UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT



7. Dangerous Goods and Exceptions Handling

Revision: 8
Date: 13 December 2024

7.0 Introduction

7.1 Use of Technical Instructions

7.2 General Procedures

7.3 Special Loading Procedures

7.4 Classes and Divisions - Definition and Handling Labels

7.5 Special Handling Labels

7.6 IATA IMP Code Directory

7.7 Handling of Dangerous Goods

7.8 Special Load Notification To Captain

7.9 Loading Precautions for Incompatible Loads

7.10 Handling of Damaged Dangerous Goods

7.11 Dangerous Goods Carried by Passengers and Crew

7.12 Dangerous Goods Appendix I

7.13 Loads Requiring Special Handling

7.14 IATA Documentation

7.15 Blocking Shipments

7.16 Managing Unidentifiable Pieces

7.17 Managing Pieces Without Data

7.18 Managing Damaged Pieces

7.19 Managing Problem Pieces

7.20 Managing Mis-sorts / Mis-codes

7.21 Managing Clearance Problems

7.22 Hold Material - Secure Area Procedure

7.23 Recovering Material from External Inspection

7.24 Performing Inventory Control

7.25 Action Routing Change

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:45)

UNCONTROLLED DOCUMENT

Page	Date	Comment
70	13 December 2024	Addition of requirement for stations that are open for Live Animals, Perishable Cargo, or Temperature controlled shipments to have access to applicable regulatory documents.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:45)

UNCONTROLLED DOCUMENT

7.0 Introduction

Preparation procedures for aircraft loading of Dangerous Goods must be in accordance with international / national / local legislation, DHL Dangerous Goods policy & procedures and DHL AGOM, with references and GSOP.

This Chapter of the manual does not replace or supersede the procedures as defined by the DHL Global Restricted Commodities Group (Global RCG). These procedures, the required forms such as DG and AVI Acceptance Check List, Handling Labels, PER procedures, the methods of ordering such, can be found at:

https://dpdhl.sharepoint.com/sites/Global-Restricted-Commodities/sitepages/Pick-Up-To-Delivery.aspx

SCOPE:

DHLAGOM Part 7 is globally applicable.

Regional variations for Restricted Commodities can be found under:

- Europe See DHLAGOM **Europe Regional Variations**
- North America See DHLAGOM **Americas Regional Variations**
- Middle East and Africa See DHLAGOM **Middle East and Africa Regional Variations**

The information in this section refers to the loading restriction of Restricted Commodities applicable to all operators and aircraft types listed in this manual. It does not, neither is it intended to, replace or offer an alternative to the Dangerous Goods Regulations as defined in this document, which specifically refers to the handling of Restricted Commodities. This section of the manual is to show limitations as to where specific Restricted Commodities may or may not be loaded.

Where a load incompatibility restriction is appropriate, in accordance with Dangerous Goods Regulations or **6. Cargo and ULD Handling**, then such a restriction supersedes any lesser restriction shown in this manual.

1. **General Regulations**

All regulatory and company rules, procedures, policies and restrictions pertaining to the carriage of Restricted Commodities, as defined by ICAO and/or IATA, onboard the aircraft listed in this manual, must be complied with. Refer to this document (**7. Dangerous Goods and Exceptions Handling**), and the Aircraft Technical Specifications chapters, as well as DGGP Section one and three for the approved DHL procedures regarding handling of Restricted Commodities.

2. **Country and Operator Variations**

All applicable Country and Operator variations must be adhered to at all times.

Frequently used country variations will appear only in this section of the manual.

Variations specific to a particular aircraft will be listed under the entry for that aircraft.

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:45)

UNCONTROLLED DOCUMENT

3. **USA Flights (USG-13)**

Observe the following restrictions for all flights with Restricted Commodities operated with aircraft registered in the USA (N-registered) and all flights to, from or within the United States of America:

	RXS, RFG, RPG, RFL, RFS, RFW, RSC, ROP, ROX, RPB, RCM	RCL, RNG together	ICE, RSB*, MAG, RMD
Per **each** lower-deck **hold**	Max. 25 kg/l net	Max 75 kg/l net	No limit
Total on all **in**-accessible **pallets** on the main-deck	Max. 25 kg/l net	Max 75 kg/l net	No limit
Accessible pallets on the main-deck	No limit	No limit	No limit

Exceptions

On freighter aircraft the above rules does not apply to the following:

- RFL packing group III without any sub-risk
- RIS
- RPB without any sub-risk

* RSB is limited to a maximum of 100kg in each hold and in each inaccessible ULD.

4. **Japan Flights (JPG-11)**

Observe the following restrictions for all flights with dangerous goods to, from, transiting or over-flying Japan:

Do not load RRW, RRY (Radioactive Material, Class 7) in the same **hold or ULD** together with packages containing one or more of the following dangerous goods:

- RCX, RGX, all RX... – Explosives (Class 1)
- RFG, RNG, RCL, RPG – Gases (Class 2)
- RFL – Flammable Liquids (Class 3)
- RCM – Corrosives (Class 8).

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:45)

UNCONTROLLED DOCUMENT

7.1 Use of Technical Instructions

Dangerous Goods are defined by ICAO (International Civil Aviation Organization) Annex 18 to the *Convention on International Civil Aviation* and its *Technical Instructions for the safe Transport of Dangerous Goods by Air* (Doc 9284-AN/905). The IATA Dangerous Goods Regulations contain all the requirements of the Technical Instructions and defines procedures and instructions for the transport of Dangerous Goods by air. According to this Dangerous Goods are defined as: Articles or substances which are capable of posing a hazard to health, safety, property or the environment and which are shown in the list of Dangerous Goods in these Regulations or which are classified according to the Regulations. IATA has included additional requirements, which are more restrictive than the Technical Instructions and reflect industry standard practices or operational considerations.

DHL's policies and procedures are based on IATA DGR but are not limited to them. ADR or other applicable regulations are also mandatory where applicable.)

The *IATA Dangerous Goods Regulations* are published annually, therefore DHL must ensure that all relevant staff are using the most up to date version (last available edition), including all addendums.

Every station must maintain at least one copy of the current *IATA Dangerous Goods Regulations* (IATA DGR) in English.

The *IATA Dangerous Goods Regulations* are divided into 10 sections + Appendices as listed below

Section 1: Applicability

This section covers:

- Dangerous Goods Definition
- Basis and application of the regulations
- Responsibilities of the shipper and operator
- Training requirements
- Security requirements

Section 2: Limitations

This section contains information on:

- Forbidden Dangerous Goods
- Hidden Dangerous Goods
- Dangerous Goods Carried by Passengers or Crew
- Transport of Dangerous Goods by Post
- Dangerous Goods in Operator's Property
- Dangerous Goods in Excepted Quantities
- Dangerous Goods in Limited Quantities
- State and Operator Variations

Section 3: Classification of Dangerous Goods

Dangerous Goods are classified according to the potential danger they might cause. IATA has defined nine different UN hazard classes with each class having their own characteristics and respective hazards. All Dangerous Goods can be assigned to one or more of these hazard classes (primary and subsidiary hazards) and, where applicable, to one of three Packing Groups.

Some hazard classes are further subdivided into hazard divisions due to the wide scope of the class, e.g. Division 2.1, 2.2 and 2.3

The nine classes relate to the **type of hazard** whereas the packing groups relate to the applicable **degree of**

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:45)

UNCONTROLLED DOCUMENT

danger within the class.

- PG I high danger
- PG II medium danger
- PG III low danger

The classes and divisions are shown in detail in Chapter 7.4 - Classes and Divisions - Definition and Handling Labels.

Section 4: Identification

Dangerous Goods are assigned to proper shipping names and UN numbers (or ID numbers) according to their hazard classification and their composition. The UN number and proper shipping name can identify a substance or a particular group of substances. The list of Dangerous Goods, Subsection 4.2 of the IATA DGR ("blue pages"), is an encyclopaedia containing approximately 3000 articles and substances with hazardous properties which are most likely to be shipped by air. For each of the Dangerous Goods the following information are given:

- UN or ID number
- Proper Shipping Name/Description
- Class or Division (Subsidiary Hazard)
- Hazard labels to be applied on the box
- Packing Group
- Excepted Quantity Code
- Passenger and Cargo Aircraft Limited Quantity – Packing Instructions and Maximum Net Quantity per Package
- Passenger and Cargo Aircraft – Packing Instructions and Maximum Net Quantity per Package
- Cargo Aircraft Only – Packing Instructions and Maximum Net Quantity per Package
- Special Provisions
- ERG Code – Emergency Response Drill Code as found in the ICAO document "The Emergency Response Guidance for Aircraft Incidents involving Dangerous Goods"

The absence of an article or substance from the list should not be interpreted as permitting its carriage by air.

The list is not all-inclusive; therefore it contains a number of generic or not otherwise specified (n.o.s.) names or entries, under which unlisted items may be transported. The "not otherwise specified" entries followed by a star («) require the technical name of the substance in brackets immediately following the proper shipping name.

Note:

The list of Dangerous Goods includes a number of articles and substances that are forbidden on an aircraft under any circumstances.

Be advised that Dangerous Goods that are permitted according to the applicable road regulations may be prohibited according to IATA DGR.

Section 4 also lists various numbers of Special Provisions that could exclude more specified Dangerous Goods from IATA DGR and describe the requirements for shipping those.

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:45)

UNCONTROLLED DOCUMENT

Section 5: Packaging

The shipper is responsible for proper packaging.

This section (“yellow pages”) provides details of general and specific packaging requirements (packing instructions).

For each product mentioned in the “blue pages” of the IATA DGR, a packing instruction is developed with a complete description on how to pack the substance/article. The applicable packing instruction for a certain substance/article is listed in the “blue pages” and can differ for each of the three Packing Groups. Sometimes these differences are very small, but they can also change the packaging entirely.

Packing Instructions describe the way how to pack and which packaging can be used including inner packaging, outer packaging, single packaging, material permitted, maximum quantities permitted in inner packaging. Also, note that the maximum quantity permitted in the outer packaging is mentioned in the “blue pages”.

Besides that the Packing Instructions could also provide information regarding additional marking, labeling and documentation.

Section 6: Packaging Specifications and Performance Tests

Section 6 includes the following points:

- Requirements for Inner Packaging
- Specifications for UN Outer, Single and Composite Packaging’s
- UN Packaging Performance Tests
- Requirements for the Construction and Testing of Cylinders and Closed Cryogenic Receptacles, Aerosol Dispensers and Small Receptacles Containing Gas
- Packaging’s for Infectious Substances of Category A
- Test Criteria for Limited Quantity Packaging
- Test Criteria for Salvage Packaging
- Requirements for the Construction and Testing of IBC’s

Each tested package carries a specific mark under the form of a code (UN specification mark): UN letters followed by type of packaging, severity of testing, etc.

Example:



Section 7: Marking and Labelling

Proper marking and labelling is up to shipper’s responsibility.

Dangerous Goods packages are required to be marked and labelled in a specific way to make them easily identifiable. This section states the marks and labels which must be applied by the shipper to each package containing Dangerous Goods if not otherwise specified within the regulations.

Required IATA mark includes:

- UN specification mark
- UN or ID number and Proper Shipping Name
- Name and address of both shipper and consignee

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:45)

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

- The net quantity or gross weight followed by “G”, for consignments consisting of more than one package containing different Dangerous Goods contents. The requirement does not apply to:
- consignments of only one package with Dangerous Goods contents;
- consignments of multiple packages with identical Dangerous Goods contents (i.e. each package with same UN number, proper shipping name, packing group, and quantity);
- ID 8000, Consumer commodity and Radioactive Material (Class 7)
- Special marks for certain divisions, certain type of packages

Required IATA labelling includes:

- Hazard labels
- Handling labels
- Other labels (labels required by other international or national transport regulations)

Labels and their applicability are shown in Chapter **7.4 - Classes and Divisions - Definition and Handling Labels**.

Section 8: Documentation

Except as otherwise specified in the IATA DGR, an “Air Waybill” and a “Shipper’s Declaration for Dangerous Goods” form must be completed by the shipper and accompany each shipment of Dangerous Goods until final destination. Detailed instructions for the completion of these documents are described in this section.

Section 9: Handling

This section details the responsibilities of operators with regard to the acceptance, handling and loading of Dangerous Goods. However, nothing contained herein should be interpreted as requiring an operator to transport a particular article or substance or as preventing an operator from imposing special requirements on the transport of a particular article or substance.

Note:

Nothing in this Section is intended to preclude a ground handling agent from carrying out some or all of the functions of an operator. However, such ground handling agents are subject to the Operator Responsibilities of Sections 1 and 9 of IATA DGR.

Special notice should be taken of segregation of packages when loading. The table from this section is reproduced in Chapter **7.9.1 - Incompatibility Chart**

Section 10: Radioactive Material

This section covers **all** aspects of Radioactive Materials including:

- Applicability
- Limitations
- Classification
- Identification
- Packing
- Packaging Specifications and Performance Testing
- Mark and Labelling
- Documentation
- Handling
- Additional Shipment Preparation

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:45)

UNCONTROLLED DOCUMENT

Appendices

The appendices include:

- Glossary
- Nomenclature
- Currently Assigned Substances
- Competent Authorities
- Packaging Testing Facilities, Manufactures and Suppliers
- Related Services
- IATA Safety Standards Programs
- Impending Changes

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:45)

UNCONTROLLED DOCUMENT

7.2 General Procedures

Dangerous Goods are defined by the ICAO Regulations for the carriage of Dangerous Goods by Air and published in the IATA Dangerous Goods Regulations. Other special cargo handling requirements are published in the IATA Perishable Cargo Handling Manual and the IATA Live Animal Regulations.

Dangerous Goods can be carried safely, provided they have been prepared for carriage in strict compliance with the detailed requirements of the current IATA Dangerous Goods Regulations which include:

- Limitation of the quantity per package
- Adherence to the very strict packing instructions
- Provision of specific marks and labels on the outside of the package
- Availability of special documentation
- Special requirements for stowage and segregation from Dangerous Goods/ AVI/ PER
- Prohibition of some Dangerous Goods from carriage on passenger aircraft
- Prohibition of some Dangerous Goods for carriage on board any aircraft

The acceptance of Dangerous Goods for carriage by air shall only be done by certified staff members who have received appropriate training on the IATA Dangerous Goods Regulations (Category 6, DG Acceptance Check, Dry Ice Acceptance Check, DG Conformity Check).

Handling and loading (into an aircraft compartment or ULD) shall only be performed by certified staff members who have received appropriate training on the IATA Dangerous Goods Regulations (Category 8, 10, CIS DG Load, DG Loadplanner Office, DG Loadplanner Ramp).

Dangerous Goods must never be carried on the Flight-Deck, except in accordance with limited restrictions specified by the Authority or in the IATA DGR.

Damaged parcels can jeopardize the safety of the crew, the aircraft and staff at destination, so **under no circumstances** shall Dangerous Goods be loaded into an aircraft whenever damage is noted or suspected. Prior to loading:

- A package or overpack containing Dangerous Goods to be loaded onto an aircraft or into a ULD shall be inspected to determine that it has no signs of leakage, damage, tampering, fume or other indication that the integrity of the package has been compromised and for radioactive material Type A and B that any package seal has not been broken.
- The ULDs containing Dangerous Goods to be loaded onto an aircraft shall be inspected for evidence of fumes, leakage, tampering or damage to any Dangerous Goods contained therein.

Any package, which appears to be damaged or leaking, must be removed from the aircraft and safe disposal arranged. In the case of leakage, it must be ensured that the remainder of the consignment is undamaged and that no other package or equipment has been contaminated.

After unloading the aircraft, the outer packaging of Dangerous Goods shall be inspected for signs of damage, leakage, fumes, tampering or contamination. After unloading the ULD, both the outer packaging of the restricted commodity and ULD shall be inspected for evidence of damage, leakage, fumes or contamination. Also the aircraft shall be inspected for evidence of leakage or spillage.

If evidence of damage or leakage is found, the position where the Dangerous Goods or ULD was stowed on the aircraft must be inspected for damage or contamination and any hazardous contamination removed.

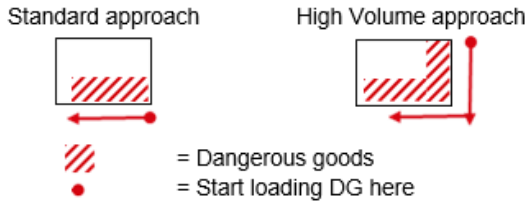
Packages containing Dangerous Goods shall always be handled with care to avoid damage. In particular throwing, bumping and dropping such packages must never occur.

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:45)

UNCONTROLLED DOCUMENT

Packages with special handling instructions (Labels or Imprints e.g., “This Way Up” arrows to indicate the proper orientation of the package etc.) must be handled in accordance with such marks and restrained in a manner that will prevent moving of package in the way that orientation of the package will change during warehousing and during ground/air transportation.

Dangerous Goods must be loaded in a ULD using the “First Out” principle. They shall be loaded in the front of the ULD, ideally at the right-hand side, and without heavy pieces loaded on top. In case of high volumes, loading of Dangerous Goods can start along the right-hand side of the ULD and continue along the front of the ULD. It is important that no other goods are loaded in front of the Dangerous Goods. This loading method is to ensure that, in an emergency, the Dangerous Goods can be unloaded first from the ULD without having to unload other goods to allow access.



