

## 4 DANGEROUS GOODS TRANSPORT PROCEDURES

*GACAR § 109 Subpart D*

*ICAO Doc.9284 Part 7*

### 4.1 GENERAL RULES FOR COLLECTION AND TRANSPORTATION

#### Acceptance of Dangerous Goods

1. Riyadh Air must not accept dangerous goods for air transport unless accompanied by required documentation, such as the dangerous goods transport document.
2. Required documents must accompany the shipment and a copy retained by Riyadh Air. Documents must be accessible during transport.
3. When information is provided electronically, it must be available at all times and printable as a paper document.

#### Prior to accepting a dangerous goods shipment, Riyadh Air must check the following parameters:

1. Transport documents comply with requirements.
2. Quantity limits are not exceeded.
3. Packages properly are marked and markings are visible.
4. Packing group letter matches contents (not required for overpacks).
5. Proper shipping names, labels, etc. are visible on packages or overpacks.
6. Required hazard labels are applied.
7. Outer packaging type matches documents.
8. No incompatible dangerous goods requiring segregation.
9. No leakage or integrity compromise.
10. Any other acceptance check requirements per Riyadh Air's policies.
11. Minor discrepancies that don't affect safety should not cause rejection.
12. For overpacks/containers, check outer markings rather than inner packages.
13. Exceptions exist for dangerous goods in excepted quantities and radioactive material in excepted packages.



RIYADH AIR  
طيران الرياض

# DANGEROUS GOODS MANUAL

4	DANGEROUS GOODS TRANSPORT PROCEDURES
4.2	DELIVERY, COLLECTION AND TRANSPORTATION PROCEDURES

Issue:	00
Revision:	00
Date:	18-FEB-2024

## 4.2 DELIVERY, COLLECTION AND TRANSPORTATION PROCEDURES

### Collection Procedures:

1. Riyadh Air will verify all required documents are accurate and complete prior to collection of dangerous goods from a shipper's facility.
2. Packages will be inspected visually for proper condition, marking, labelling, and no sign of damage or leakage.
3. Quantity limitations will be confirmed not exceeded by collecting weight/volume data for packages.
4. Collected dangerous goods will be issued a shipment identification number and will be accompanied by a copy of the dangerous goods transport document. Documents must align with collected shipment details.
5. Any discrepancies noted will result in rejection of the shipment until satisfactorily addressed by the shipper.

### Transportation Procedures:

1. While in Riyadh Air custody, dangerous goods shipments must be secured and not left unattended. Only authorized and trained personnel can handle or supervise the shipments.
2. Vehicles transporting dangerous goods must have placards, markings, safety equipment, and emergency response information as required. Parking restrictions apply. Idling must be minimized.
3. Shipments must be verified as allowed for air transport and all acceptance checks passed before loading onto aircraft.
4. Cargo must be inspected for damage/leakage before loading. Damaged or leaking packages will not be loaded.
5. Dangerous goods must be properly loaded, segregated, secured and stowed on aircraft as required.
6. After unloading from aircraft, dangerous goods must be promptly delivered to designated storage areas appropriate for the hazards.
7. While on airport property, a safety zone must be maintained around dangerous goods vehicles. Transfer times should be minimized.



RIYADH AIR  
طيران الرياض

## DANGEROUS GOODS MANUAL

4	DANGEROUS GOODS TRANSPORT PROCEDURES
4.2	DELIVERY, COLLECTION AND TRANSPORTATION PROCEDURES

<b>Issue:</b>	00
<b>Revision:</b>	00
<b>Date:</b>	18-FEB-2024

### Delivery Procedures:

1. Shippers must schedule deliveries of dangerous goods shipments in advance with Riyadh Air and obtain approval prior to delivery. Last minute unscheduled deliveries will not be accepted.
2. Shippers must ensure all required dangerous goods transport documents, shipper's declarations, safety data sheets, and authorizations accompany the shipment. Documents must be carefully reviewed to ensure accuracy and completeness. Electronic data is acceptable if it meets regulatory requirements.
3. Dangerous goods must only be delivered to designated restricted and access-controlled areas at Riyadh Air cargo facilities. Deliveries to passenger terminals or undesignated areas are prohibited.
4. Shipments must be properly packed, marked, labelled, and in suitable outer packaging that is clean, damage-free, and void of any residue. Salvage or damaged packages will be rejected.
5. Shippers must provide necessary safety equipment and resources to safely handle the shipment during delivery per the specific hazards.
6. Upon delivery, Riyadh Air will perform acceptance checks on all required documentation, package marking/labelling, quantity limits, compatibility, package integrity, and other regulatory requirements applicable to the shipment.

