



Setting course for a green future

Inventory of Hazardous Materials for newbuildings

The future requirements

In 2013 the “Hong Kong Convention for the Safe and Environmentally Sound Recycling of Ships, 2009” adopted by the International Maritime Organisation (IMO) is expected to come into force. The aim is to minimise, in the most effective, efficient and sustainable way, the environmental and occupational health risks of ship recycling.

A fundamental requirement of the Convention is the documentation of hazardous materials on the vessel. New and existing ships of 500 GT and above will have to carry an Inventory of Hazardous Materials (IHM) and the related International Certificate of Inventory of Hazardous Materials (ICIHM) onboard. Approx. 50,000 existing ships have to obtain the ICIHM within five years, newbuildings from the beginning of their operational life.

To ensure a smooth certification Germanischer Lloyd (GL) offers expert solutions for the IHM. Our experience allows you to be among the first companies present with effective processes resulting in correct IHMs. Right from the start of shipbuilding, GL is your qualified partner to handle and to meet the requirements of the IMO Convention.

Your benefits of early compliance

- Prepare yourself for future legal requirements
- Maintain your image as a green company
- Realise a higher resale value
- Avoid the rush after entry into force
- Allow a smooth IHM preparation and certification process
- Prepare for earlier regional implementation (e.g. EU)

IHM for newbuildings

The inventory quantifies and locates hazardous materials onboard ships which are known to represent a potential hazard to people and the environment.

For assuring safe and environmentally friendly handling of these materials shipyards will prepare the ship-specific IHM based on suppliers information. The information has to be provided by the suppliers via Suppliers Declaration of Conformity (SDoC) and Material Declaration (MD).

Shipyards therefore have to conduct the following steps:

1. Identification of component and equipment suppliers
2. Request to suppliers for SDoC and MD
3. Specification of rooms, compartments and systems
4. Collection and structuring SDoC and MD in accordance with step 3
5. Preparation of IHM Part I
6. Sending IHM to recognised organisation for certification

Professional assistance is foreseen by the Convention. GL actively supports the process of implementation. Our services were developed based on an assessment of the segment and our client's needs. GL's IHM services cover the entire IHM life cycle process to assure a smooth and effective fulfilment of the IMO requirements for all stakeholders.

Content of IHM

The IHM consists of three parts:

- Part I: Hazardous materials contained in the ship's structure and equipment
- Part II: Operationally generated wastes
- Part III: Stores

The parts are applicable to different stages in a ship's life cycle, as shown in the table below:

Scope of the inventory of hazardous materials	Shipbuilding and operating	Preparation prior to recycling	
	Part I Structure and Equipment	Part II Operative Wastes	Part III Stores
Table A Materials Mandatory for new/existing ships and new installations	✓		
Table B Materials Mandatory for new ships/installations; voluntary for existing ships	✓		
Table C Materials Potentially hazardous items		✓	✓
Table D Materials Regular consumer goods potentially containing hazardous materials	List of exclusions		✓

In the shipbuilding phase preparation of Part I of the IHM is required, focusing on the hazardous materials contained in structure and equipment.

Parts II and III of the IHM must be completed when a ship is prepared for recycling under the responsibility of the shipowner.

GL provides extensive knowledge and professionalism to ensure early compliance with the requirements of the IMO Convention. The easy access to material declarations is the key for safety and quality throughout all cycles of a ship's life. Our software tools and experienced professional services effectively support a smooth inventory preparation and certification.

IHM software solutions by GL

GL offers a smart software solution for new and existing ships to support all IHM-related aspects. The GL inventory software enables the management of the enormous amount of information required. Improved readability and data quality will ensure the efficient updating and maintenance of the IHM during vessels' operational phase:

- Recording results of document analysis
- Listing of ship-specific material assumptions
- Structuring of ship
- Definition of location, system, etc.
- Preparation of Visual/Sampling Check Plan
- Documentation of sample and analysis results
- Preparation of IHM Part I
- Smooth certification process
- Access to all related data and management thereof
- Maintenance of IHM throughout the ship's life
- Utilisation of data for ship recycling preparations

MD Consulting for suppliers

To achieve safe operation the new Convention requires suppliers to provide a full Material Declaration for the IHM preparation. The MD has to be accompanied by the legal statement, the Suppliers Declaration of Conformity (SDoC).

To comply with the legal requirements the correctness of MDs is crucial. As suppliers have to collect material information about each component they have to involve reliable supply chains. Due to the high number of documents to be maintained over the next decades, integration into established processes is essential. GL offers support on implementing a reliable system and the certification of related processes. As an alternative to the certification our consulting services ensure that the MDs are effectively prepared, of the highest quality and in compliance with the upcoming IMO requirements.