Dangerous Goods shall be secured to prevent any movement and damage by other shipments or cargo during flight.

Temperature sensitive products must not be over stowed with other cargo.

Whilst the operator is not permitted to apply labels to a package prior to or at time of acceptance (shipper’s responsibility), labels which have become lost, detached or illegible thereafter must be replaced by the operator in accordance with the regulations and after carefully cross-checking on the Dangerous Goods Declaration.

The use of English for marks, labelling and any transport documents is mandatory, additionally to the language which may be required by the state of origin.

The pilot-in-command shall be notified **in writing** prior to departure that Dangerous Goods are on board. For this purpose the completed form “Special Load Notification to Captain” shall be used (see Chapter **7.8 - Special Load Notification To Captain**)

A change in load and/or in loading position at transit station shall be recorded in the Loading Instruction/Report (Load plan) and in the “Special Load Notification to Captain” (see Chapter **7.8 - Special Load Notification To Captain**)

Incompatible Dangerous Goods need to be segregated from each other. Segregation assignments can be found under point **7.9.1 - Incompatibility Chart**

Facilities are equipped as required with specifically configured areas and equipment appropriate for the acceptance and transit/temporary storage of dangerous goods, including Radioactive Materials, if applicable.

For specific aircraft hold restrictions, refer to the relevant DHL AGOM Aircraft Specification Chapters.

For procedures covering warehouse handling of Dangerous Goods, please refer to DHL AGOM **7.13 - Exceptions Handling**

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:45)

UNCONTROLLED DOCUMENT

7.3 Special Loading Procedures

7.3.1 Radio Active Material (Class 7 – RRW & RRY)

1. **General**

In order to avoid exposure, radioactive packages must be stowed and loaded in such a way that the cumulative effect of all the boxes together is limited. In order to control radiation exposure, the Transport Indices (TI) is calculated for packages, overpacks and freight containers. The limits for DHL network flights are:

Maximum TI per package:	**10**
Maximum TI per group of packages:	**50**
Maximum TI per ULD:	**50**
Maximum TI per aircraft:	**50** For a passenger aircraft or **200** For a cargo aircraft

Radioactive Materials are divided into three categories, Category I, II and III.

A more specified explanation can be found under **7.4.7 - Class 7 – Radioactive Material** point 4 or in effective version of IATA DGR chapter 10.

2. **Category I (White Label – RRW)**

There are no restrictions for loading Radioactive Material Category I-White (RRW). No Transport Index is shown on the hazard label, since the measured TI cannot be greater than 0 (if the measured TI is not greater than 0.05, the value quoted may be 0).

3. **Category II & III (Yellow Label – RRY)**

These are materials with a TI greater than 0 but not more than 1 for II-Yellow and not more than 10 for III-Yellow. The Transport Index for each package will be shown on labels affixed to that package.

Radioactive Material having a Transport Index greater than 0 must be located at a minimum distance from the flight deck. The IATA Dangerous Goods Regulations gives details of minimum separation distances between the flight deck or passenger cabin and any package containing radioactive materials. The minimum distance is determined according to the Transport Index of the package or the sum of the Transport Indices of a group of packages, and must be observed.

To ensure maximum separation distances between passengers and crew, packages containing radioactive material, when loaded in lower deck compartments or ULDs shall always be stowed on the floor of the compartment or ULD. It must be ensured that no damage can be caused by other goods placed on top of these Dangerous Goods. Radioactive Materials must be restrained so that they cannot move under any circumstances during flight

For loading of RRY on specific aircraft, refer to DHL AGOM Aircraft Specification Chapters. Separation of RRY and other Dangerous Goods as well as other special loads is covered in DHL AGOM **7.9 - Loading Precautions for Incompatible Loads**.

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:45)

UNCONTROLLED DOCUMENT

7.3.2 Dry Ice (Class 9 – ICE)

The following regulations shall be applied when carrying dry ice (ICE) for use as a refrigerant or as cargo on board of an aircraft.

Dry Ice may be carried provided that the operator has made suitable arrangements depending on the aircraft type, the aircraft ventilation rates, the method of packaging and stowing and other factors. Special notice should be taken to the relevant airline's loading procedures for Dry Ice limitations.

The structure of compartments or unit load devices (ULD) shall be protected by insulating material against direct contact with the ICE or its packaging.

Transit stations and the station of destination shall ensure that time is allowed to permit adequate ventilation before staff enter the compartment.

More details on how much Dry Ice can be loaded and where per type of aircraft for each operator can be found in DHL AGOM Aircraft Specifications Chapters.

Separation of ICE and other Dangerous Goods as well as other special loads is covered in DHL AGOM **7.9 - Loading Precautions for Incompatible Loads**.

7.3.3 Magnetized Material (Class 9 – MAG)

Magnetized Material must **not** be loaded in such a position that they will have a significant effect on the direct-reading magnetic compasses or on the master compass detector units. The loading position therefore depends on the type of aircraft used.

A more specific explanation can be found under point **7.4.9 - Class 9 – Miscellaneous Dangerous Goods**.

More details on the loading positions of magnetized material per type of aircraft for each operator can be found in DHL AGOM Aircraft Specifications Chapters.

7.3.4 Cryongenic Liquid (Division 2.2 – RCL)

Cryogenic liquids are packed in packages with a vent opening, in order to release the gas to prevent a buildup of pressure inside the receptacle. It is therefore very important to follow the instructions on the package which indicates the package must be kept upright, and handled with care. Take special care not to drop these packages.

7.3.5 Self-Reacting Substances and Organic Peroxides

Packages or ULDs containing shipments of self-reactive substances of Division 4.1 (RFS) and/or Organic Peroxides (ROP) of Division 5.2 must be protected from direct sunlight and all sources of heat and be placed in adequately ventilated areas during the course of loading.

7.3.6 Liquid Dangerous Goods

Packages bearing the package orientation 'This Way Up' label must be stowed accordingly. Single packages with end closures containing liquids must be stowed with such closures upwards, notwithstanding such packages have side closures.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:45)

UNCONTROLLED DOCUMENT

7.3.7 Cargo Aircraft Only Shipments

Packages or overpacks of Dangerous Goods bearing the “Cargo Aircraft Only” (CAO) label must be loaded on a cargo aircraft only, in accordance with one of the following provisions:

- In a Class C cargo compartment; or
- In an ULD equipped with a fire detection/suppression system equivalent to that required by the certification requirements of a Class C aircraft compartment as determined by the appropriate national authority; or
- In such a manner that in the event of an emergency involving such packages, a crew member or other authorised person can access those packages, and can handle and, where size and weight permit, separate such packages from other cargo.

CAO shipments that are required to be loaded accessible on the Main Deck as detailed in bullet point 3 above must always be loaded on pallets and on each pallet an aisle of 0.5 m may have to be provided over the full length of the long or short side of the pallet, depending on the configuration and/or the aircraft type.

If one side of the pallet is not sufficient, more accessible CAO can be loaded if an extra aisle of 0.5 m is built on the front or back end of the pallet. A pallet with two aisles can be loaded on most aircraft types, but may not necessarily provide additional accessibility.

Pallets with CAO shipments must be loaded according to instructions in DHLAGOM Aircraft Technical Specification Chapters. If more than one CAO pallet needs to be loaded, the loading of the other CAO pallets in the 2nd, 3rd, 4th positions, alternatively in Left and Right positions on twin-track aircraft, may still be allowed, provided an aisle has been built according to the requirements of the aircraft type and/or operator.

If the above is not possible they can be loaded further back, as long as they are visible and accessible to the crew and allowed by the aircraft operator. This can be achieved if the positions in front of the pallet containing CAO shipments are empty or have been built with an aisle to ensure the accessibility.

All these requirements do not apply to:

- UN3529, Engine, internal combustion, flammable gas powered or Engine, fuel cell, flammable gas powered or Machinery, internal combustion, flammable gas powered or Machinery, fuel cell, flammable gas powered
- Substances of Class 3, Packing Group III, other than those with a subsidiary hazard of Class 8 or UN3528, Engine, internal combustion, flammable liquid powered or Engine, fuel cell, flammable liquid powered or Machinery, internal combustion, flammable liquid powered or Machinery, fuel cell, flammable liquid powered.
- Toxic Substances (Division 6.1) with no subsidiary hazard other than Class 3
- Infectious Substances (Division 6.2)
- Radioactive Materials (Class 7)
- Miscellaneous Dangerous Goods (Class 9)

These products can be loaded anywhere on a cargo aircraft, even if they are CAO, with certain exceptions as defined by specific Operator and Country Variations. See DHLAGOM Aircraft Technical Specifications Chapters for aircraft specific information.

Cargo Attendants are **not** considered as passengers and therefore may be on board together with CAO, as per EASA Air OPS - CAT.GEN.MPA.165.

Operators can impose further restrictions for the loading of CAO shipments, see DHLAGOM Aircraft Technical Specifications Chapters.

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:45)

UNCONTROLLED DOCUMENT

7.3.8 Explosives

Class 1 divisions are supplemented with Compatibility Groups, denoted by a letter after the class Division, e.g. 1.4**D**, which identify the kinds of explosive articles and substances that are deemed to be compatible. An overview about Compatibility requirements can be found in IATA DGR Table 3.1.A and 3.1.B.

Most explosives are forbidden for air transport with very few exceptions in division 1.3 and most 1.4. All approved and forbidden explosives for air transport can be found under point **7.4.1 - Class 1 – Explosives** point 4 and 5.

Separation of Explosives and other Dangerous Goods as well as other special loads is covered in DHLAGOM **7.9 - Loading Precautions for Incompatible Loads**.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:45)

UNCONTROLLED DOCUMENT

7.4 Classes and Divisions - Definition and Handling Labels

Dangerous Goods are classified according to the potential danger they might cause.

There are nine UN hazard classes in total. Dangerous Goods can be assigned to one or more of these nine UN hazard classes (primary and secondary hazard). Some of the hazard classes are further subdivided into hazard divisions due to the wide scope of hazards within the class. An example of this is Class 1 (Explosives), which is further divided into compatibility groups to ensure safe transportation. Each compatibility group is identified by a letter.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:45)

UNCONTROLLED DOCUMENT

7.4.1 Class 1 – Explosives

1. **Definition**

Articles and substances, which after ignition or initiation during transport, cause projection, fire, smoke, heat or loud noise external to the device.

2. **Examples**

Fireworks, dynamite, ammunition, airbag detonators

3. **Divisions**

Explosives articles and substances are assigned to one of six divisions, depending on the type of hazard they present and to one of thirteen compatibility groups which identify the kinds of explosive articles and substances that are deemed to be compatible.

This class comprises **six divisions**:

1.1 Articles and substances having a mass explosion hazard

1.2 Articles and substances having a projection hazard but not a mass explosion hazard

1.3 Articles and substances having a fire hazard, a minor blast hazard and/or a minor projection hazard but not a mass explosion hazard

1.4 Articles and substances presenting no significant hazard

1.5 Very insensitive substances having a mass explosion hazard

1.6 Extremely insensitive articles which do not have a mass explosion hazard

4. **Forbidden for transport by air**

All of the following Explosives have IATA IMP Code **REX**:

1.1	1.2	1.3 (Except 1.3C and 1.3G)	1.4F	1.5	1.6

There are special Hazard Labels for these Explosives and they **are normally forbidden for transport by air**. Explosives from these Divisions and Compatibility Groups may only be transported with special permission by the competent authorities, and are subject to special arrangements.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:45)

UNCONTROLLED DOCUMENT

5. **Approved for transport by air**

Explosives Division 1.3			
Division	**IMP Code**		
1.3C	RCX		
1.3G	RGX		

Explosives 1.3C and 1.3G are allowed on **Cargo Aircraft Only**.

Explosives Division 1.4			
Division	**IMP Code**		
1.4B	RXB		
1.4C	RCX		
1.4D	RXD		
1.4E	RXE		
1.4G	RXG		
1.4S	RXS		

Explosives of Division 1.4 are allowed on **Cargo Aircraft Only**.

Exception: Division **1.4S** may be loaded on Passenger Aircraft.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:45)

UNCONTROLLED DOCUMENT

7.4.2 Class 2 – Gases

1. **Definition**

All gases are considered to be Dangerous Goods as they are mostly transported under pressure, meaning that there is always the hazard that the receptacle will turn into a projectile if it gets damaged. It might even explode if temperature and pressure differences occur. Other gases are transported in a solution and in that case the packaging could break due to temperature and pressure. Gas can be transported liquefied or refrigerated as well which means that these products are very cold and in case of leakage will damage everything that comes in contact with them. Caution is highly recommended.

2. **Examples**

For **2.1** Hairspray, butane, propane etc

For **2.2** Oxygen, helium, fire extinguishers, cryogenic liquids

For **2.3** Plant pesticide sprays

3. **Divisions**

This class has **3 divisions**:

2.1 Flammable gases: ignitable after being in contact with air or oxygen

2.2 Non-flammable, non-toxic gases: are oxidizing, asphyxiating or extremely cold and do not come under the other divisions

2.3 Toxic gases: pose a serious threat to the health of humans because of their toxicity and/or corrosive nature

4. **Approved for transport by air**

Flammable Gas		
Division	**IMP Code**	
2.1	RFG	

Non-Flammable Gas		
Division	**IMP Code**	
2.2	RNG	

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

Cryogenic Liquid			
Division	**IMP Code**		
2.2	RCL		

The “Cryogenic Liquid” handling label **must** be used **in addition** to the non-flammable gas (division 2.2) hazard label on packages containing cryogenic liquids (Refrigerated liquefied gases).

Toxic Gas			
Division	**IMP Code**		
2.3	RPG		

Toxic Gases of Division 2.3 may **normally** forbidden or to be carried on **Cargo Aircraft Only.** Some might be carried on Passenger Aircraft with prior approval by state of origin.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.4.3 Class 3 – Flammable Liquids

1. **Definition**

Flammable liquids are substances, which at a certain temperature (≤ 60°C) release a flammable gas that can be ignited in air. Their degree of danger depends on their flash and boiling point.

Flammable Liquid Flash-Point and Boiling Point		
Packing Group	Flash-Point closed cup °C (°F)	Initial Boiling Point °C (°F)
I	–	≤35 (95)
II	<23 (73)	>35 (95)
III	≥ 23 (73) but ≤ 60 (140)	> 35 (95)

Flash-point is defined as the lowest temperature at which flammable vapour is given off a liquid in a test vessel in sufficient concentration to be ignited in air when exposed momentarily to a source of ignition.

2. **Examples**

Methanol, ethanol, alcohol, perfume, paint, fuel, varnishes

3. **Divisions**

This class has **no divisions.**

4. **Approved for transport by air**

Flammable Liquid		
Division	**IMP Code**	
3	RFL	

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.4.4 Class 4 – Flammable Solids

1. **Definition**

These substances are solids but also few liquids that are flammable under different conditions; substances liable to spontaneous combustion; substances which, in contact with water, emit flammable gases

2. **Examples**

4.1 Matches, sulphur, desensitized explosives

4.2 White and yellow phosphorus (chemical products)

4.3 Magnesium alloys powder

3. **Divisions**

This class has **3 divisions**:

4.1 Flammable solids: solids, which readily combustible solids and solids which may cause fire through friction

4.2 Substances liable for spontaneous combustion: this division encloses all flammable solids and liquids which do not need an external source to ignite. They react spontaneously on contact with oxygen and/or sunlight

4.3 Substances which, in contact with water, emit flammable gases (dangerous when wet): Substances which, by interaction with water, are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities

4. **Approved for transport by air**

Flammable Solid		
Division	**IMP Code**	
4.1	RFS	

During the course of transport, packages or unit load devices containing self-reactive substances of Division 4.1 must be protected from direct sunlight and all sources of heat and be placed in adequately ventilated areas.

Spontaneously Combustible		
Division	**IMP Code**	
4.2	RSC	

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

Dangerous When Wet		
Division	**IMP Code**	
4.3	RFW	

Remained of this page intentionally left blank.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.4.5 Class 5 – Oxidizing Substances and Organic Peroxides

1. **Definition**

These substances are not necessarily flammable but because they release oxygen they will increase an already existing fire. When in contact with other Dangerous Goods they are likely to start a chemical reaction.

2. **Examples**

Bleachers, fertilizers, chemical products

3. **Divisions**

This class has **2 divisions**:

5.1 Oxidizers: These are substances which in themselves are not necessarily combustible, but may generally cause or contribute to combustion of other material by yielding oxygen

5.2 Organic Peroxides: These substances are thermally unstable. They also yield oxygen and the gas released at that time can cause irritation to the eyes. They are classified into seven types according to the degree of danger (Type A to G; see Appendix C.2 IATA regulations).

4. **Approved for transport by air**

Oxidizer		
Division	**IMP Code**	
5.1	ROX	

Organic Peroxide		
Division	**IMP Code**	
5.2	ROP	

During the course of transport, packages or unit load devices containing organic peroxides of Division 5.2 must be protected from direct sunlight and all sources of heat and be placed in adequately ventilated areas.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.4.6 Class 6 – Toxic and Infectious Substaces

1. **Definition**

These are liquids and solids that are toxic or can cause infections when workers come in contact with them, so they represent a danger to the health.

