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HANDLING HAZARDOUS SUBSTANCES

1. HANDLING CHEMICALS

(Reference CSWP Chapter on “Hazardous substances and mixtures”)

The increased use of chemicals on board ship for cleaning and treatment purposes has highlighted the need for greater vigilance and awareness when handling these chemicals.

Hazards arise from:

- flammability (including the risk of explosion).
- corrosivity towards man and materials.
- toxicity.

Chemicals should always be handled with the utmost care. Some cleaning agents, even though used domestically, for example, caustic soda and bleaches, may burn the skin.

The chemicals shall be used as per relevant manufacturer's instruction.

Chemicals should not be mixed unless it is known that dangerous reactions will not be caused.

Some chemicals and hazardous materials may be flammable and due care and attention shall be taken in identifying them and using the correct smothering agent in the event of a fire.

Original containers are always to be used to identify the contents and avoid confusion.

A chemical from an unlabelled package or receptacle should never be used unless its identity has been positively established.

Containers shall be properly sealed and secured after use.

Whenever shipboard personnel handle flammable, corrosive or toxic chemicals, it shall be done under the supervision of a competent officer.

So far as practical, exposure to chemicals by ships staff shall be kept to a minimum.

1.1. Storage of Chemicals

Chemicals and hazardous materials shall be kept in a ventilated space, segregated from other chemicals where adverse reactions may occur and from flammable materials or materials that can be easily damaged.

Incompatible chemicals like acids and alkaline must be appropriately segregated when stored (see MSDS - “Stability and Reactivity” on materials to avoid and conditions to avoid). They should not be stowed together or above each other.

The stowage area shall be clearly identified by an appropriate notice and should be equipped with adequate storage shelves and suitable means for restraining the drums. The area used should be free of direct and indirect heat and clear of obstructions. Avoid source of ignition near such chemicals.

Certain chemicals attack natural fiber or man-made ropes readily, reducing its breaking strength considerably. Such damage may also not be readily apparent. Therefore, chemicals should not be stowed near ropes, and in particular near equipment such as pilot ladders and safety harness.

Chemicals shall be properly stowed to prevent uncontrolled movement.

Periodic cleanouts shall be conducted to prevent accumulating unnecessary chemicals.

Ensure that caps and lids on all chemical containers are tightly closed to prevent evaporation of contents.

Chemical resistant visors (face shield), apron, gloves and eyewash must be available for use at designated locations.

1.2. Use of Chemicals

Chemicals must always be handled with great care and appropriate PPE to be used. Care is to be taken so as to not breathe chemical vapor. Prior to use, it must be ensured that the correct chemical is chosen for the particular task. All handling instructions and precautions must be read and followed.

Only the minimum quantities of ready-use chemicals, appropriately segregated shall be kept at the point of use. They shall only be used for the specific purpose for which they are supplied and in accordance with the procedures laid down.

Containers must have suitable means to allow extracting the material in a safe manner to minimize risk of spillage and splashing.

The correct usage including degree of dilution should be followed as per maker's recommendation.

Any partially used drum must have the cap securely fitted in place and the drum returned to the storage area.

Any small spills or leaks must be immediately wiped up.

When diluting an acid, pour the acid into the water, stirring constantly. Never pour water into a strong acid. Always follow any mixing directions that may be on the container.

Prolonged exposure to chemical vapor/odor and direct contact with any chemical should be avoided.

Avoid direct contact with chemicals. Eyes and skin should be protected from accidental exposure or contact.

Never smell, inhale or taste a chemical.

Wash thoroughly with soap and water after handling of any chemical.

1.3. Material Safety Data Sheets (MSDS)

Ships personnel are required to know the hazards and controls of chemicals in their work area. This includes emergency First Aid procedures for inhalation, skin/eye contact and ingestion.

The Material Safety Data Sheets contain all of the necessary instructions concerning the storage, segregation, handling and use of the chemicals and must be consulted prior to use of the chemicals.

MSDS are to be posted up in all storage areas adjacent to each type of chemical.

The appropriate personal protective equipment for handling chemicals and hazardous materials as advised in the MSDS must be worn when handling or dispensing chemicals or hazardous materials.

In the event of accidents involving harmful exposure to chemicals, first aid shall be given immediately.

Personnel who handle the chemicals must be aware as to the purpose of the MSDS.

2. ASBESTOS (REFERENCE CSWP CHAPTER ON “HAZARDOUS SUBSTANCES AND MIXTURES”)

2.1. Asbestos Free Policy

Company is committed to providing a safe and healthy work environment for all crew members. The Company recognizes the dangers of asbestos and the serious danger to the health of crew members and therefore bans the presence of asbestos and any product or equipment containing asbestos on any of the company's managed vessels.

All vessels have Builders certificate (Nonuse of materials containing asbestos) certifying that asbestos containing materials were not used in any part of the vessel during construction at shipyard.

2.2. Purchase Order

Company will instruct suppliers to provide Asbestos Free Declarations for all type of supplies to vessel.

Every purchase order issued includes a statement to attach necessary asbestos-free declarations and supporting documentations issued by manufacturers.

2.3. Records of Asbestos Free Declarations

Any parts or materials that are supplied on board or are newly installed after 01 July 2012 (i.e. repaired, replaced, maintained or added) as a working part of the ship, is required to be documented with an asbestos-free declaration.

Before carrying out any maintenance / repair work (including work at shipyard) or installing new equipment, necessary asbestos-free declarations and supporting documentations shall be confirmed prior using materials, equipment, installations and parts.

Asbestos Free Declaration for all types of supplies shall be provided to vessel and are maintained in [SHEQ MEMO Asbestos Certification](#).¹

Logistics department will be responsible for monitoring and ensuring that all supplies and newly installed materials onboard does not contain asbestos and shall ensure supporting documents such as “Suppliers Material Declaration” is received stating that the product is asbestos free.

Also refer Chapter 6.17 – Inventory of Hazardous Materials for Asbestos.²

¹ W 09 / 2024

² W 09 / 2024