## 4.3 STORAGE OF DANGEROUS GOODS

ICAO Doc 9284 Part 7 Chapter 2

### 4.3.1 General Storage Requirements

Riyadh Air shall always prioritize the quick transportation of dangerous goods over storage. Dangerous goods should only be stored when necessary and storage times should be minimized. The priority is always transporting dangerous goods to their destination as quickly as possible. Segregation of Dangerous Goods should be observed in accordance with 2.3.

1. Designated storage areas must have proper construction, ventilation, drainage, and fire protection systems appropriate for the hazards classes stored.
2. Access must be restricted, and storage areas must remain locked when unattended. Clear hazard communication signage is required.
3. Incompatible dangerous goods must be separated by the minimum required distances during storage.
4. Packages must be inspected periodically while in storage and inspected for damage or leaks prior to dispatch.
5. Storage areas must be kept clean and free of any potential ignition sources.
6. Proper storage equipment like cradles, braces, stands, etc. must be used as needed to secure packages and prevent movement/tipping.

Riyadh Air will not store Dangerous Goods in-house. Instead, the company will outsource this task to specialized storage facilities that are in full compliance with Section 9.2 of the IATA Dangerous Goods Regulations (DGR). Riyadh Air shall ensure full compliance through Service Letter Agreements.

### 4.3.2 Storage of Specific Dangerous Goods

1. Exposure of transport and storage personnel to radiation must be controlled and limited to permitted levels for the general public, unless classified as radiation workers.
2. Personnel must receive instructions on radiological hazards and precautions. Exposure should be kept as low as reasonably achievable.
3. Packages should be placed on the floor of underfloor cargo compartments when feasible to maximize distance from passengers.
4. Activity limits per aircraft and requirements for exclusive use shipments must be followed.
5. Consignments must be securely stowed and meet segregation requirements.
6. Loading of containers and packages must be controlled so total transport index limits per aircraft are not exceeded.



# DANGEROUS GOODS MANUAL

## 4 DANGEROUS GOODS TRANSPORT PROCEDURES

### 4.3 Storage of Dangerous Goods

**Issue:** 00

**Revision:** 00

**Date:** 18-FEB-2024

7. Minimum segregation distances apply when transported under exclusive use.
8. Access to radioactive material storage areas is restricted to authorized personnel wearing personnel monitoring devices.
9. Radiological surveys must be performed periodically to check exposure levels and contamination.
10. Proper placarding, labelling, and posting of radiation areas is required. Decay storage may also be needed.
11. Spill containment and emergency response provisions must be in place relevant to the radioactive material hazards.

#### 4.3.3 Storage of Dangerous Goods Spares

1. When feasible, maintenance spares classified as dangerous goods should be stored in small quantities with minimum storage times.
2. Spare aircraft batteries, flammable hydraulic fluids, cleaners, solvents, sealants, etc. present significant dangers and must be stored per the specific requirements. Access restrictions are critical.
3. Any radioactive device spares must only be stored in an isolated radiation area with strict contamination controls and personnel radiation monitoring.



RIYADH AIR  
طيران الرياض

## DANGEROUS GOODS MANUAL

4 DANGEROUS GOODS TRANSPORT PROCEDURES

4.4 LOADING OF DANGEROUS GOODS

Issue: 00

Revision: 00

Date: 18-FEB-2024

### 4.4 LOADING OF DANGEROUS GOODS

1. Dangerous goods are prohibited in passenger cabins or on the flight deck, except for specifically permitted items.
2. Dangerous goods are only permitted in Class C main deck cargo compartments on passenger aircraft. "Cargo Aircraft Only" labelled cargo is prohibited on passenger aircraft.