2. **Examples**

6.1 Pesticides, nicotine, strychnine, arsenic

6.2 Blood, needles, genetic material, skin-tissue, HIV-virus

3. **Divisions**

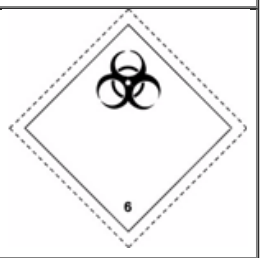
This class has **2 divisions**:

6.1 Toxic substances: liable to cause death or injury or to harm human health if swallowed, inhaled or contacted by the skin (toxic already in small quantities)

6.2 Infectious substances: substances that can cause disease in humans or animals when in contact with them

4. **Approved for transport by air**

Toxic Substance		
Division	**IMP Code**	
6.1	RPB	

Infectious Substance		
Division	**IMP Code**	
6.2	RIS	

Note:

Biological Substances, Category B (UN3373) do not require the above label but must be marked as follows:



UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.4.7 Class 7 – Radioactive Material

1. **Definition**

Radioactive Material means any material containing radio nuclides which is not excepted according to reference 10.0.1.4 of the IATA DGR. These substances can be harmful to the health of humans and animals and can effect photographic or X-ray film.

The radiation from a package containing Radioactive Material of Category II and III is expressed as a **Transport Index** (TI). The higher the index, the more radiation is being emitted.

2. **Examples**

Medicines (e.g. for cancer treatment) and instruments containing radioactive material

3. **Divisions**

This class has **no divisions**

4. **Approved for transport by air**

Radioactive Material, Excepted Package			
Division	**IMP Code**	**Max T.I**	
7	RRE	0.0	

For radioactive material in excepted packages (RRE) only the above handling label is required which shows to the handler that the package contains radioactive material in small quantities and for which not all transport requirements are applicable.

Radioactive Material of Category I-White			
Division	**IMP Code**	**Max T.I**	
7	RRW	0.0	

Radioactive Material of Category I-White **is not subject to distance limitations**. They must not be stowed on the Flight-Deck or in the cabin of passenger aircraft.

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

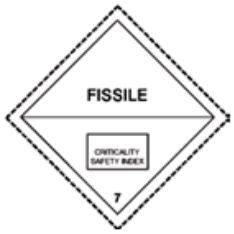
UNCONTROLLED DOCUMENT

Radioactive Material of Category II-Yellow			
Division	**IMP Code**	**Max. T.I**	
7	RRY	1.0	

Radioactive Material of Category III-Yellow			
Division	**IMP Code**	**Max. T.I**	
7	RRY	10.0	

TI more than 10 must be transported under exclusive use and special arrangement.

Radioactive Material of Category II and III-Yellow are subject to loading limitations and **must be loaded in accordance with aircraft specific instructions**. Please see DHL AGOM Aircraft Specification Chapters for more information.

Fissile Material				
Division	**IMP Code**	**Max. CSI**		
7	RRW, RRY	50.0		

Fissile material, other than fissile excepted will require the Criticality Safety Index label additionally to the RRW or RRY labels. A criticality safety index (CSI) needs to be inserted on the label. This value is comparable to the Transport Index but it measures the likelihood of a nuclear reaction inside the material rather than the radiation measured outside the package. When fissile material is accepted special approval of the competent authority may be required.

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.4.8 Class 8 – Corrosives

1. **Definition**

Substances which by chemical action can cause severe damage when in contact with living tissue or, in the case of leakage will materially damage or even destroy, other goods or the means of transport.

2. **Examples**

Sulphuric acid (battery acid), nitric acid, phosphoric acid

3. **Divisions**

This class has no divisions

4. **Approved for transport by air**

Corrosive Material		
Division	**IMP Code**	
8	RCM	

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.4.9 Class 9 – Miscellaneous Dangerous Goods

1. **Definition**

Articles and substances, which during air transport, present a danger not covered by other classes.

2. **Examples**

- Substances dangerous to the environment
- Self-inflating appliances i.e. life jackets
- Motor vehicles, apparatus with batteries
- Magnetic material (MAG)
- Dry Ice (ICE)
- Polystyrene Beads (RSB)
- Lithium Batteries
- Genetically modified micro-organisms (GMMOs) or Genetically modified organisms (GMOs)

3. **Divisions**

This class has no divisions

4. **Approved for transport by air**

Miscellaneous Dangerous Goods		
Division	IMP Codes	Hazard Label
9	RMD ICE RSB	
	RBI RBM RLI RLM	

Note:

Genetically modified micro-organisms (GMMOs) or genetically modified organisms (GMOs) (UN3245) do not require the above label but must be marked as follows:



UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

For magnetized materials the RMD label will be replaced by the “Magnetized Material” handling label. The use of the “Magnetized Material”-Label depends on the classification of this material. This is done on the basis of field strengths. An overview can be found in the following table:

	Classification of magnetized material	**Requirements**
Type 1	Magnetized Materials with field strengths causing a compass deflection of less than 2 degrees at a distance of 2.1 m	Nothing to consider
Type 2	Magnetized Materials with field strengths causing a compass deflection of more than 2 degrees at a distance of 2.1 m but not more than 2 degrees at a distance of 4.6 m	 NOTOC, DGD not required; Statement on AWB: “Magnetized Material”
Type 3	Magnetized Material with field strength sufficient to cause a compass deflection of more than 2 degrees at a distance of 4.6 m.	Such shipments must be accompanied by the required approval from the applicable authority and fulfill the requirements stated therein.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

Lithium Batteries	
Classification	**Mark and Label**
Small lithium metal and lithium ion batteries are excepted from most of the requirements of the ICAO Technical Instructions and IATA DGR provided that they comply with all of the requirements set out in Section II of Packing Instructions 966 and 967 for lithium ion batteries and Section II of Packing Instructions 969 and 970 for lithium metal batteries in the latest edition of the IATA DGR. Packages containing lithium batteries, or lithium batteries contained in, or packed with, equipment that meet the provisions of Section II of these packing instructions are not required to have a Class 9 hazard label and there is no requirement for a Shipper's Declaration for Dangerous Goods for consignments of those batteries. In the additional requirements of Section II the lithium battery mark is required as specified in packing instructions 966, 967, 969 and 970. Packages containing lithium batteries in accordance with Section IB of the applicable packing instructions 965 and 968 are required to have a Class 9 Lithium Batteries label together with the lithium batteries mark and they also require a Shipper's Declaration for Dangerous Goods.	
Lithium metal and lithium ion batteries larger than those described in Section II of the applicable packing instruction must be assigned to Class 9 and consigned as UN3090 (Lithium metal batteries), UN3480 (Lithium ion batteries), UN3091 (Lithium metal batteries contained in equipment or Lithium metal batteries packed with equipment) or UN3481 (Lithium ion batteries contained in equipment or Lithium ion batteries packed with equipment). All applicable requirements contained in the IATA Dangerous Goods Regulations relating to these commodities must be complied with, including the training requirements; a “Shipper’s Declaration for Dangerous Goods” must be issued, and packages must bear the Class 9 – Lithium Batteries hazard label.	

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.4.10 Handling Labels or Marks Identifying Exemption from Specific Regulations

Packages bearing labels and marks as shown below indicate that they contain Dangerous Goods in extremely small quantities which represent such a small hazard during transport that the regulations are less strict with regard to packaging requirements, documentation, mark and labelling.

However, as for the ULD build-up the same stringent rules as for any other Dangerous Goods packages apply, meaning that they have to be loaded following the “First Out” principle, and it is also imperative to fully secure such cargo when loaded in a container or in the bulk compartment of an aircraft.

The label or mark is also to ensure that if the shipment is damaged appropriate emergency action will be taken. Depending on the type of hazardous contents, packages as described above will carry one of the following labels or marks:

Mark and Label	Explanation
	Dangerous Goods in Excepted Quantity mark (REQ)
	“Radioactive Material - Excepted Package” label (RRE)
	Lithium Battery mark
	“Biological Substance, Category B” mark (RDS)
	“Genetically modified micro-organisms” (GMMOs) or “Genetically modified organisms” (GMOs) mark

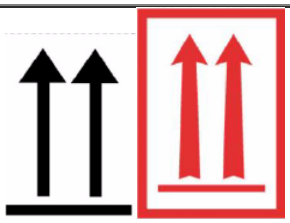
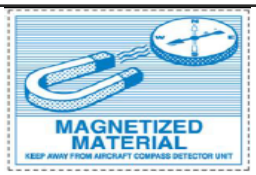
UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.4.11 Subsidiary Hazard Labels

Some Dangerous Goods require more than one hazard label. Generally a secondary hazard label or labels must also be applied for each article and substance having subsidiary hazard. For segregation purposes, both primary hazard and secondary hazard label showing the hazard class/Division number must be observed.

7.4.12 Handling Labels and Marks

Handling Label	Explanation
 **"Package Orientation" label**	This Way Up" labels are required; at least two of these labels must be used. One label must be affixed to each of two opposite sides of the package, with the arrows pointing in the upright position.
 **"Environmentally Hazardous Substances" mark**	Packages containing environmentally hazardous substances must be marked with the "Environmentally Hazardous Substances" mark with the exception of single packagings and combination packagings where such single packagings or the inner packagings of such combination packagings have a net quantity of 5 L or less for liquids or a net quantity of 5 kg or less for solids.
 **RCL Cryogenic Liquid" label**	Gases frozen to extreme temperatures will become liquefied. Extreme care must be used when handling these shipments. The "cryogenic liquid" handling label must be used in addition to the non-flammable gas (division 2.2) hazard label on packages containing cryogenic liquids (Refrigerated liquefied gases). Packages bearing this label must be stowed away from AVI and Hatching Eggs
 **MAG "Magnetized Material" label**	Packages bearing this label must not be loaded in such a position that they will have a significant effect on the aircraft instruments (direct-reading magnetic compasses or master compass detector units). The loading position depends on the type of aircraft used. This label replaces the Class 9 label.
 **"Keep away from heat" label**	During the course of transport, packages or unit load devices containing self-reactive substances of Division 4.1 or organic peroxides of Division 5.2 must be protected from direct sunlight and all sources of heat and be placed in adequately ventilated areas. The "Keep away from heat" label is mandatory in this case

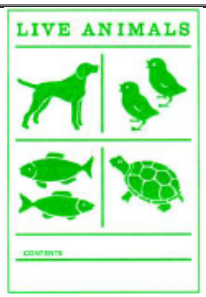
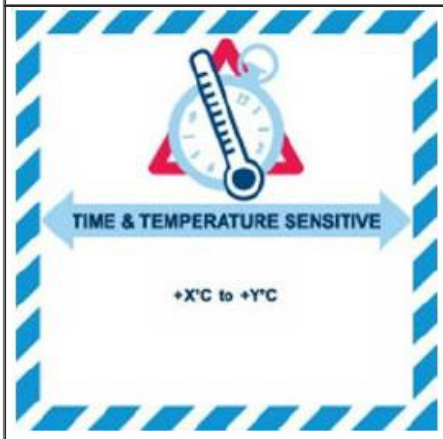
UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.5 Special Handling Labels

Special Handling Label	Explanation
 **“Perishable” label**	All perishable cargo should be labelled with the standard IATA “PERISHABLE” label.
 **“Live Animals” label**	It is mandatory to attach at least one IATA “Live Animals” label properly completed, to each live animal container, unless otherwise stated in the individual container requirements. Animal containers may have the appropriate labelling imprinted or placed on a tag.
 **“Time & Temperature Sensitive’” label**	The "Time and Temperature Sensitive" label is specific to the healthcare industry and must be affixed to shipments booked as temperature controlled cargo.

For loading and Handling of Perishables and Live Animals please act according to IATA 9.3.14 as they are not allowed to be loaded with some types of Dangerous Goods.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.6 IATA IMP Code Directory

Throughout this manual there is continual reference to IATA CARGO International Message Procedure (IMP) Codes or Special Handling Codes. These codes and their meanings are listed below:

DANGEROUS GOODS CODES (IATA CARGO IMP CODES)	
CAO	Cargo Aircraft Only
DGD	Shipper's Declaration for Dangerous Goods
ICE	Carbon dioxide, solid (dry ice)
IMP	Interline Message Procedure
MAG	Magnetized Material
RBI	Fully regulated lithium ion batteries (Class 9, UN3480) as per Section IA and IB of PI 965
RBM	Fully regulated lithium metal batteries (Class 9, UN3090) as per Section IA and IB of PI 968
RCL	Cryogenic Liquid (Packing Instruction 202)
RCM	Corrosive
RCX	Explosives 1.3C
RDS	Biological Substance, Category B (UN3373)
REQ	Dangerous Goods in Excepted Quantities
REX	To be reserved for normally forbidden Explosives, Divisions 1.1, 1.2, 1.3, 1.4F, 1.5 and 1.6
ELI	Lithium ion batteries excepted as per Section II of PI 966 - 967
ELM	Lithium metal batteries excepted as per Section II of PI 969 - 970
RFG	Flammable Gas
RFL	Flammable Liquid
RFS	Flammable Solid
RFW	Dangerous When Wet
RGX	Explosives 1.3G
RIS	Infectious Substance (UN2814 or UN2900)
RLI	Fully regulated lithium ion batteries (Class 9, UN3481) as per Section I of PI 966 and PI 967
RLM	Fully regulated lithium metal batteries (Class 9, UN3091) as per Section I of PI 969 and PI 970
RMD	Miscellaneous Dangerous Goods
RNG	Non-Flammable Non-toxic Gas
ROP	Organic Peroxide
ROX	Oxidizer
RPB	Toxic substance
RPG	Toxic Gas
RRE	Excepted Packages of Radioactive Material
RRW	Radioactive Material Category I-White
RRY	Radioactive Material Categories II-Yellow and III-Yellow
RSB	Polymeric Beads/Plastics Moulding Compound (Packing Instruction 957)
RSC	Spontaneously Combustible
RX *	Explosives 1.4 (3rd letter shows compatibility group eg. RXD, RXS)

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

SPECIAL HANDLING CODES	
AVI	Live animals
EAT	Foodstuff
PER	Perishable cargo (general)
PES	Fresh Fish / Seafood
PEM	Meat
PEF	Flowers
PEP	Fruit and vegetables
HEG	Hatching Eggs
LHO	Live human organs
FIL	Undeveloped photographic films and plates
HUM	Human remains

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.7 Handling of Dangerous Goods

The correct handling of Dangerous Goods is essential if adequate safety standards are to be maintained. The various Dangerous Goods packaging are strong; they are designed and tested to withstand all conditions normal in air transport. However, normal conditions do not include being dropped off High-Loaders, nor being run over by forklift trucks.

Accidents do occur, however, and packaging does sometimes fail. All staff must therefore ensure that these packages are not loaded onto our aircraft, or aircraft for which we provide ground handling.

To prevent damaged Dangerous Goods being loaded, and also to ensure that damage has not occurred during the flight, the following mandatory integrity checks must be carried out.

- Packages or overpacks are not loaded onto an aircraft or into a ULD unless they have been inspected immediately prior to loading and found free from visible leaks, fumes or damage.
- When offloading packages or overpacks containing Dangerous Goods from the aircraft they must be checked for signs of damage, leakage, fumes or contamination. Also check the aircraft/ULD hold for evidence of leakage or spillage

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.7.1 Loading Onboard Aircraft

Correct loading of Dangerous Goods is essential as they are to be carried safely. They must never be loaded on the flight deck or in the passenger cabin of passenger aircraft. Although mentioned elsewhere in these procedures remember:



- Never load a damaged package on board an aircraft or into an ULD. When damage is discovered always check the rest of the consignment
- If a damaged package is leaking, fuming or burning call in the local Emergency Services
- Any incident involving damage, leaking, fuming, fire or injury must be reported to a Supervisor and the appropriate Incident / Accident form(s) completed
- Local procedures must be in place in case of an emergency / incident / accident

The hold stowage position for all Dangerous Goods is published in all Aircraft Authorised Manuals and also DHLAGOM Aircraft Technical Specification Chapters.

The Aircraft Load Plan for each flight will state the required loading position for all Dangerous Goods included in the load. These instructions must be complied with. If in any doubt about these instructions staff should consult with a Supervisor or Load Control before loading.

General information and restrictions for different classes of dangerous goods, together with examples of applicable warning labels are shown in Chapter **7.4 - Classes and Divisions - Definition and Handling Labels**.

1. **Securing of Dangerous Goods**

All packages must be secured in a manner that will prevent any movement during warehousing and/or ground/air transportation.

Dangerous Goods shall be secured to prevent any movement and damage by other shipments or cargo during flight.

This will be done by lashing/strapping loose loaded pieces in ULD’s.

In some circumstances, however, lashing/strapping of individual pieces may not be necessary:

- If shipments are placed on an air pallet and are properly secured using the pallet net.
- If shipments are placed in the bulk hold of an aircraft and the hold is 100% volumetrically full (shipments will not move in any direction during flight.).
- If shipments are placed in a container which is 100% volumetrically full (shipments will not move in any direction during flight).

If none of the above three exception conditions can be met, then the packages of Dangerous Goods must be protected from being damaged including the movement of baggage, mail, stores or other cargo either using certified straps, adequate lashing rope or any other available securing material , depending on the weight of the pieces.

