



Inventory of Hazardous Materials for newbuildings

Setting course for a green future

The future requirements

In 2015 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 will have to obtain the ICIHM within five years, newbuildings from the beginning of their operational life.

To ensure smooth certification, Germanischer Lloyd (GL) offers expert solutions for the IHM. Our experience allows you to be among the first companies 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)
- Immediately enhance the work environment onboard ship
- Mitigate risks for health and environment

IHM for newbuildings

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

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

Shipyards must therefore 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 under the responsibility of the shipowner when a ship is prepared for recycling.

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 professionals effectively support smooth inventory preparation and certification.

To receive more information about our ship recycling services please contact us.

One-stop shopping at GL

GL's ship recycling services offer synergies and integration to other GL services and products:

<p>Certification (GL Systems Certification) IMO, ISO, Emission trading amongst others</p>	<p>Training (GL Academy) HazMat Expert seminar, IMO Convention on Ship Recycling, Ship Recycling for Ship Owners, Ship recycling for Ship Yards and Suppliers</p>
<p>Ship Operational Software (GL Maritime Software) GL ShipManager, GL HullManager, GL FleetAnalyzer, GL SeaScout, GL Rules Pilot</p>	<p>Consulting (FutureShip) Material Declaration Consulting, Environmental Consulting</p>

GL Systems Certification

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IHM software solutions

GL offers a smart software solution for new and existing ships to support all aspects of IHM preparation, certification and maintenance. 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 a vessel's operational phase:

- Recording results of document analysis
- Listing of ship-specific material assumptions
- Structuring of ship systems
- 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 assure safe ship operation, the new convention requires suppliers to provide a full Material Declaration for the IHM preparation. The MD must 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 are responsible for collecting material information about each component, they must maintain reliable supply chains. Integrating these supply chains into established processes is essential if they are to cope with the large number of documents that must be maintained over the coming decades.

GL offers both support on implementing a reliable system and certification of related processes. As an alternative to certification, our consulting services ensure that MDs are effectively prepared, are of the highest quality and are in compliance with the upcoming IMO requirements.