*Class C and Class D are cargo compartments not accessible to a crew member*

3. With State approval, some dangerous goods may be permitted in main deck compartments.
4. Packages with orientation arrows must be loaded and stowed to align with arrow direction showing proper upright position.
5. Single packages of liquids with end closures must have closures upward when loaded, even if side closures exist.
6. Incompatible dangerous goods must be loaded to maintain segregation minimum distances and separation requirements.
7. Dangerous goods must be properly secured and restrained to prevent any movement in flight that could change orientation or cause damage.
8. Packages showing any sign of damage, leakage or sifting of contents cannot be loaded until inspected and cleared.
9. For radioactive materials, stowage must consider limitations on total transport index and maintaining minimum distances.
10. Loading personnel must verify package marking/labelling matches accompanying documentation. Discrepancies must be addressed prior to loading.
11. Loaded dangerous goods should be inspected to ensure compliance with all loading procedures and requirements.

## 4.5 DANGEROUS GOODS DOCUMENTS

*GACAR § 109 Subpart E*

*IATA DGR Section 8*

The shipper is responsible for providing completed and signed Shipper's Declaration forms containing all required information to Riyadh Air along with dangerous goods shipments. The forms must follow the approved format in English, with optional additional languages as required by the state of origin. There are specifications regarding paper size, print color, and form layout that must be followed.

The specific information that must be included on the declaration forms includes:

1. UN number, proper shipping name, hazard class/division, and packing group for each dangerous goods.
2. Type and number of packages.
3. Total quantity of all dangerous goods.
4. Name and address of shipper and consignee.
5. Any additional certifications or information required by regulations.

Only information relevant to the dangerous goods in the shipment should be included. If both dangerous and non-dangerous goods are listed, the dangerous goods must be emphasized first.

For consolidated shipments containing multiple dangerous goods components, separate declaration forms are required for each component. Copies of all forms must accompany the consolidated shipment.

If the form lacks sufficient space for all required dangerous goods entries, approved extension pages can be attached using the specified format. All pages must show the same aircraft limitations and shipment type.

The shipper must provide two completed and signed copies of the declaration for Riyadh Air. One copy will be retained by Riyadh Air and one will accompany the shipment to its destination. Electronic systems can be used but data must be easily reproducible on paper.

Riyadh Air must retain the declaration forms for the required duration to facilitate audits and incident investigations. Information must match the actual shipment details or discrepancies must be corrected.

## 4.6 HANDLING

*IATA DGR Section 9*

Riyadh Air will not be carrying Dangerous Goods. The following procedures for awareness and future reference.

### 4.6.1 General

1. Handling of dangerous goods may only be performed by Riyadh Air personnel who are trained and authorized.
2. Safety data sheets must be reviewed to understand risks and proper precautions prior to handling any dangerous substance.
3. Required personal protective equipment, such as gloves, safety glasses, masks, etc., must be worn.
4. Packages must be inspected for damage or leaks before handling. Damaged or leaking items cannot be handled until contents are cleaned up and secured.
5. Packages must be grasped firmly and moved in a stable manner when handling manually. Throwing or dropping is prohibited. Equipment should be used appropriately.
6. Orientation arrows must be followed to keep packages upright. Prevent shifting of contents.
7. Take care with fragile, heavy or unbalanced loads. Provide additional support as needed.
8. RXI's safety management system policies and procedures for acceptance, handling, and loading of dangerous goods must be followed.
9. Ground handling agents may perform these functions for Riyadh Air but are also subject to operator responsibilities per regulations.

### 4.6.2 Acceptance

Riyadh Air must ensure cargo acceptance staff are adequately trained to identify undeclared dangerous goods in general cargo shipments. Staff should be provided with information on descriptions shippers often use for items that may contain hazardous materials. Staff should also look for hazard pictograms, labels, markings and other indicators that dangerous goods may be present. When cargo descriptions seem suspicious, staff should request confirmation from the shipper on the contents. This helps prevent undeclared hazards from being unknowingly loaded.

Dangerous goods will only be accepted by Riyadh Air if accompanied by required documentation such as the Shipper's Declaration. Electronic data is acceptable if it meets printability requirements. One copy of the declaration must stay with the shipment and one copy retained by Riyadh Air where it can be accessed until the shipment reaches its destination.