In all cases, care must be taken to ensure that the minimum required segregation rules are applied for non-compatible shipments. The minimum distance in this situation is 1m (100cm).

Handling labels must be respected at all times, this includes all ‘This Way Up’ labels, regardless of the increased effort involved to accommodate such requirements during the ULD build-up process.

NOTE: Even if a container is flagged as ‘100% volumetrically full’, it may still be necessary to use additional restraints to secure Dangerous Goods shipments from being damaged by any movement during transportation.

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

2. **Dangerous Goods in ULDs**

Each ULD containing Dangerous Goods requiring a hazard label must clearly display on its exterior an indication that Dangerous Goods are loaded inside. This is done through the use of a Dangerous Goods ULD tag. There are two approved methods for displaying a Dangerous Goods ULD tag:

Method 1

- The official red-hatched border Dangerous Goods ULD tag must be completely filled out, with the primary and subsidiary hazard class(es) or division(s) number(s) clearly handwritten or printed in the appropriate space provided.
- The red hatched borders around the tag must be clearly visible and must not be damaged / altered in any way.
- The tag must be signed by an appropriately trained and certified member of staff to confirm that all goods have been loaded according to ICAO/IATA.
- The name and signature at the bottom of the Dangerous Good tag must be clearly visible at all times.
- The tag must be placed inside the pouch at the very front so that it is clearly visible and is not blocked or obscured by any other piece of paper or other material.

Method 2

- The HUID is affixed to the Dangerous Goods ULD tag using glue or staples - it is not enough to simply put the two documents together in the pouch, they must be properly attached to one another first.
- The red hatched boarders of the Dangerous Goods ULD tag must be clearly visible and must not be damaged / altered in any way.
- The tag must be signed by an appropriately trained and certified member of staff to confirm that all goods have been loaded according to ICAO/IATA.
- The name and signature at the bottom of the Dangerous Goods tag must be clearly visible at all times.
- The tag must be placed inside the pouch at the very front so that it is clearly visible and is not blocked or obscured by any other pieced of paper or other material.

DHL procedures also require the placement of a special tag in case of radioactive material, this in order to ensure that people are aware the ULD contains radioactive material and keep distance to avoid exposure to radiation.

An example of both tags is shown in the appendix I of this document (**Appendix I**).

2.1 **Use of DG Tags**

The red-hatched ULD tag must only be used for ULD's containing Dangerous Goods requiring hazard labels.

For ULD's with DG and AVI/PER, use the red-hatched DG tag and make sure that AVI/PER is mentioned in the flagging only.

For ULDs with AVI only, optionally use the green-hatched AVI tag (template available on the RCG smart connect page). You may use a documents pouch, or similar, to secure it against open weather conditions. The tag must be signed by an appropriately trained and certified member of staff to confirm that there is no evidence that the animals loaded on/in the ULD are in conditions that hypothesise they are not fit for travel, that all containers are blocked or braced and that all incompatibles have been loaded in compliance with IATA LAR.

For ULDs with *PER or *PES only, a green-hatched tag is not mandatory.

See **Appendix I** 3. Dangerous Goods ULD Tag Job Aid for further instructions of use.

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.8 Special Load Notification To Captain

7.8.1 Introduction

It is a mandatory requirement that Aircraft Captains must be notified of any Dangerous Goods and/or any other special cargo (live animals, perishable cargo and human remains) that are to be carried as cargo as soon as practicable prior to departure of the aircraft. They must be advised of live animals & perishable cargo especially as the hold ventilation and heating systems are controlled from the flight deck on some aircraft. The information must be presented on a dedicated form, a “Notification to Captain”. A Notification to Captain (NOTOC) will be made to notify the captain of which Dangerous Goods and other special cargo are loaded where in the aircraft. This also includes information about Dangerous Goods and other special cargo loaded at a previous departure point and which are to be carried on the subsequent flight.

An adequate form fulfilling the ADR requirements also exists for road transport as a “Notification to Driver” (NOTOD).

7.8.2 Responsibilities for Completion of NOTOC

An IATA trained and certified person (DG/ other special cargo handler) is responsible for raising the Notification to Captain (NOTOC) for the Dangerous Goods and/ or other special cargo loaded on each aircraft. The NOTOC must be presented to and signed by a person responsible for loading the aircraft who in turn must ensure that copies are delivered to and signed by the aircraft captain together with the load sheet.

It is the responsibility of local management to specify the responsibilities detailed above. Such instructions must clearly specify who is responsible for delivery of the NOTOC to the aircraft.

It is mandatory to generate the NOTOC electronically in the online Dangerous Goods Transport System (RCTS).
The RCTS system can be accessed as follows:

- Via the following link: **https://rcts.dhl.com**
- On the login page you can also find a link to ask access to the system “User Login Request”.
- On the Global RCG Smart connect page.

https://dpdhl.sharepoint.com/sites/Global-Restricted-Commodities/sitepages/RCG-Applications.aspx

If you get lost in the system, you can also consult the RCTS user manual and Frequently Asked Questions on this page.

In case of RCTS failure, a manual version of the NOTOC shall be created for all Radioactive Material and Live Animals shipments as these must continue to travel to their final destination. Additionally, an email must be sent to the final destination station to notify them when a manual NOTOC is created. A template of the manual version of the NOTOC can be found on the Audit Smart Connect page: **https://dpdhl.sharepoint.com/sites/Global-Restricted-Commodities/sitepages/RCG-Applications.aspx**

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

For all other Dangerous Goods shipments, in case of RCTS failure the following procedure applies:

- If the shipments are already loaded onto the aircraft:
  a. If the shipments are in transit where the inbound and outbound movements have the same flight number, create the outbound NOTOC by performing a pen & ink change to the Origin & Destination on the inbound NOTOC.
  b. If the shipments are in transit where the inbound and outbound movements are on different flight numbers, consider creating an outbound NOTOC manually. Evaluate the impact on OTD and Service and take the action with the least impact: i.e. either create a NOTOC manually or offload the shipments.
  c. If the shipments are originating at the station, consider creating a NOTOC manually. Evaluate the impact on OTD and Service and take the action with the least impact: i.e. either create a NOTOC manually or offload the shipments.
- If the shipments are not yet loaded onto the aircraft, the shipments shall not be loaded.

The following shipments/pieces must be created and transferred to the correct movement in order to generate a NOTOC/NOTOD document:

- Dangerous Goods shipments requiring a Shipper's Declaration
- Dry Ice
- Radioactive Material in Expected Quantities (RRE)
- Live Animals*
- Human Remains*
- Perishable Cargo*

Note: *See **7.13.2 - Other Special Loads**

Dry Ice shipments/pieces and Lithium Ion/Metal Batteries under Section IA/IB of PI965 and PI968 will only show high level information in the NOTOC summary sheet. Details of these shipments appear in the Dry Ice list and in the Lithium Battery List of the movement, which may be printed.

Lithium Battery List and the Dry Ice List are not part of the NOTOC and are not required to be printed, but can be provided to the crew upon request.

The following shipments/pieces may be created and transferred to the correct movement in order to increase visibility and provide pre-alert:

- Dangerous Goods in Excepted Quantities
- Lithium Batteries in Compliance with Section II
- UN3373 Biological Substances Category B
- UN3245 Genetically Modified (Micro-)Organisms

These shipments will not show in the NOTOC document, but they will be visible in the movement package list in RCTS and can be transferred to another movement.

It is mandatory to digitally sign every NOTOC containing shipments/pieces of Dangerous Goods or other special load, independent of whether the shipments are shown on the NOTOC document. This is to guarantee ownership transfer to the subsequent location.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.8.3 Distribution of NOTOC

The NOTOC must consist of minimum two copies: one must be presented to the captain and one to be held on file at the originating station after the required signatures have been obtained. The NOTOC must be presented to the captain in person and signed by the captain at the same time as the load-sheet and loading plan.

Personnel with responsibilities for operational control of the aircraft must be provided with the same information. These personnel must be specified by each operator in their operations manual or other appropriate manuals.

A summary overview of all Dangerous Goods and/or other special cargo on the flight is part of the NOTOC. This summary sheet can be used to check the specific aircraft loading requirements such as the total weight of Dry Ice loaded per compartment, the required temperature range for live animals or perishable cargo etc.

7.8.3.1 Nil NOTOC

If no Dangerous Goods or other special cargo are placed on the aircraft, a NOTOC does not need to be created / signed in RCTS. If such a NOTOC is generated, it will automatically show “no dangerous goods on board” in the column of “Proper shipping name of article” and “no special load on board” in the column of “Contents” once closed.

Unless specifically requested by the operator, there is no requirement to create / print and hand over a copy of a NIL NOTOC to the flight crew or to be held at the origin station.

Note:

As the NOTOC contains both Dangerous Goods and Special Cargo information, it is important to remember that if either of these types of materials are onboard, a NOTOC shall be produced and distributed as per **7.8 - Special Load Notification To Captain** (NOTOC).

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.8.4 Completion of NOTOC

There is only one format available for the NOTOC. This can be found in the RCTS system. Under point **7.8.6 - Multi-sector Flights** you can find an example of the current format of the transport document. The following information must be included as detailed as possible.

1. TELEPHONE NUMBER where a copy of this NOTOC can be obtained in case of emergency
In case of emergency ATC can obtain a fax copy instead of getting all information from the captain over the radio during airborne.

2. STATION OF LOADING / UNLOADING
The Station where the goods get loaded and unloaded

3. FLIGHT
Flight number

4. DATE
Departure date of the flight

5. AIRCRAFTREG
Registration number of the aircraft

6. DST
Final destination code of the shipment (IATA three-letter Airport Code)

7. AIR WAYBILL Number
Air waybill number of each shipment containing Dangerous Goods

8. Number of packages
Per air waybill, number of packages for each UN number

9. UN or ID Number
UN numbers for each air waybill (as per shipper's declaration)

10. Proper shipping name of article
Corresponding proper shipping name for each UN number, including technical name if required and the statements "all packed in one" or "overpack" (as per shipper's declaration)

11. Division
Primary hazard (as per shipper's declaration)

12. Sub hazard
Secondary hazard, if applicable (as per shipper's declaration)

13. PG or Cat. RRY
Packing Group, if applicable or for radioactive material the category of the label (as per shipper's declaration)

14. NET QTY / TI of each pack
Net quantity per package in kilograms or litres or for radioactive material the transport index per package

15. CODE
Cargo IMP code as per **7.6 - IATA IMP Code Directory**. This is the code that represents the primary hazard of the product

16. CAO
Indicate Y(es) for Cargo Aircraft Only packages and N(o) for packages suitable to transport on both Passenger and Cargo aircrafts

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

17. ERG code

Enter emergency drill code for the captain (see column N, blue pages of the “IATA Dangerous Goods Regulations” manual)

18. ULD Number

Enter the ULD number in which the Dangerous Goods have been loaded.

19. Position

Enter the position where the ULD is loaded on the aircraft.

20. OTHER SPECIAL LOAD

This part is used for non-Dangerous Goods loaded on board of the aircraft of which you must or want to inform the captain about. This is special cargo such as live animals, perishable cargo and human remains. For all special cargo, the following information is needed on the NOTOC:

DST: Final destination code of shipment (IATA three-letter Airport Code)

AIR WAYBILL number: Air waybill number of each shipment containing live animals, perishable cargo or human remains

Number of packages: Per air waybill, number of packages containing live animals, perishable cargo or human remains

Contents: Common and/or scientific name of the animals involved or common name of perishable cargo involved or the words “Human Remains” for each air waybill

Temperature: Required temperature range for the respective live animal or perishable cargo (e.g. min: 10°C max: 30°C)

Quantity/package: The quantity of animals (number of animals or weight) or weight of the perishable cargo or human remains per package

CODE: Cargo IMP code for live animals (AVI), hatching eggs (HEG), human remains (HUM), perishable cargo (PER, PEP, PES, PEM, PEF, PEA, EAT) or live human organs (LHO), frozen goods (FRI, FRO), cool goods (COL), pharmaceuticals (PIL)

ULD number: ULD number in which the live animals or perishable cargo or human remains have been loaded

Position: Position where the ULD is loaded on the aircraft

21. LOADING DECLARATIONS

The signature from the responsible person for loading (load master) is required to confirm that the items have been loaded according to the current loading manual of the carrying airline in the position indicated on the NOTOC and that there is no evidence of any damage or leakage from the packages and ULDs loaded on the aircraft.

Note:

All NOTOC’s, including the empty NOTOC with the sentences “no dangerous goods in accordance to requirements of IATA DGR 9.5 on board” and “no special load on board”, require this signature.

22. CAPTAINS SIGNATURE

The captain needs to state his full name and sign here, to certify he has received and read the information contained in the NOTOC.

23. ADDITIONAL INFORMATION

Optional, to be used to convey any relevant information to the captain not covered by mandatory requirement.

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.8.5 State Exemptions

When Dangerous Goods are being shipped under a state exemption, reference must appear on the NOTOC. This information will be added in the row with additional information.

7.8.6 Multi-sector Flights

On departure of subsequent sectors of a multi sector flight the person responsible for loading the aircraft MUST ensure that the captain has received a newly created NOTOC, which combines information about Dangerous Goods and other special cargo loaded at a previous departure point that remained on the flight and the newly loaded material

Pen and ink changes to through flights with no changes are not acceptable.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

Example of NOTOC

PAGE OF	NOTIFICATION TO CAPTAIN - SPECIAL LOAD	
Telephone number where a copy of this NOTOC can be obtained in case of emergency:		
STATION OF LOADING / UNLOADING:	FLIGHT:	DATE:	AIRCRAFT REGISTRATION: 9VDHA

DANGEROUS GOODS

DST	AIR WAYBILL	UN / ID NUMBER	PROPER SHIPPING NAME OF ARTICLE	CLASS / DIVISION (SUB HAZARD)	PG OR CAT. RRY	NUMBER OF PACKAGES	NET QTY / TI OF EACH PACKAGE	CAO	CAO ACCESSIBLE/ CLASS C COMP	STATE EXEMPTION/ AUTHORIZATION	ERG CODE	ULD NUMBER	POSITION

OTHER SPECIAL LOAD

DST	AIR WAYBILL	NUMBER OF PACKAGES	CONTENTS	TEMPERATURE	QUANTITY / PACKAGE	CODE	ULD NUMBER	POSITION

ADDITIONAL INFORMATION

DST	AIR WAYBILL	CONTENTS

SUBLIMATION RATE SUMMARY

POSITION	ULD NUMBER	Sublimation Rate in Kg			Total Weight
		2%	1%	0.37%	
Grand TOTAL		0.00 kg	0.00 kg	0.00 kg	0.00 kg

SIGNED CONFIRMATION

RESPONSIBLE PERSON FOR LOADING		PILOT IN COMMAND	
The items have been loaded according to the current loading manual of the carrying airline in the position indicated above. There is no evidence of any damage or leakage from the packages and ULDs loaded on the aircraft.	Signature	I certify that I have read the information contained herein	Signature

Printed on:
Revision Number

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

Example of NOTOC Summary Sheet

NOTIFICATION TO CAPTAIN - SUMMARY SHEET																		
Telephone number where a copy of this NOTOC can be obtained in case of emergency:																		
STATION OF LOADING / UNLOADING:			FLIGHT:			DATE:			AIRCRAFT REGISTRATION:									
GOODS SUMMARY																		
POSITION	ULD NUMBER	CAO	CAO ACCESSIBLE/ CLASS C COMP*	CLASS 1	CLASS 2	CLASS 3	CLASS 4	CLASS 5	DIVISION 6.1	DIVISION 6.2	CLASS 7	CLASS 8	CLASS 9					SPECIAL LOAD
													OTHER	DRY ICE	LITHIUM METAL BATTERIES		LITHIUM ION BATTERIES	
															SECTION IA & IB CAO	SECTION II	SECTION IA & IB CAO	SECTION II
														UN1845	UN3090	UN3091	UN3480	UN3481
FLIGHT TOTAL				0.00 kg	0.00 kg	0.00 kg	0.00 kg	0.00 kg	0.00 kg	0.00 kg	0,00 TI / 0,00 CSI	0.00 kg	0.00 kg	0.00 kg	0.00 kg	0.00 kg	0.00 kg	0.00 kg	
ERG CODES																		

All listed goods on this NOTOC have been accepted in accordance with the ICAO / IATA regulations and the required documentation.
Numbers in this summary are rounded up to 2 decimals, separated with "." (IATA preferred number format).
The transport document is created by:

DRILL NUMBER	INHERENT RISK	RISK TO AIRCRAFT	RISK TO OCCUPANTS	SPILL OR LEAK PROCEDURE	FIRE FIGHTING PROCEDURE	ADDITIONAL CONSIDERATIONS

DRILL LETTER	ADDITIONAL RISK

* CAO packages must be loaded so they are accessible during flight, or may be loaded inaccessible in a Class C compartment providing the smoke detection/fire suppression system is serviceable.
This does not apply to:

- UN 3529, Engine, internal combustion, flammable gas powered or Engine, fuel cell, flammable gas powered or Machinery, internal combustion, flammable gas powered or Machinery, fuel cell, flammable gas powered;
- flammable liquids (Class 3), Packing Group III, other than those with a subsidiary hazard of Class 8 or UN 3528, Engine, internal combustion, flammable liquid powered or Engine, fuel cell, flammable liquid powered or Machinery, internal combustion, flammable liquid powered or Machinery, fuel cell, flammable liquid powered;
- toxic substances (Division 6.1) with no subsidiary hazard other than Class 3;
- infectious substances (Division 6.2);
- radioactive materials (Class 7);
- miscellaneous dangerous goods (Class 9).

