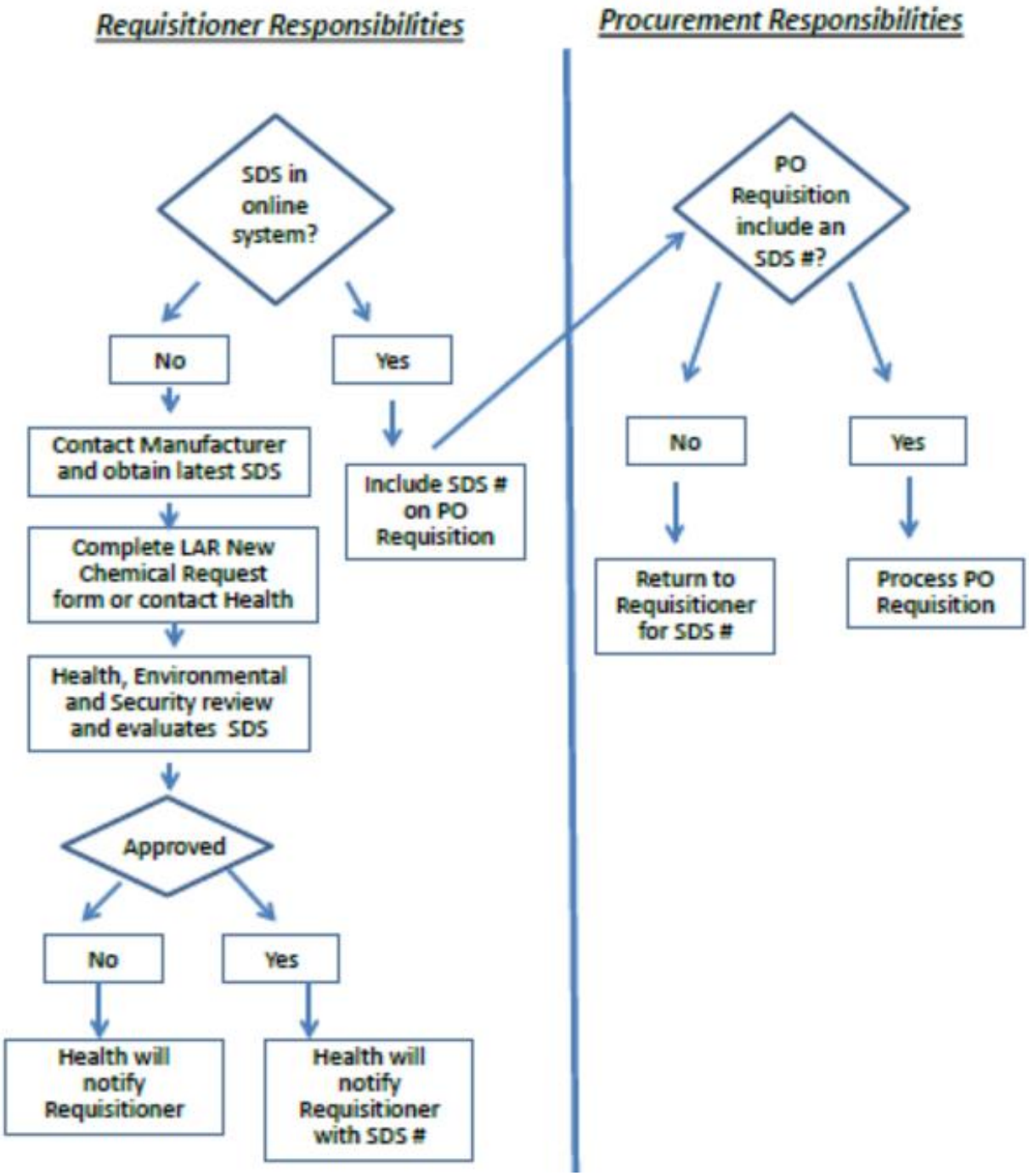
MPCConnect
Mobile Forms and Workflow

Chemical Approval Form

Use Internet Explorer

Request Type *	(•) New ( ) Replacement ( ) Revision ( ) Removal
Requested By:	Scripter, Nicole R.
Chemical Name - New *	New Chemical
Manufacturer - New *	New Manufacturer
Component*	FOC
MOC Number	123
Location Information*	Health Services
Amount Purchased*	15000 Pounds
Maximum Daily Amount	1500 Pounds
Average Daily Amount	1500 Pounds
Number of Days on Site	10
Frequency of Use	Ongoing
MSDS Online Document ID	10090010
Attachments*	Add Attachment

Appendix B - New Chemical Purchase Procedure Flow Chart-



Appendix C - Guide to the SDS Online System

Link to the MPC SDS SYSTEM: eBinder | MSDSonline (ehs.com)

Link: SDS Online System Guide

Appendix D - Hazard Communication Standard Pictograms and Hazards

Health Hazard  • Carcinogen • Mutagenicity • Reproductive Toxicity • Respiratory Sensitizer • Target Organ Toxicity • Aspiration Toxicity	**Flame**  • Flammables • Pyrophorics • Self-Heating • Emits Flammable Gas • Self-Reactives • Organic Peroxides	**Exclamation Mark**  • Irritant (skin and eye) • Skin Sensitizer • Acute Toxicity • Narcotic Effects • Respiratory Tract Irritant • Hazardous to Ozone Layer (Non-Mandatory)
Gas Cylinder  • Gases Under Pressure	**Corrosion**  • Skin Corrosion/Burns • Eye Damage • Corrosive to Metals	**Exploding Bomb**  • Explosives • Self-Reactives • Organic Peroxides
Flame Over Circle  • Oxidizers	**Environment (Non-Mandatory)**  • Aquatic Toxicity	**Skull and Crossbones**  • Acute Toxicity (Fatal or Toxic)