Note: Depending on the Operator and/or State Variations additional special load requirements may be applicable (e.g. Lithium Batteries Class 9, USG-13). Refer to IATA DGR and GSAM.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.9 Loading Precaution for Incompatible Loads

7.9.1 Incompatibility Chart

To see which substances need to be separated, use the incompatibility table below. If the class/Division is not mentioned on the table no segregation is necessary. Don't forget to check all labels on the package, this means both primary and secondary hazard.

Hazard Class / Division		1.3C	1.3G	1.4B	1.4C	1.4D	1.4E	1.4G	2.1	2.2	2.2	2.3	3	4.1	4.2	4.3	5.1	5.2	6.1	6.2	7	8	9	9						
	IATA IMP Code	RCX	RGX	RXB	RXC	RXD	RXE	RXG	RFG	RNG	RCL	RPG	RFL	RFS	RSC	RFW	ROX	ROP	RPB	RIS	RRY	RCM	RBI/RBM RLI/RLM	ICE	FIL	HUM	EAT PEM PES PEP	HEG	AVI	LHO	PEF
1.3C	RCX			2					1	1	1	1	1	1	1	1	1					1	2								
1.3G	RGX			2					1	1	1	1	1	1	1	1	1					1	2								
1.4B	RXB	2	2		2	2	2	2	1	1	1	1	1	1	1	1	1					1	2								
1.4C	RXC			2					1	1	1	1	1	1	1	1	1					1	2								
1.4D	RXD			2					1	1	1	1	1	1	1	1	1					1	2								
1.4E	RXE			2					1	1	1	1	1	1	1	1	1					1	2								
1.4G	RXG			2					1	1	1	1	1	1	1	1	1					1	2								
2.1	RFG	1	1	1	1	1	1	1															2								
2.2	RNG	1	1	1	1	1	1	1																							
2.2	RCL	1	1	1	1	1	1	1																				6	6		
2.3	RPG	1	1	1	1	1	1	1																						2	
3	RFL	1	1	1	1	1	1	1									1						2								
4.1	RFS	1	1	1	1	1	1	1															2								
4.2	RSC	1	1	1	1	1	1	1									1														
4.3	RFW	1	1	1	1	1	1	1														1									
5.1	ROX	1	1	1	1	1	1	1					1		1								2								
5.2	ROP	1	1	1	1	1	1	1																							
6.1	RPB																													2	
6.2	RIS																													2	
7	RRY																								4			5	5	5	
8	RCM	1	1	1	1	1	1	1								1															
9	RBI/RBM RLI/RLM	2	2	2	2	2	2	2	2				2	2			2														
9	ICE																											6	6		
	FIL																				4										
	HUM																										3		3	3	
	EAT PEM PES PEP																									3	8		3	3	8
	HEG										6										5			6				7			
	AVI										6										5			6		3	3	7	3	3	
	LHO											2							2	2	5					3	3		3		
	PEF																										8				

Notes:

- Division 1.4S has no incompatibilities.
- During acceptance and storage of the goods, incompatible pieces must be separated from each other.

It is not permitted to load live animals in closed ULDs, except those animals that are allowed according to the applicable container requirement specified in the IATA Live Animal Regulations. The segregation as detailed above must be respected.

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

Rule 1:

Packages containing Dangerous Goods, which might react dangerously with each other, must not be stowed on an aircraft next to each other or in a position that would allow interaction between them in the event of leakage. To maintain acceptable segregation between packages containing Dangerous Goods having different hazards, the segregation requirements shown in Table 9.3.A IATA DGR must be observed. The segregation requirements apply based on all hazard labels attached to the package, irrespective of whether the hazard is the primary or subsidiary hazard.

A minimum of 100 cm must be maintained between incompatible materials. Space in-between may be separated with non-hazardous freight.
Whenever possible, incompatible Dangerous Goods should be loaded on different edges of the ULD.

Rule 2:

Do not load in the same bulk compartment/bulk hold or ULD.

When loaded on separate pallets, do not load the pallets next to each other and keep a minimum separation of one loading position.

When loaded on the same aircraft with explosives other than Division 1.4S, Division 1.4B explosives must be loaded into separate ULDs and when stowed aboard the aircraft, the ULDs must be separated by other cargo with a minimum separation **distance of 200 cm.**

Lithium batteries in section I (RLI/RLM), IA and IB (RBI/RBM) must not be loaded in the same bulk compartment/bulk hold or ULD together with: RCX, RGX, RXB, RXC, RXD, RXE, RXG, RFG, RFL, RFS, or ROX.

Rule 3:

Do not load animals which are natural enemies close to each other.

Do not load male and female mammals together.

Do not load animals in quarantine and regular animals together.

Do not load Live Animals with intensive smell into the same aircraft compartment or ULD with EAT, PEM, PES or PEP.

When carrying horses, load males forward of females.

As a general rule, do not load animals together that do not have the same health status. Animals with different or unknown health- or epidemic status require separate means of transportation or a hermetically sealed territorial segregation to prevent the contact or transmission of pathogens across the airspace.

Do not load HUM in the same aircraft compartment or ULD as AVI, EAT, PEM, PES, PEP or LHO

Do not load LHO in the same aircraft compartment or ULD as AVI, EAT, PEM, PES, PEP or HUM

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

Rule 4:

The following minimum distances between radioactive material Category II and III-Yellow (RRY) and undeveloped film (FIL) must be observed. The distances are valid horizontally and vertically.

Duration of Carriage

Total sum of TI	2 hours or less	2 – 4 hours	4 – 8 hours	8 – 12 hours	12 – 24 hours	24 – 48 hours
	meters	meters	meters	meters	meters	meters
1	0.4	0.6	0.9	1.1	1.5	2.2
2	0.6	0.8	1.2	1.5	2.2	3.1
3	0.7	1.0	1.5	1.8	2.6	3.8
4	0.8	1.2	1.7	2.2	3.1	4.4
5	0.8	1.3	1.9	2.4	3.4	4.8
10	1.4	2.0	2.8	3.5	4.9	6.9
20	2.0	2.8	4.0	4.9	6.9	10.0
30	2.4	3.5	4.9	6.0	8.6	12.0
40	2.9	4.0	5.7	6.9	10.0	14.0
50	3.2	4.5	6.3	7.9	11.0	16.0

For segregation of RRY and FIL when loaded on separate decks, refer to DHL AGOM Aircraft Specification Chapters for aircraft specific information.

Rule 5:

Radioactive Materials Category II and III must not be loaded in the same ULD with Live Animals (AVI), Hatching Eggs (HEG) and Live Human Organs (LHO)

Do not load the ULDs next to each other and keep a minimum separation of one loading position.
As for the vertical spacing, please refer to DHL AGOM Aircraft Specification Chapters for aircraft specific information.

Rule 6:

“Non-ventilated” hold/compartment

Do not load Dry Ice and Live Animals together in the same hold or compartment.

Do not load RCL and Live Animals together in the same hold or compartment.

“Ventilated” hold/compartment

- Load AVI forward of ICE or RCL
- Load AVI higher than ICE or RCL
- Keep a minimum distance of one loading position

Exceptions

- Animals allowed to be loaded in a closed ULD according to the applicable Container Requirement specified in IATA Live Animal Regulations may be loaded in the same hold or compartment with Dry Ice. In this case a minimum distance of 50 cm must be kept and AVI must be loaded higher than ICE.

Note: Be aware that for insects, the use of dry ice within the package may be permitted (e.g. as coolant for bees). In this case all other requirements for the transport of UN1845 must be met.

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

Rule 7:

Do not load Hatching Eggs and Day-Old Chicken in the same bulk compartment or on the same pallet.

In ventilated ULD compartments:

- Load Hatching Eggs forward of Day-Old Chicken and keep a minimum distance of one position between the ULDs.

Rule 8:

Separate different types of perishable goods. Specific incompatibility and segregation requirements can be found in IATA Perishable Cargo Regulation Table E.2.A.

Flowers (PEF) must be separated from fruits and vegetables (PEP).

In case of incompatibility or segregation requirement do not load in the same bulk compartment or ULD.

When loaded on separate open pallets, do not load the pallets next to each other and keep a minimum separation of one position.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.10 Handling of Damaged Dangerous Goods

7.10.1 Damaged Packages – Safety Precautions

Dangerous Goods packages showing signs of leakage, fumes or other evidence of damage must be removed to a safe isolated place, preferably in the open air.

Wherever possible, remotely operated mechanical handling devices, such as a fork-lift truck, should be used to remove damaged packages so as to minimise danger from fumes, or skin or clothing contact with material that may be dangerous. No attempt must be made to open damaged packages.

In all cases of doubt call the Airport or Local Fire Service, who, in most countries, have access to a Hazardous Identification Scheme detailing the precautions measures necessary when delaying with spillages or other incidents involving hazardous chemicals or other materials. The Aircraft Captain or Engineer responsible for handling the aircraft must be told of all incidents involving spillage which has occurred inside the aircraft.

The position where the Dangerous Goods or ULD was stowed on the aircraft must be inspected for damage or contamination and any hazardous contamination removed. Therefore, the Airline must immediately be notified about the occurrence and the Airline must agree on next course of action. Avoid unnecessary exposure to staff to any potential health and safety hazard.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.10.2 Damage to Radioactive Packages – Safety Precautions

In the unlikely event a package with radioactive material is damaged or leaking, or suspected that it may have leaked or been damaged, precautions/actions should be taken:

- Isolate the consignment at once and keep personnel away until qualified persons with proper equipment give instructions or safe handling and decontamination.
- Avoid contact or inhalation of the material if the inner container is damaged.
- A qualified person must, as soon as possible, assess the extent of contamination and resultant radiation exposure of the package as well as the aircraft, aircraft equipment, adjacent loading and unloading areas and, if necessary all other material which has been carried on the aircraft.
- According to the location of the aircraft notify the appropriate National Authority, and/or the Airport Authority or otherwise as required by local law/regulations. Seek technical assistance from qualified radiochemical authorities such as the Atomic Energy Centre, Military, Civil Defense of Fire Service, Hospital Medical Authorities etc.
- Damaged or leaking radioactive packages in excess of allowable limits for normal conditions of transport may be removed to an acceptable interim location only under supervision and must not be forwarded until repaired or reconditioned and decontaminated.
- Any aircraft (except dedicated to the transport of radioactive material under exclusive use) or equipment or part thereof which has become contaminated above the limits as specified in the IATA DGR or which shows a dose rate in excess 5μSv/h at the surface, must be decontaminated as soon as possible by appropriately qualified personnel.
- The aircraft or equipment or part thereof must not be re-used (must be taken out of service) unless the non-fixed contamination does not exceed the limits specified in the IATA DGR Manual, and the dose rate resulting from the fixed contamination on the surfaces after decontamination is less than taken out of service for evaluation by appropriate qualified personnel 5μSv/h at the surface.

7.10.3 Replacement of Labels

When an operator discovers that labels have become lost, detached or illegible, he must replace them in accordance with the information provided on the “Shipper's Declaration for Dangerous Goods”, and in compliance with the applicable legal provisions. This requirement does not apply where the labels are found to be missing or illegible at time of acceptance.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.10.4 Repackaging of Dangerous Goods Shipments

It is not permitted to repack any Dangerous Goods in general.

Following exemption may be considered:

Slightly damaged dry ice packages may be repaired using tapes. Dry ice packages totally crashed irreparable must be destroyed.

If the shipper provides DHL with a written instruction “to be packed on my behalf” and a new fully marked and labelled package then DHL may be enabled to repack DG material accordingly. A written and signed permission from the shipper must be attached.

If a Dangerous Goods shipment is classified according to IATA but are not subject to ADR is found to be damaged prior final delivery on road the shipment may be repacked and forward per road (it must be sure that this will not fly).

Damaged Lithium Battery Section II packages must be inspected for battery damage. Batteries that are damaged are forbidden to be further transported and must be disposed. If the batteries are not compromised, the shipment may be repacked according to the respective Packing Instructions. Only IATA certified staff may conduct repacks.

Shipments falling under SP67 if stated as such on the Waybill can also be repacked and forwarded by air.

7.10.5 Salvage Packaging

Damaged, defective, leaking or non-conforming packages or Dangerous Goods that have spilled or leaked may be transported in salvage packaging’s meeting the requirements of IATA DGR.

These salvage packaging’s may be used provided that appropriate measures are taken to prevent excessive movement of the damaged or leaking packages within the salvage packaging and that when the salvage packaging contains liquids, sufficient absorbent material is added to eliminate the presence of free liquid.

The shipper must also ensure that all applicable requirements of these Regulations are met. Prior approval from the appropriate national authority must be obtained to ship salvage packagings.

Salvage packagings must be single packaging’s of a material resistant to any chemical or other action of the leaking or spilled Dangerous Goods. Not more than one damaged, defective or leaking package of Dangerous Goods may be packed in any one of such single packagings.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.11 Dangerous Goods Carried by Passengers and Crew

Under normal circumstances, Dangerous Goods are forbidden in or as carry-on luggage, checked baggage or on one's person. However under certain conditions, some of them are considered acceptable and therefore exempted from the IATA Regulations as per IATA DGR Table 2.3A shown below:.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

1. **Dangerous Goods carried by Passengers and Crew**

TABLE 2.3.A
Provisions for Dangerous Goods Carried by Passengers or Crew
(Subsection 2.3)

Dangerous goods must not be carried in or as passengers or crew, checked or carry-on baggage, except as otherwise provided below. Dangerous goods permitted in carry-on baggage are also permitted "on one's person", except where otherwise specified.

	The pilot-in-command must be informed of the location	Permitted in or as carry-on baggage	Permitted in or as checked baggage	The approval of the operator is required
△ **Alcoholic beverages**, when in retail packagings, containing more than 24% but not more than 70% alcohol by volume, in receptacles not exceeding 5 L, with a total net quantity per person of 5 L.	NO	YES	YES	NO
Note: *Alcoholic beverages containing 24% or less alcohol by volume are not subject to any restrictions.*				
Ammunition, securely packaged (in Div. 1.4S, UN 0012 or UN 0014 only), in quantities not exceeding 5 kg gross weight per person for that person's own use. Allowances for more than one person must not be combined into one or more packages.	YES	YES	NO	NO
Avalanche rescue backpack, one (1) per person, containing cartridges of compressed gas in Div. 2.2. May also be equipped with a pyrotechnic trigger mechanism containing no more than 200 mg net of Div. 1.4S. The backpack must be packed in such a manner that it cannot be accidentally activated. The airbags within the backpacks must be fitted with pressure relief valves.	YES	YES	YES	NO
Baggage with installed lithium batteries non-removable batteries exceeding–0.3 g lithium metal or 2.7 Wh.	FORBIDDEN			
Baggage with installed lithium batteries: – non-removable batteries. Batteries must contain no more than 0.3 g lithium metal or for lithium ion must not exceed 2.7 Wh; – removable batteries. Batteries must be removed if baggage is to be checked in. Removed batteries must be carried in the cabin.	NO	YES	YES	NO
Batteries, spare/loose, including lithium batteries, non-spillable batteries, nickel-metal hydride batteries and dry batteries (see 2.3.5.8) for portable electronic devices must be carried in carry-on baggage only. Articles which have the primary purpose as a power source, e.g. power banks are considered as spare batteries. These batteries must be individually protected to prevent short circuits. Lithium metal batteries: the lithium metal content must not exceed 2 g (see 2.3.5.8.4). Lithium ion batteries: the Watt-hour rating must not exceed 100 Wh (see 2.3.5.8.4). Each person is limited to a maximum of 20 spare batteries. *The operator may approve the carriage of more than 20 batteries. Non-spillable batteries: must be 12 V or less and 100 Wh or less. Each person is limited to a maximum of 2 spare batteries (see 2.3.5.8.5).	NO*	NO	YES	NO
Camping stoves and fuel containers that have contained a flammable liquid fuel, with empty fuel tank and/or fuel container (see 2.3.2.5 for details).	YES	YES	NO	NO
Chemical Agent Monitoring Equipment, when carried by staff members of the Organization for the Prohibition of Chemical Weapons on official travel (see 2.3.4.4).	YES	YES	YES	NO
Disabling devices such as mace, pepper spray, etc. containing an irritant or incapacitating substance are forbidden on the person, in checked and carry-on baggage.	FORBIDDEN			
Dry ice (carbon dioxide, solid), in quantities not exceeding 2.5 kg per person when used to pack perishables not subject to these Regulations in checked or carry-on baggage, provided the baggage (package) permits the release of carbon dioxide gas. Checked baggage must be marked "dry ice" or "carbon dioxide, solid" and with the net weight of dry ice or an indication that there is 2.5 kg or less dry ice.	YES	YES	YES	NO
e-cigarettes (including e-cigars, e-pipes, other personal vaporizers) containing batteries must be individually protected to prevent accidental activation (see 2.3.5.8.2).	NO	NO	YES	NO
Electro shock weapons (e.g. Tasers) containing dangerous goods such as explosives, compressed gases, lithium batteries, etc. are forbidden in carry-on baggage or checked baggage or on the person.	FORBIDDEN			
Fuel cells containing fuel, powering portable electronic devices (e.g. cameras, cellular phones, laptop computers and camcorders), see 2.3.5.9 for details.	NO	NO	YES	NO
Fuel cell cartridges, spare for portable electronic devices, see 2.3.5.9 for details.	NO	YES	YES	NO
Gas cartridges, small, non-flammable containing carbon dioxide or other suitable gas in Division 2.2. Up to two (2) small cartridges fitted into a **self-inflating personal safety device**, intended to be worn by a person, such as a life jacket or vest. Not more than two (2) devices per passenger and up to two (2) spare small cartridges per device, not more than four (4) cartridges up to 50 mL water capacity for other devices (see 2.3.4.2).	YES	YES	YES	NO
Gas cylinders, non-flammable, non-toxic worn for the **operation of mechanical limbs**. Also, spare cylinders of a similar size if required to ensure an adequate supply for the duration of the journey.	NO	YES	YES	NO
Hair styling equipment containing a hydrocarbon gas cartridge, up to one (1) per passenger or crew-member, provided that the safety cover is securely fitted over the heating element. This hair styling equipment must not be used on board the aircraft. Spare gas cartridges for such hair styling equipment are not permitted in checked or carry-on baggage.	NO	YES	YES	NO

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

Dangerous Goods carried by Passengers and Crew (Continued)

TABLE 2.3.A
Provisions for Dangerous Goods Carried by Passengers or Crew
(Subsection 2.3) *(continued)*

	The pilot-in-command must be informed of the location	Permitted in or as carry-on baggage	Permitted in or as checked baggage	The approval of the operator is required
Insulated packagings containing refrigerated liquid nitrogen (dry shipper), fully absorbed in a porous material containing only non-dangerous goods.	NO	YES	YES	NO
Internal combustion or fuel cell engines, must meet A70 (see 2.3.5.12 for details).	NO	YES	NO	NO
Lithium Batteries: Portable electronic devices (PED) containing lithium metal or lithium ion cells or batteries, including medical devices such as portable oxygen concentrators (POC) and consumer electronics such as cameras, mobile phones, laptops and tablets (see 2.3.5.8). For lithium metal batteries the lithium metal content must not exceed 2 g and for lithium ion batteries the Watt-hour rating must not exceed 100 Wh. Devices in checked baggage must be completely switched off and must be protected from damage. Each person is limited to a maximum of 15 PED. *The operator may approve the carriage of more than 15 PED.	NO*	YES	YES	NO
Lithium batteries, spare/loose, including power banks, see **Batteries, spare/loose**				
Lithium battery-powered electronic devices. Lithium ion batteries for portable (including medical) electronic devices, a Wh rating exceeding 100 Wh but not exceeding 160 Wh. For portable medical electronic devices only, lithium metal batteries with a lithium metal content exceeding 2 g but not exceeding 8 g. Devices in checked baggage must be completely switched off and must be protected from damage.	YES	YES	YES	NO
Lithium batteries, spare/loose with a Watt-hour rating exceeding 100 Wh but not exceeding 160 Wh for consumer electronic devices and PMED or with a lithium metal content exceeding 2 g but not exceeding 8 g for PMED only. Maximum of two spare batteries in carry-on baggage only. These batteries must be individually protected to prevent short circuits.	YES	NO	YES	NO
Matches, safety (one small packet) or a small cigarette lighter that does not contain unabsorbed liquid fuel, other than liquefied gas, intended for use by an individual when carried on the person. Lighter fuel and lighter refills are not permitted on one's person or in checked or carry-on baggage.	NO	ON ONE'S PERSON		NO
Note: "Strike anywhere" matches, "Blue flame" or "Cigar" lighters or lighters powered by a lithium battery without a safety cap or means of protection against unintentional activation are forbidden (see 2.3.5.8.4(e)).				
Mobility Aids: Battery-powered wheelchairs or other similar mobility devices with **non-spillable wet batteries, nickel-metal hydride batteries or dry batteries**, (see 2.3.2.2).	YES	YES	NO	YES
Mobility Aids: Battery-powered wheelchairs or other similar mobility devices with **spillable batteries or with lithium ion batteries** (see 2.3.2.3 and 2.3.2.4 for details).	YES	YES	NO	YES
△ **Mobility Aids:** Battery-powered wheelchairs or other similar mobility devices with **lithium ion batteries** where the design of the mobility aid does not provide adequate protection for the battery(ies) (see 2.3.2.4.3 for details).	YES	NO	YES	YES
Non-radioactive medicinal or toiletry articles (including aerosols) such as hair sprays, perfumes, colognes and medicines containing alcohol; and **Non-flammable, non-toxic (Division 2.2) aerosols**, with no subsidiary hazard, for sporting or home use (see 2.3.5.1). The total net quantity of non-radioactive medicinal or toiletry articles and non-flammable, non-toxic (Division 2.2) aerosols must not exceed 2 kg or 2 L and the net quantity of each single article must not exceed 0.5 kg or 0.5 L. Release valves on aerosols must be protected by a cap or other suitable means to prevent inadvertent release of the contents.	NO	YES	YES	NO
Oxygen or air, gaseous, cylinders required for **medical use**. The cylinder must not exceed 5 kg gross weight.	YES	YES	YES	YES
Note: Liquid oxygen systems are forbidden for transport.				
Permeation devices, must meet A41 (see 2.3.5.13 for details).	NO	YES	NO	NO
Radioisotopic cardiac pacemakers or other devices, including those powered by lithium batteries, implanted into a person or fitted externally.	NO	ON ONE'S PERSON		NO
Security-type equipment (see 2.3.2.6 for details).	YES	YES	NO	NO
Security-type attaché cases, cash boxes, cash bags, etc. incorporating dangerous goods, such as lithium batteries and/or pyrotechnic material, except as provided in 2.3.2.6 are totally forbidden. See entry in 4.2–List of Dangerous Goods.	FORBIDDEN			
Specimens, non-infectious packed with small quantities of flammable liquid, must meet A180 (see 2.3.5.11 for details).	NO	YES	YES	NO
Thermometer, medical or clinical, which contains mercury, one (1) per person for personal use, when in its protective case.	NO	YES	NO	NO
Thermometer or barometer, mercury filled carried by a representative of a government weather bureau or similar official agency (see 2.3.3.1 for details).	YES	NO	YES	YES

Note:
The provisions of Subsection 2.3 and Table 2.3.A may be limited by State or operator variations. Passengers should check with their airline for the current provisions.

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.12 Dangerous Goods Appendix I

1. **Dangerous Good ULD Tag (blank)**



DHL

CONTAINER / PALLET

No.

DESTINATION

NET WEIGHT (Kg)

TARE WEIGHT (Kg)

TOTAL

LOADED FLIGHT POSITION ON A/C

TRANSFER AT FLIGHT POSITION ON A/C

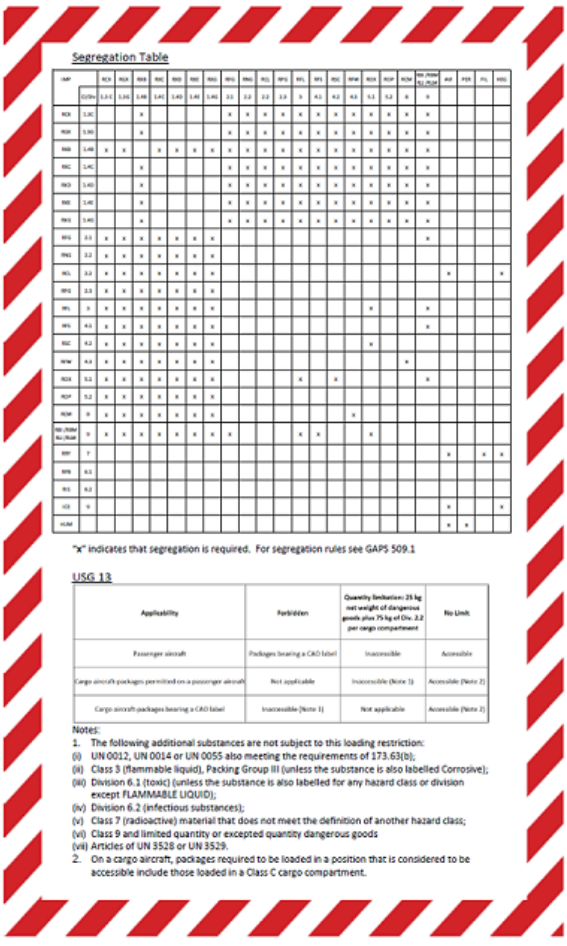
CONTENTS

REMARKS

LOADED BY:

The signature below certifies there is no evidence of any damage or leaking package containing dangerous goods loaded on/in this ULD. All packages are secured from being damaged, including by the movement of baggage, mail, stores or other cargo. All incompatibilities have been loaded in compliance with IATA DGR 9.3.2 and 49 CFR 175.78(a).

NAME: _____ SIGNATURE: _____



Segregation Table

"x" indicates that segregation is required. For segregation rules see GAP5 509.1

USG 13

Applicability	Forbidden	Quantity limitation: 25 kg net weight of dangerous goods plus 75 kg of Div. 2.2 per cargo compartment	No Limit
Passenger aircraft	Packages bearing a CAO label	Inaccessible	Accessible
Cargo aircraft packages permitted on a passenger aircraft	Not applicable	Inaccessible (Note 1)	Accessible (Note 2)
Cargo aircraft packages bearing a CAO label	Inaccessible (Note 1)	Not applicable	Accessible (Note 2)

Notes:
1. The following additional substances are not subject to this loading restriction:
(i) UN 0012, UN 0014 or UN 0055 also meeting the requirements of 173.63(b);
(ii) Class 3 (flammable liquid), Packing Group III (unless the substance is also labelled Corrosive);
(iii) Division 6.1 (toxic) (unless the substance is also labelled for any hazard class or division except FLAMMABLE LIQUID);
(iv) Division 6.2 (infectious substances);
(v) Class 7 (radioactive) material that does not meet the definition of another hazard class;
(vi) Class 9 and limited quantity or excepted quantity dangerous goods
(vii) Articles of UN 3528 or UN 3529.
2. On a cargo aircraft, packages required to be loaded in a position that is considered to be accessible include those loaded in a Class C cargo compartment.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

Dangerous Good ULD Tag (Affixing Methods)

Using HUID:



Manual completion:



UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

2. Special Tag for Radioactive Material



UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

3. Dangerous Goods ULD Tag Job Aid

DANGEROUS GOODS ULD TAG

JOB AID

HOW TO USE

With HUID



1 ULD (container or pallet) number
2 Destination of the ULD
3 Airport of departure
4 Flight number and date of departure (UTC)
5 Dangerous Goods flagging codes inform about content, handling and loading requirements.
The Global Standard Flagging Procedure applies.
6 Primary and subsidiary hazard class and division numbers of DG e.g. 3, 4.3 (AGOM, 7. Dangerous Goods and Exception Handling, 7.7.1 Loading Onboard Aircraft, 2. Dangerous Goods in ULDs)
7 Name and signature of the person responsible for the secure loading of the ULD

Manual Completion



The red hatching border must be visible at all times.
The Dangerous Goods ULD Tag must be signed by a trained and certified staff member to confirm that all pieces have been loaded according to ICAO/IATA provisions. The name and signature at the bottom of the DG ULD Tag must be clearly visible at all times.

DG FLAGGING CODES

For Dangerous Goods pieces with a hazard label attached, the Flagging must start with an asterisk *. These pieces require an entry in the NOTOC and the DG ULD Tag must be used. Note: (MAG) and RRE pieces do not require a DG ULD Tag.
The hazard and handling labels shown below are linked to the flagging codes as per Global Standard Flagging Procedure (GSFP).

	Code		Label	Description
	*CAO			Cargo Aircraft Only
	*DGR		1	Other fully regulated Dangerous Goods not listed (see hazard labels at the bottom) **Note:** Can be removed in combination with *CAO, *RRW, *RRY or *RXP (e.g. *CAODGRICE can be shortened to *CAOICE)
	*ICE			Dry Ice or Carbon Dioxide, solid
	(MAG)			Magnetized Material. *MAG is to be used when State Approval is required
	*MAG			**Note:** (MAG) is always mandatory. Do not remove it in combination with other DG codes mentioned in this table.
	*RCL			Cryogenic Liquid
	*RXP			Explosives
Lithium Batteries	*RLI	UN3481		Lithium Ion or Metal Batteries/Cells - UN3481 / UN3091 Section I
Lithium Batteries	*RLM	UN3091		**Options to shorten:** RBI+RLI = RBI, RBM+RLM = RBM
Lithium Batteries	*RBI	UN3480		Lithium Ion or Metal Batteries/Cells - UN3480 / UN3090 Section IA or IB
Lithium Batteries	*RBM	UN3090		
Radioactive Materials	*RRY			Radioactive Materials, Category II-Yellow and III-Yellow
Radioactive Materials	*RRW			Radioactive Materials, Category I-White **Note:** Can be removed in combination with *RRY
Radioactive Materials	RRE			Excepted Package of Radioactive Material **Note:** Can be removed in combination with *RRW or *RRY (e.g. *RRYRRECAO can be shortened to *RRYCAO)
			1	

For other special load flagging (AVI, PER, etc.) check the **Global Standard Flagging Procedure (GSFP).**

Global Restricted Commodities Group v2.1 – May 2023

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.13 Loads Requiring Special Handling

7.13.1 Valuable Goods (VAL)

7.13.1.1 Acceptance of Export Valuable Shipments

1. **General**

When valuable shipments arrive at Export Door (or other designated point) the following action is taken

1. Advise Designated Supervisor/Lead Agent and appropriate Security of VAL arrival on Export Door
2. Vehicle enters outer chamber of strong room (if applicable)
3. Packages are transferred to strong room or to the warehouse Secure Area
4. Documents are checked against packages
5. Packages checked, i.e. seals, general condition of packages etc
6. Packages are check weighed and stored in VAL location or warehouse secure area
7. Enter consignment information into Export VAL Book kept in the strong room or DG cage

Note:

If discrepancy in weight agrees with shipper's agent to amend MAWB and package to show correct weight and proceed or return goods.

8. Delivery Note is signed by Secure Area Controller / Security as appropriate if freight is accepted
9. Vehicle is released from strong room outer chamber (if applicable)

2. **Preparation for Flight**

Carry out the following:

- Liaise with Cargo Operations (ascertain number of shipments booked etc)
- Check that all booked cargo is on hand
- Request Cargo Operations agent or airline representative to attend strong room for VAL handling
- Place ULD in outer chamber of strong room (if applicable)

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.13.1.2 Handling and Strongroom Procedures

1. **Acceptance**

The Operations Supervisor will provide the inbound VAL notification, listing details of inbound shipments and VAL container number (if applicable). These details are checked against the incoming VAL container or shipments if loose.

Place the VAL container in the outer chamber of strong room as soon as possible after arrival at cargo (if applicable).

Check the contents of the container or loose shipments into strong room and cross- check against the VAL notification.

If there are any discrepancies inform the Operations Supervisor immediately, who will inform Duty Manager and appropriate security for further checking, e.g. weight on documents, notifications and contact with consignee.

2. **Loading and Dispatch**

When all pieces are checked, place in the designated container along with any dangerous VAL which has been transferred from the DGR VAL cage.

When the container is secured (closed) seal and record the seal number on the Valuable Cargo Receipt. This form is signed by both the Warehouse Import Supervisor and the Operations Agent of the flight.

Sign out loaded consignment from Export VAL Book.

Remove the container from strong room under supervision, weigh/label and place on board the aircraft or truck

Complete VAL Handling Form and pass to the Systems Supervisor for filing.

Complete check-sheet and pass to Duty Manager at end of shift.

3. **Delivery**

The warehouse Import Supervisor/Lead Agent /Cargo Handling Assistant / Appropriate security/Handled Carrier Representative enter strong room.

Record details onto VAL handling Form, MAWB Number, number of packages, weight, pouch number, number of pouches used, seal number etc.

VAL pouch is sealed and tagged by Import Supervisor/Lead in presence of the Operations Agent or airline representative.

Note:

Local Procedures might have designated authorities (nominated individuals may vary from those shown above.).

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

4. **Receipt and Release**

Complete the Strong Room import receipt and release form and mark the record number onto the corresponding packages.

The original is held in the strong room

Pass the copy to the Import Agent in charge of the flight. This is checked against the Cargo Manifest and the Flight Check Sheet. The package input is made by the Warehouse Import Lead/Supervisor as soon as possible to enable collection ready status to be set.

5. **Collection**

When the driver arrives to collect the shipment the following checks and records shall be made.

- Check Release Note for driver identification details
- Check Release Note against packages, MAWB number, pieces, weight etc
- Complete Strong Room Content Record Sheet (and file). Remove goods from strong room
- Check drivers I/D (shall be photographic I/D)
- Driver shall give clear signature and print name on Release Note
- Check vehicle registration against that shown on release note
- The Warehouse Import Supervisor to initial back of Release Note to confirm I/D checked

If you are not satisfied with I/D contact Import Supervisor.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.13.2 Live Animals (AVI)

The transportation of live animals is a restricted service and always requires pre-approval by the Regional/Global Restricted Commodities Group. Live Animals offered for transport are subject to legal requirements according to transport, health and customs regulations. The Global Live Animals Policy & Procedures (which, amongst others, provides detailed information on training requirements, minimum staff and infrastructure, operational processes and reporting requirements) shall be adhered to.