Appendix E - NFPA 704 / HMIS Hazard Rating Guidelines for Chemicals

RATING	HEALTH	FIRE	REACTIVITY
4 Extreme	Death from low level exposures. Highly toxic.	Materials which will rapidly vaporize at ambient conditions and burn. Flash point below 73°F (23°C).	Capable of detonation at ambient conditions.
3 High	Major permanent or temporary injury. Examples include as carcinogens, corrosives, reproductive health hazards, and sensitizers.	Liquids and solids that can be ignited under almost all ambient temperature conditions. Liquids having a flash point below 73°F (23°C) and having a boiling point at or above 100°F (38°C) or having a flash point between 73 and 100°F (23 and 38°C).	Capable of detonation but require a strong initiating source of heat under confinement. React explosively with water.
2 Moderate	Minor temporary or permanent injury. Examples include severe irritants and CNS depressants.	Must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur. Flash point between 100 and 200°F (38 and 93°C).	Normally unstable and undergo violent chemical change but do not detonate. May react violently or form potentially explosive mixtures with water.
1 Slight	Minor injury readily reversible. Examples include irritants.	Must be preheated before ignition can occur. Flash point at or above 200°F (93°C).	Normally stable, but becomes unstable at elevated temperatures and pressures. May react with water with some releases of energy.
0 Not Significant	Toxic effects only under unusual conditions or overwhelming dosages.	Materials will not burn.	Stable under fire conditions and are not reactive with water.

Note: Under the United Nations Globally Harmonized System of Classification and Labelling of Chemicals, and Appendix C of the Hazard Communication Standard §1910.1200, a hazard category of 1 is the most severe and a hazard category of 4 is the least severe.

Appendix F - SDS Bulletin

	Los Angeles Refinery SDS Bulletin

Product Name	**3M ™ Fire Block Foam FB-Foam (SDS / Doc#: 143828416)**
Manufacturer	**3M**
GHS Classification	**Flammable Aerosol: Category 1;** Gas Under Pressure: Liquefied gas; Acute Toxicity (inhalation): Category 4; Serious Eye Damage/Irritation: Category 2A. Skin Corrosion/Irritation: Category 2. **Respiratory Sensitizer: Category 1; Skin Sensitizer: Category 1;** Reproductive Toxicity: Lactation. Simple Asphyxiant. **Specific Target Organ Toxicity (single exposure): Category 1;** Specific Target Organ Toxicity (single exposure): Category 3; **Specific Target Organ Toxicity (repeated exposure): Category 1** ***Most severe risk: Category 1***
Pictograms	
Hazard Word	**DANGER**
Hazard Statements	**Extremely flammable aerosol.** Contains gas under pressure; may explode if heated. Causes serious eye irritation. Causes skin irritation. **May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.** Harmful if inhaled. May cause drowsiness or dizziness. May cause harm to breast-fed children. May displace oxygen and cause rapid suffocation. **Causes damage to organs: cardiovascular system | Causes damage to organs through prolonged or repeated exposure: respiratory system**

Why is this in LAR?
3M Fire block Foam FB-Foam is a sealant that will be used in Boiler House

Safe Handling Practices
Use in well-ventilated areas. Keep away from open flames. Wear nitrile gloves, chemical safety goggles to protect eyes. Ensure eye wash fountains are available in the area where this product will be used.
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Please review the to the Safety Data Sheets before use.

If there are questions about this product, please contact your health representative.

9.4 Revision Log

Title & Procedure Number:	HSS-305 Hazard Communications		
Author/Owner:	Gemma Cortes-Fernandez	***Approver:***	Sharon Callahan
Reviewed By:	Policy & Procedure Committee	***Document Administrator:***	D. R. Cannon
Issuing Department:	Health	***Issue Date:***	09/17/2018
Revision Date:	09/13/2018	***Next Review Date:***	09/17/2020

Revision Summary

Date	Summary of Changes	Changed By	Approved By
9/13/2018	• LAR procedures (FS 405 and HSP-698250) were integrated to create HSS-305.	Gemma Cortes-Fernandez	Sharon Callahan
	• HCS Hazard Class definitions is now included in Section 3.0 - Table 1 Definitions.		
	• New Prop 65 signage		
	• Removed LARW's "List Incompatible Materials"		
	Appendices now include:		
	• LAR New Chemical Request Form*		
	• LAR Refinery SDS Bulletin*		
	• New Chemical Purchase Procedure Flow Chart*		
	• Guide to SDS Online System		
	• NFPA 704 / HMIS Hazard Rating Guidelines for Chemicals *New to LAR Wilmington only		
9/1/2020	• Changed legacy "Andeavor" to "Marathon Petroleum"	Gemma Cortes-Fernandez	Sharon Callahan
4/22/2023	• Section 9.1 – updated policy number from 10.40.010 to MPC6003 • Section 8.5 – removed "Additional physical and chemical properties per the online database user guide for all chemicals as classified as Category 1 hazards. • Updated links to new MPC SDS online system and New Chemical Request/Approval form	Gemma Cortes-Fernandez	Sharon Callahan