Live Animals (AVI) shall be segregated from Toxic Substances or Gases (RPB/RPG), Radioactive Materials (RRY), Cryogenic Liquids (RCL), Infectious Substances (RIS), cremated and uncremated Human Remains (HUM), Foodstuff (EAT), Hatching Eggs (HEG) and other Live Animals (AVI) shipments. Live animals should not be loaded in close proximity of Cryogenic Liquids (RCL) or Dry Ice (ICE) and shipments packed in dry ice. As the vapours emitted by dry ice and cryogenic liquids are heavier than air, they concentrate on the lower level of the hold. Therefore, live animals shall be stowed above the upper level of packages containing dry ice.

For insects, the use of dry ice within the package may be permitted (e.g. as coolant for bees). In that case all requirements which result from the dangerous goods aspect of the dry ice/ cryogenic liquids shall be met.

Generally it is not permitted to load live animals in closed ULDs. Exceptions can only be made for animals which are packed in manner that there are no ventilation holes required (this might apply to insects, chrysalis or fish, for example). Nevertheless the segregation as described above shall be respected.

7.13.3 Perishable Cargo (PER)

Perishable cargo is cargo of which the condition or suitability for initial purpose may deteriorate if either exposed to undue changes in temperature or humidity, or to a delay in carriage. Protection against climatic influences may thus be required during transport. The shipper shall provide written instructions as to the maximum acceptable duration of transportation and of any special handling requirements. These instructions shall be shown on the air waybill and the packages. If special temperatures in the cargo compartments are required, the NOTOC form shall be used to notify the crew to provide adequate ventilation temperature during flight. The special commodity code shall be added to the loading message (LDM). This requirement applies to all the below sub-sections.

To avoid damage or contamination to other load, to holds or to the ULD, do not accept perishable cargo if it is not properly packed.

If perishable cargo is cooled with dry ice, follow regulations that are applicable to dry ice, which is considered a dangerous good.

If there is a delay, immediately take action to prevent perishing of the load - for example:

- Air-condition the aircraft
- Have the perishable cargo taken back to a warehouse with suitable facilities, for example air conditioning or cold store
- Transfer the load to another flight

When refrigerating containers are used, monitor the temperature and refill the dry ice supply, as required.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

Note:

Special note on Flowers & Plants: Flowers and plants shall be stored in a manner that they avoid direct contact with both the compartment floor and walls. Flowers shall not be stowed in the same hold or ULD as fresh fruit and vegetables, since the ethylene gas that vegetables produce may cause flowers to deteriorate.

- Extreme care shall be taken when loading / unloading this type of cargo due to its fragile nature
- Cartons shall not be unnecessarily jolted and shall always be stowed in accordance to the instructions
- Avoid crushing and stowing beneath other load
- Keep off floor and sidewalls if possible

7.13.4 Pharmaceutical Products (PIL)

Pharmaceutical products are defined as substances intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease (e.g. drugs, biological products and medical devices. Pharmaceutical products have strict storage requirements such as temperature and relative humidity in order to preserve their quality and safety.

PIL is required to be mentioned in the LDM messages only when the pharmaceutical products require a specific temperature during transport.

7.13.5 Foodstuffs (EAT)

Foodstuffs should be separated from general cargo and be stacked into ULDs or bulk holds in such a manner as to avoid crushing, and to avoid the lower layers of the stack being damaged by the weight of the upper layers. Foodstuffs shall not be loaded in close proximity of uncremated human remains, poisonous or infectious substances and live animals because of the risk of contamination.

Special Note on Vegetables and Fruit: The high moisture contents of certain fruits and vegetables may lead to self-heating if packages are packed tightly and in unventilated containers. As self-heating can spoil fruit and vegetables, ensure that containers are well ventilated before loading.

- Do not leave standing in hot sunlight before loading
- Segregate from Live Animals

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.13.6 Wet Cargo (WET)

Wet Cargo are shipments containing liquids, or shipments which by their nature may produce liquids, and which are not subject to the IATA Dangerous Goods Regulations (DGR). These types of shipments may include, but are not limited to:

- Perishable shipments which are not packed in fully watertight containers
- Fish/Seafood (PES), including PES packed in Styrofoam boxes
- Flowers, fruits and vegetables with high moisture content
- Fresh or frozen meat, unless packed in vacuum plastic and not kept cool by wet ice

Wet Cargo shall always be carried on Unit Load Devices, e.g. pallets or containers.

During build-up of ULD, the following guidelines shall be adhered to:

- Cover the floor of the ULD with plastic foil/sheets, allowing at least for an extra meter on all sides of the load so that it can be folded over the first layer of cargo
- Place a layer of absorption sheets on top of the plastic foil/sheets within the base line of the ULD
- Load the Wet Cargo on top of the absorbent material, observing all special handling labels and making sure that it is secured against any movement in flight.
- Raise the sides of the plastic foil/sheets up and fold over the first layer of cargo. Secure the plastic foil/sheets into place with packing tape or by loading a second layer of cargo on top.
- Special attention shall be given to avoid crushing of the packages when stacking, as the strength of some packaging can diminish when it is wet or damp.
- If Dry Ice is used for cooling of Wet cargo, it shall be loaded on top of the cargo being transported

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.13.7 Hatching Eggs (HEG)

It is essential to keep transportation time to a minimum in order to maintain the eggs in good condition for delivery. No other loads should be stacked on top of packages containing eggs. Hatching eggs should not be loaded in close proximity of Radioactive Materials (RRY), Toxic Substances or Gases (RPB/RPG), Infectious Substances (RIS), Cryogenic Liquids (RCL), Dry Ice (ICE) and/or Live Animals (AVI). The code (HEG) for hatching eggs shall be added to the CPM message. Hatching eggs require a temperature range of 10°C to 15°C during flight, and temperatures should never exceed 27°C.

7.13.8 Human Remains (HUM)

The transportation of human remains, no matter if cremated or uncremated, is only allowed under very controlled circumstances and only after a thorough business case is presented and approved.

Following loading restrictions apply:

- Loading of coffins into the bulk compartment is prohibited.
- Coffins shall not be loaded into the same compartments or ULDs as Live Animals, Food for Human Consumption or Live Human Organs.
- Do not stow coffins under other load; stow them horizontally and with head towards direction of flight.
- Urns may be loaded with other cargo or bulk compartment without further restrictions.
- Load in dedicated transfer containers, if possible.

7.13.9 Undeveloped Film (FIL)

As this type of Cargo can deteriorate when subjected to a wide variation in temperature, it should not be loaded directly on the compartment or ULD floor or in contact with the compartment walls.

This Cargo shall be segregated from Radioactive Material (RRY) in accordance to the regulation. Where lengthy delays occur in hot and humid ground conditions, this cargo should be stored in air-conditioned facilities.

7.13.10 Diplomatic Mail and Cargo (DIP)

A shipping container or diplomatic bag being shipped to or from an embassy of a sovereign state, it has diplomatic immunity from search or seizure.

No special stowage is required but it may need to be unloaded immediately upon arrival.

7.13.11 Live Human Organs (LHO)

Live Human Organs is priority cargo and refrigerated using Dry Ice (ICE).

This Cargo shall be segregated from non-cremated Human Remains (HUM).

7.13.12 News Film and Press Material

No special stowage required, however due to the usual urgency of this type of cargo, packages should be loaded in an accessible position on the aircraft to make it easier to locate the package on arrival.

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.13.13 Odoriferous Cargo

Certain types of cargo in this category, such as Durian Fruit, are known to exude high degrees of vapour when subjected to high humidity conditions. To prevent the vapour from entering the sensitive fire warning system inlets when such cargo is carried, all of the ULD shall be covered with plastic sheet from the outside and masking taped down.

This type of cargo is not recommended for transport on DHL aircraft. If carried, this shall be mentioned on the NOTOC.

7.13.14 Fragile Cargo and Liquids

Loading instructions on the outside of this package shall be strictly followed. Arrows indicating a certain stowing direction shall be observed at all times, including during the loading, unloading and handling process.

As fragile labels indicate that the content of a package may be broken if not handled with care, positive action by loading staff is required to ensure that this category of cargo is protected against damage at all times.

When loading fragile pieces, ensure that they cannot be damaged by other loads. If placing on top of other load, ensure that the piece is restrained so that it will not fall during take-off and landing.

Packages of liquids that show visible signs of leakage shall be treated in the same way as damaged goods. The consignment must be offloaded or sent to the repack area for repacking.

7.13.15 Outsized / Large Cargo

Outsized loads are loads, normally single pieces, which do not fit a standard ULD or exceeds the maximum position weight for the aircraft assigned to the route(s).

Before accepting Outsize or Large loads, a check shall be made with Global Airside, your regional airside or the local NCG/SOC to ensure it is loadable on the proposed route(s).

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.13.16 Service Freight (COMAT)

1. **Definition of Company Material**

Company Material is non-revenue cargo shipped in compliance with the Operating Manual of the airline carrying the freight. Intra-company service freight is referred to as “COMAT” and means in particular internal dispatches of correspondence and materials, such as but not limited to, documentation, supplies, maintenance spares and other articles, intended for delivery to its own or contracted organization for use within air carrier operations.

Note: In case the Company Material is classified as dangerous goods all related processes and procedures shall be adhered to.

2. **Security**

COMAT carried on a DHL aircraft are whether transported out of critical parts of security restricted areas or be subjected to security controls before being placed on board of the aircraft. COMAT shall be subjected to security screening in compliance with applicable regulations as stipulated by the airline and local authorities.

Company Material which originates in critical parts of the security restricted area may be exempted from security controls. Company Material from other than critical parts of the security restricted area shall be subject to the following measures:

- Before being loaded into the hold of an aircraft, COMAT shall be screened and protected in accordance to the security processes of hold baggage or be subject to security controls and protected in accordance to the security processes of cargo. It shall be controlled to ensure that no prohibited articles have been introduced into the shipment.
- Before being loaded into any part of an aircraft other than the hold, COMAT shall be screened and protected in accordance to the security processes of cabin baggage. COMAT shall be clearly marked as “Security Checked” once applicable security checks have been performed.
- COMAT shall not be left unattended prior to being located on board the aircraft.
- If necessary the shipment can be opened for additional checks by the flight crew.

The shipment is accompanied by a COMAT label and a manifest stating the origin, destination and contents of the shipment.

3. **Booking / Communication**

COMAT shall be booked via the airline transporting the cargo or its dedicated handling agent. Communications shall ensure the weight and onboard location of the freight is passed on to the entity responsible for producing Weight & Balance documents for the flight, and to ensure the department responsible for the loading of the flight is advised about location of the COMAT and/ or where to load.

Down-route stations shall be alerted to the presence of COMAT by including the relevant information in the SI box of the Load Message (LDM).

4. **Marking / Labeling**

All COMAT shipments shall be labeled “COMAT” when applicable and shall be accompanied by a COMAT manifest.

5. **Individual Airline Procedures**

- EAT: See DHLAGOM **2.2 - European Air Transport**

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.14 IATA Documentation

All stations that are open for Live Animals, Perishable Cargo or Temperature controlled shipments shall have access to the applicable regulatory document(s); and IATA Live Animal Regulations (LAR), Perishable Cargo Regulations (PCR), or Temperature Control Regulations (TCR).

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.15 Blocking Shipments

1. **Purpose**

To detail the procedure whereby it is necessary to stop pieces from being processed normally when special handling requires this action.

2. **Applicability**

This procedure only applies to Facilities which use the DHL applications as well as all Pieces which require blocking in the system.

3. **Requirements**

All Pieces that for any reason should not be forwarded immediately shall be blocked on system.

7.15.1 Procedure

Block Pieces in the AHS system as per the following procedure

- Ensure all relevant information concerning blocked Pieces is obtained
    - All Pieces that for any reason should not be forwarded immediately shall be blocked on system
- Select Pieces to be blocked
- The main reasons for blocking Pieces include:
    - Request by Customs
    - Request by Customer Services
    - Request by Customer
    - Exception handling requirement
    - High value restrictions
    - Security restrictions
    - Import restrictions
    - Other binding restrictions
- Block Pieces prior to processing
    - This will only block the Pieces in AHS Reload Areas
    - The block message will also be shown in CARA but the Pieces are not blocked from check pointing
- Assign correct blocking reasons where required.

Ensure Piece is released for normal processing once special handling has taken place.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.16 Managing Unidentifiable Pieces

1. **Purpose**

The purpose of this procedure is to manage unidentifiable pieces by searching for customer information and recording physical details to ensure the impact on the service commitment can be minimised.

2. **Applicability**

This procedure is applicable to all pieces without any physical means of identification.

3. **Requirements**

Every time a piece is opened by DHL employee or agent a "Security Inspection" event shall be captured and the Security Label has to be attached.

All unidentifiable pieces shall be recorded in the found shipment database within the current operational cycle in which they were found. All pieces which have been successfully identified shall be processed in the next operational cycle.

7.16.1 Procedure

In the event of an unidentified piece being located during the handling process the following actions are to be taken:

- Recover the appropriate piece
- Inspect the piece for any customer information
- Record the status of the unidentifiable piece
- Apply the required changes to the piece and/or support paperwork
- Close and seal the piece and record the inspection event plus attach the security inspection label
- Pass the piece for further processing

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:46)

UNCONTROLLED DOCUMENT

7.17 Managing Pieces Without Data

1. **Purpose**

The purpose of this procedure is to detail a process for managing Pieces without complete mandatory data by holding the Piece or by completing the missing data in order to meet the product service level related to the Piece.

2. **Applicability**

Pieces with missing data shall not be processed before the minimum preliminary data has been completed.

Import Gateways requiring "check-in" Manifests shall ensure that all manual entries have been processed and assigned to the correct Manifest before the submission of the Manifest to Customs.

If part of the declarable "pre-alert" is missing, ITSS shall be notified and additional data shall be requested.

Manual entries shall be completed in time for the Piece to make the earliest delivery cycle/movement.

Manual entry shall take place after the paperwork check-in is complete.

7.17.1 Procedure

1. **Obtaining Pieces**

Obtain the Piece with missing data from the buffer.

- If ‘T Status’ Shipment Alert is missing, notify ITSS and request new or additional pre-alert data
- If BRU-HUB can make data available then end procedure
- If BRU-HUB cannot provide data continue procedure

2. **Validating Service Offering**

- Identify the Product/Product Feature of the Piece
- Validate the service offered to understand if the Piece has to be delivered immediately or if it can be held awaiting the arrival of the missing data
- Go to Question "HOLD PIECE?"

  - If ***yes*** go to ***Record Missing Data Status***

  - If **no** go to ***Enter Missing Data***

3. **Recording the Status of Missing Data**

In order to record the exception, identify the Piece ID.

- If the Piece is to be put on hold, capture the appropriate "On Hold" event to record that the Piece is held due to missing data.

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:47)

UNCONTROLLED DOCUMENT

4. **Entering Missing Data**

Identify the missing data elements required to allow further processing and ensure that all of the relevant product and product features are identified.

- Enter the Shipment data according to the internal minimum requirements
- For 'T Status' Shipments: Re-run skeleton record report to ensure that updated records are now complete and accepted (if not re-enter the missing information) and make a log of all manual entries
- If the total amount of manual entries exceeds 5% of total inbound, forward a report detailing all HAWB to ITSS for further investigation

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:47)

UNCONTROLLED DOCUMENT

7.18 Managing Damaged Pieces

1. Purpose

To detail the procedure for the correct handling of damaged Piece by recording the damage, repacking and preparing it for storage or further processing to prevent loss of contents, ensuring the impact on the service commitment is minimized and claims can be handled efficiently.

2. Applicability

All damaged Pieces or Pieces with insufficient packaging.

3. Requirements

The related DHL sign shall be affixed in a prominent place to indicate where these tasks are being performed.

The status and cause of damage to the Shipment and its content shall be checked and recorded. The damage discovered shall be reported and "DHL Re packed" tape shall be used to repair the Pieces that were opened in order to perform this check.

Diplomatic material with a damaged packaging and/or seal shall be held and moved to the secure area. All facilities shall have a designated and secured Repack area. If the Piece is damaged the "Damaged" event shall be created within 10 minutes to indicate a repack took place.

All damaged Pieces shall be repacked if either being returned to Shipper or being forwarded to the Receiver. All pieces shall be packed according the Regional standards. The repacking of a piece shall take place before the piece is placed on the process lines.

Note: In case of damaged dangerous goods see **7.10 - Handling of Damaged Dangerous Goods.**

7.18.1 Procedure

The following action, as appropriate is to be taken to protect the integrity of the piece and minimise service disruption.

1. **Assessing and Recording Damage**
    1. Investigate the severity of the damage.
    2. If the Piece contains any Dangerous Goods see **7.10 - Handling of Damaged Dangerous Goods.**
    3. Create and upload the "Damaged" event and transmit within 10 minutes to indicate a repack took place. Note that a damaged Piece does not mean that all of the Pieces of a Shipment are damaged, so only create a report for the damaged Piece.
    4. Go to QUESTION: "REPORT REQUIRED?"
        - If **yes** go to ***Produce Damaged Piece Report***
        - If **no** go to Step 3 above
    5. Determine if the damage can be resolved then create appropriate local or regional incident code. It shall be created and transmitted within 10 minutes of the activity.
    6. Determine if any further processing is required:
        - If **yes** go to ***Repacking Pieces***

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:47)

UNCONTROLLED DOCUMENT

- If **no** go to **Managing Problem Pieces** 7.17.1 - Procedure **-** ***Assess Cause of Problem***

2. **Damaged Piece Reports**

Complete the standard damaged Piece form describing all relevant details, for example, the number of broken bottles. If possible take a picture of the damaged piece and add it to the Report

Inform the appropriate department/responsible about the damaged Piece.

3. **Repacking Pieces**

Obtain the standard repack material according to internal guidelines, for example, DHL repack tape.

Repack the Piece in accordance with security and transportation regulations. If necessary, re-Label the Pieces. For Dangerous Goods see **7.10 - Handling of Damaged Dangerous Goods**.

Create the appropriate local or regional incident code and transmit to the Network within 10 minutes to indicate a repack took place

Determine next logical process for the Piece(s) and pass for further processing.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:47)

UNCONTROLLED DOCUMENT

7.19 Managing Problem Pieces

1. **Purpose**

The purpose of this is to handle all Problem Pieces by investigating, documenting and following up on the problems to ensure Service disruption is minimised.

2. **Applicability**

This procedure is applicable to all Pieces identified as Problem Pieces that need further investigation.

3. **Requirements**

All Problem Pieces shall be given the appropriate event, which shall be made available to the DHL Network according to service indicators.

7.19.1 Procedure

1. **Assessing Cause of Problems**

- Obtain the Piece and identify the reason for the problem; for example, reason for non-Delivery (bad address, refused Delivery, missing customs paperwork); reason why Piece could not be processed.
- Try to find an easy, fast solution to the problem; for example, check yellow pages; check Customer database; Problem Piece history archive. Give priority to those pieces that are likely to be resolved quickly
- All unresolved "found pieces" have to be forwarded to the local "Found Shipment Centre" (FSC) or the regional FSC for Hubs & Gateways.

A record of actions taken shall be attached to pieces when sent to the FSC.

2. **Documentation Problems**

- Complete the standard problem form and link it to the Problem Piece.
- Inform the appropriate department/responsible. For instance start a problem query ensuring that the Piece ID is registered, contact Origin to obtain new contact information, contact Origin (or Customer) to obtain Customs support paperwork.
- If not done yet, capture the appropriate event to indicate the type of problem and upload the information to the DHL Network.
- If necessary escalate the problem according to the standard escalation procedures.

3. **Passing Problem Pieces to On Hold Area**

- Prepare the Pieces for handover; for example, palletise them; put the hard copy of the problem form on the Piece
- Ensure that any Customs paperwork is put back on the Piece
- Handover the Piece to the Inventory Controller for storage

4. **Receiving Instructions**

- Receive new instructions about the held Piece; for example, a new Delivery address from the Customer Service function
- Validate the next action to be taken in accordance with the received instructions

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:47)

UNCONTROLLED DOCUMENT

5. **Instructing Release from Held Inventory Control**

- Prepare the instructions for the release of the Problem Piece.
- Forward the instruction to the inventory controller. Make sure that the release instructions also include the solution and instructions provided; (example, new Delivery address, return to Shipper)

6. **Preparation of Pieces for Next Process**

- If necessary, correct the wrong information in the Shipment record which caused the service failure
- For a Miscode, a new Shipment Label has to be created
- The Service Directory can provide the correct Destination Code
- If necessary remove or obstruct the invalid Label, for example, routing information, city of destination. If the incorrect code has been written on the Piece, then delete this incorrect code as well

7. **Assigning Material to Sort**

- Identify the next process
- Forward the Pieces as per the identified/local process

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:47)

UNCONTROLLED DOCUMENT

7.20 Managing Mis-sorts / Mis-codes

1. **Purpose**

This procedure is used to handle Mis-sorted and Miscoded Pieces by reporting and preparing it for further processing in order to re-route it to the correct destination.

2. **Applicability**

This is applicable to all Mis-sorted and Miscoded Pieces in a Facility.

3. **Requirements**

The "Mis-sort" event shall be captured and transmitted within 15 minutes after the end of the inbound sort.

The "Miscode" event shall be captured and transmitted within 15 minutes after the end of the inbound sort

If a Miscoded Piece returns into the Network, a new pre-advise record (for same Piece ID) shall be created.

A new DHL Transportation label shall be created containing the correct destination code if the facility has access to an outbound processing application to produce label.

The Miscoded Shipments Policy shall be adhered to.

7.20.1 Procedure

1. **Obtaining and Recording Miss-sorted Material**

Obtain the Piece from the buffer and read the available Delivery address.

Determine whether the Piece is Mis-sorted or Mis-coded and update any missing Shipment/Piece details as required.

Record the Mis-sort or Mis-code status of the Piece as per local requirements.

Customs support paperwork that has been Mis-sorted or Mis-coded shall also be handled. Verify if paperwork contains Controlled Documents. If so, contact the Destination Gateway to determine the action to be taken.

2. **Passing Shipments for Processing**

- Assign the next logical buffer for further processing.
- Forward the Pieces as per the identified/local process.

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:47)

UNCONTROLLED DOCUMENT

7.21 Managing Clearance Problems

1. **Purpose**

To detail the procedure for handling all clearance problems by investigating, documenting and following up to ensure service, is minimized.

2. **Applicability**

All Pieces that need further investigation.

3. **Requirements**

The controllable or uncontrollable "Clearance Delay" event shall be captured for all pieces whose progress has been delayed due to issues with import, export or transit clearance processing.

Assessment of the Clearance status shall be made in sufficient time to allow released Pieces to make to the next scheduled Movement. 'T Status' Pieces, released by Customs that will not be transported within 4 hours shall be passed to the secure/on-hold area.

If the Mis-sorted or Miscoded paperwork includes Controlled Documents, such as Carnet or Export Licenses, the correct Gateway shall be contacted and informed that the paperwork has been received and forwarded under Piece ID or AWB xxx by normal scheduled route. Any other paperwork shall also be forwarded the same day of receipt.

Every Shipment shall have appropriate Clearance Paperwork attached in an unsealed pouch. For Network reporting, missing paperwork reports shall be created before "check in" of recovered paperwork. Check for Customs paperwork availability within imaging applications before removing paperwork from the Piece.

The "Clearance Release" event shall be created for all 'T Status' shipments that have successfully completed the shipment clearance process.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:47)

UNCONTROLLED DOCUMENT

7.21.1 Procedure

The steps detailed in this procedure shall be followed in order that any or all identified problems can be rectified in a timely manner, thus avoiding or reducing any service delivery failure.

1. **Assessment and Documentation**

Proceed as follows:

1. Obtain the Piece and identify the reason for the problem; for example, reason for export clearance problem or import clearance problem (e.g. missing invoices, incorrect invoices, mismatch invoice and piece data, unauthorized export, license missing, Miscoded or Mis-sorted Support Paperwork)
2. Missing Paperwork Problem
   - If **yes** go to ***Recover Missing Paperwork***
   - If **no** continue with Step 3 below
3. Mis-sorted or Mis-Coded Paperwork
   - If **yes** go to ***Mis-sorted / Miscoded Paperwork.***
   - If **no** go to ***Problem Resolution***

Try to find an easy, fast solution to the problem. For instance, send the Miscoded or Miss-sorted paperwork to the correct Gateway.

If no solution possible, complete the standard Problem form and link it to the Problem Piece.

Inform the appropriate department/responsible. For instance start a problem query ensuring that the Piece ID is registered, contact Origin or Customer to obtain missing paperwork.

If not already actioned, create the controllable or uncontrollable "Clearance Delay" event to indicate the type of problem. Upload the information to the DHL Network.

If necessary escalate the problem according to the standard local escalation procedures.

2. **Handling Mis-sorted / Miscoded Paperwork**

- Identify the correct destination of the paperwork
- Pass Miscoded paperwork for Imaging if applicable
- If local authorities require Export Declarations for Miscoded Pieces pass paperwork as appropriate
- Forward the paperwork and controlled documents using standard Piece and routing procedures to the correct Gateway

3. **Recovering Missing Paperwork**

- Check imaging applications if paperwork is available in electronic format. If so, produce print out of paperwork
- If no electronic files available, check Piece for paperwork. If paperwork is available resolve the problem

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:47)

UNCONTROLLED DOCUMENT

4. **Problem Resolution**

   - Based on documented characteristics of the problem determine how to resolve it (e.g. enter missing details, contact Customer)
   - Take action to resolve the problem

5. **Releasing and Recording Pieces**

   - Receive instructions to release Piece from Customs on-hold area
   - Ensure correct Piece is released
   - Capture "Clearance Release" event, transmit the event to the DHL Network and pass the piece on to the next identified process point (e.g. reweigh area, sorting area).

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:47)

UNCONTROLLED DOCUMENT

7.22 Hold Material - Secure Area Procedure

1. **Purpose**

To hold material at location by adding it to the inventory (e.g. the Secure Area) and to ensure shipment safety and progress visibility whilst waiting further processing.

2. **Applicability**

All pieces that are not expected to move within 4 hours and Pieces that need securing, (e.g. high theft risk material, clearance delayed material)

3. **Requirements**

The related DHL Warehouse Sign shall be affixed in a prominent place to indicate where these tasks are being performed. All DHL Facilities shall have a secure area which shall be a locked area with controlled entry access and key holder. The local access and recording procedure shall be inserted as an appendix to this section of the COM.

All (high theft risk) material that is not expected to move within 4 hours shall be assigned immediately to the secure area. All material that enters leaves and stays in the secure area shall be under strict inventory control.

Dangerous goods shall be held in accordance with the governing regulations.

All material stored in the Secure Area/On-hold Area shall have received the appropriate "Lodged into Held Inventory Control" event.

Material released from the Secure Area/On-hold Area shall receive the appropriate "Lodged out of Held Inventory Control" event.

The Regional Security Manual shall be adhered to.

For all pieces destroyed or disposed of, the "Destroyed / Disposal" event shall be captured. Pieces held in a Secure Area or On Hold Area shall receive a daily scan.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:47)

UNCONTROLLED DOCUMENT

7.22.1 Procedure

1. **Recording into Inventory**

When the piece has been located confirm the piece has to be put on hold or secured.

Create the "Lodged into Held Inventory Control" event and upload the information into the DHL Network, to indicate that the Piece is now into a storage area.

2. **Storing Material**

Store the Problem Piece in the appropriate area for the Piece.

If appropriate, record the exact storage location of the Piece; for example, record the shelf identifier.

3. **Recording Out of Inventory**

Perform the following steps

1. Receive instructions to release the Piece
2. Locate the Piece according to the inventory records and Facility details
3. Ensure the correct Piece will be released
4. Obtain the Piece from the shelf
5. Create the "Lodged out of Held Inventory Control" event, to indicate that the Piece is released from Inventory/On Hold
6. Go to question "DISPOSAL?"

    - If **yes** go to ***Disposal of Material***

    - If **no** go to Step 4 above

7. Determine if any preparation is required

    - If **yes** go to Managing problem pieces **7.17.1 - Procedure** ***for Next Process***

    - If **no** go to ***Assigning Material to Sort***

4. **Disposing of Material**

- Prepare the legal documents required for the disposal
- Dispose of the pieces or handover to external disposal company in accordance with the local regulations
- Record all Pieces disposed of

5. **Assigning Material to Sort**

- Identify the next process
- Forward the Pieces as per the identified/local process

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:47)

UNCONTROLLED DOCUMENT

7.23 Recovering Material from External Inspection

1. **Recovering Material**

Carry out the following:

- Recover material from Authorities.
- Note material recovery time.
- Monitor duration of inspections.
- Report the recovery time to Load Lead.

This information shall be used for checkpoint capture if onward connection is missed or a delay is incurred.

All freight for inspection shall be made available as soon as possible and left untouched.

ULDs returning from inspection shall be considered non positive. Intact positive shipments returned from inspection shall be regarded as positive.

2. **Passing Material for Further Processing**

If material is General Freight at final destination Pass for General Freight Department processing.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:47)

UNCONTROLLED DOCUMENT

7.24 Performing Inventory Control

1. **Purpose**

To perform an inventory control by comparing all Pieces which are physically held in a designated area against the expected piece, to ensure inventory accuracy and piece safety.

2. **Applicability**

This procedure is applicable to all pieces stored in an On-Hold/Secure Area

3. **Requirements**

Discrepancies, as a result of the inventory control, shall be reported to Security Management. On a pre-defined regular basis, every Piece in the on-hold/secure Area shall be recorded (e.g. daily).

An inventory list shall be produced on regular basis to enable comparison between actual and expected Pieces in the On-Hold/Secure Area.

For Pieces held, action shall be taken to ensure that no clearance delays occur and that Pieces do not exceed their locally specified period for held Pieces.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:47)

UNCONTROLLED DOCUMENT

7.24.1 Procedure

The following appropriate action shall be taken in compliance with this instruction:

1. **Inventory Control Instructions**

Obtain and comply with the specific Inventory Control Instructions in accordance with local procedures. Validate the inventory's purpose and requirements.

2. **Recording Pieces**

Obtain the Piece. Capture "Lodged into Held Inventory Control" event, to record the Piece ID in the inventory.

3. **Reconciling Inventory**

With the Inventory Control instructions validated and the held pieces held logged as held in Inventory Control, the following actions to reconcile the inventory should now be taken:

Prepare the inventory list in accordance with the inventory method used.

- Identify Pieces which have been in the Inventory Control for longer than the locally specified period and determine reason and action to resolve the problem as soon as possible
- Detect the inventory discrepancy based on expected Pieces in the inventoried area
- Determine if Inventory list is incorrect (e.g. Piece is already released or delivered). Check if it is possible to track the Piece
- Go to question "CHECK OK?"
    - If **no** go to ***Contacting Security Management***
    - If **yes** go to ***Reporting Inventory Result***

4. **Contacting Security Management**

- Identify the appropriate security responsible
- Record the detected Security Issue by capturing all relevant information in the Security Incident Database (SID)
- Make all the information regarding the Security Issue available to the Security responsible

5. **Reporting Inventory Results**

- Record the inventory report.
- Prepare the standard inventory report.

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:47)

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

7.25 Action Routing Change

1. **Purpose**

This is used to assess the impact of a routing change on a Hub or Gateways warehouse set-up and its consolidation process to ensure
that the loads are routed as required by the network and to ensure relevant staff are informed of changes.

2. **Applicability**

This is applicable to all routing changes received at Hub and Gateway facilities.

3. **Requirements**

All changes shall be managed according to the Bagging and Routing Policy. At the beginning of each operational period the Facility Routings Co-ordinator shall check his/her mail for any new changes.

Each facility shall have at least two people who are responsible for reading and processing routing changes. The latest version of the Bagging Sort Guide and the Cage and Container Sort Guide shall be available to warehouse staff at all times.

All sort process requirements (e.g. sort signs, parameters updates, schedule updates, Handling Unit changes etc) shall be completed before operational period starts.

7.25.1 Procedure

1. **Receiving Routing Changes**

Monitor the routing change mailbox for new changes.

- If a change is received via e-mail (PRIORITY 3)

  - On receipt of a change, read the change immediately.

- If a change is received via telephone (PRIORITY 1 AND 2)

  - Discuss the change in detail until it is clearly understood.

2. **Assessment of New Routing**

Assess the impact of the routing change on the facility's operation.

3. **Load Schemes Updating**

Ensure that the Facility Load Schemes reflect the changes. If printouts are used from the country versions of these documents, print the copies now.

If this is a contingency change, use the contingency Load Schemes where these exist.

- If the change is planned go to ***Local Routing Guide Updating***
- If not planned go to ***Documenting Set-up Changes***

4. **Local Routing Guide Updating**

Ensure that your Facility Bagging Sort Guide, Facility Cage and Container Guide reflect the changes. If printouts from the country versions of these documents are used, print these copies now.

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:47)

UNCONTROLLED DOCUMENT

5. **Documenting Set-up Changes**

Update the Warehouse Set-Up with any changes to the positions or the use of the positions during the operation.

This is only necessary if the warehouse set-up is documented.

6. **Ops Process & Requirements**

- Define sort process (for example, splits and positions)
- Determine profiles required

  - Ensure that sort set up maximises operational efficiency while keeping within restrictions imposed by NPG

  - Ensure all operational parameters are maintained and compliant to instruction received

7. **Briefing Load Leads**

Brief Load Leads using OPS Update.

- Ensure all Load Leads are present
- Conduct briefing in quiet area
- Distribute operational meeting sheets and explain/evaluate operational issues and requirements
- File a copy of operational meeting sheets
- Inform Load Leads of additional info to be passed on to staff
- Take time out for questions and assist Load Leads in possible contingency planning
- Ensure all Load Leads are aware of the current operational security status and any related issues
- OPS update sheets, where used, should be maintained/updated and filed

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT

UNCONTROLLED DOCUMENT (13 DECEMBER 2024 15:33:47)