Before initially accepting any dangerous goods for air transport, Riyadh Air must complete an acceptance checklist to verify:

1. The Shipper's Declaration and documents comply with all requirements.
2. The quantity of dangerous goods per package does not exceed limits.
3. Marks on packages/overpacks match the declaration and are clearly visible.
4. The packing group letter matches the contents where required.
5. Proper shipping names, labels, handling codes are visible on packages.
6. Required hazard labels are applied.
7. The package type is permitted and matches the declaration.
8. No incompatible dangerous goods are present.
9. There are no signs of damage, leaks or integrity issues.

Any discrepancies found must be addressed before the shipment can be accepted. The person performing the acceptance check must be identifiable. Some exceptions exist such as for consumer goods, magnetized material, and dry ice.

Special procedures apply for accepting infectious substances and self-reactive/organic peroxide shipments.

## 4.6.3 Loading

Loading of dangerous goods requires stringent compliance with segregation, separation, orientation, securing, aircraft limitation, and other regulatory requirements to ensure safety. This section outlines key procedures Riyadh Air must follow when loading packages containing hazardous materials.

### Prohibited Items and Aircraft Limitations

1. Dangerous goods are prohibited in passenger cabins and on the flight deck except for specifically permitted items.
2. Only certain Class 1 explosives and other hazard classes are permitted on cargo aircraft. Packages labelled "Cargo Aircraft Only" are forbidden on passenger aircraft.
3. With Riyadh Air Ground Operations team approval, some dangerous goods that do not meet packing standards may be allowed in passenger aircraft cargo compartments.

### 4.6.3.1 Separation of Explosives

1. Explosives of different compatibility groups may be loaded together based on DGR compatibility requirements, except Division 1.4B.

2. Division 1.4B must be in separate unit load devices spaced at least 2 meters apart from other explosives.
3. Explosives in Compatibility Group S may be stowed with explosives in all compatibility groups.

### 4.6.3.2 Handling and Orientation of Packages

1. Packages with orientation arrows must be loaded and stowed to align with arrow directions.
2. Liquids with end closures must have closures upward when stowed.
3. Dangerous goods must be secured against movement in flight. Radioactive materials have specific securing requirements.
4. Unit load devices containing dangerous goods must have proper identification tags.

### 4.6.3.3 Inspecting Packages and Devices

1. All packages and devices must be inspected just prior to loading and show no signs of damage or leakage.
2. Any damaged or leaking packages must be removed and handled appropriately.
3. Other cargo impacted must also be inspected and decontaminated.

Refer to [section 4.6.4](#) for detailed inspection instructions.

### 4.6.3.4 Loading Magnetized Material

1. Magnetized material must be loaded to minimize effects on aircraft compasses and in compliance with specific approvals.

*Note: Multiple packages may produce a cumulative effect. They must be loaded so that headings of aircraft compasses are maintained within the tolerances prescribed by the applicable aircraft airworthiness requirements and where practical, in locations minimizing possible effects on compasses.*

### 4.6.3.5 Loading Dry Ice

1. Dry ice shipped alone or as a coolant must be handled based on aircraft type, ventilation, packing, stowage, presence of live animals, and other factors. The Shipper must consult IATA DGR packing instructions for Dry Ice before loading onto the aircraft.
2. Ground staff must be informed when dry ice is loaded or onboard.
3. If Riyadh Air adds more dry ice to a shipper prepared unit, the updated quantity must be provided to the pilot-in-command.
4. Crew/passenger checked baggage with dry ice must have proper marking and quantity indications.



RIYADH AIR  
طيران الرياض

## DANGEROUS GOODS MANUAL

4 DANGEROUS GOODS TRANSPORT PROCEDURES

4.6 HANDLING

Issue: 00

Revision: 00

Date: 18-FEB-2024



Figure 13: Dry Ice Label

### 4.6.3.6 Loading Cryogenic Liquids

Packages of cryogenic liquids can be carried after making arrangements considering aircraft type, other temperature-sensitive cargo, presence of live animals, and allowing venting before cargo door opening.

### 4.6.3.7 Loading Live Animals with Dangerous Goods

1. Live animals should not be stowed near dry ice, which concentrates at lower levels. Animals must go above dry ice packages.
2. Category II-III packages require minimum separation distances from live animals based on journey duration.

*Note: In certain circumstances carbon dioxide, solid (dry ice) may be packaged with live animals as a coolant, e.g. bees. All other requirements for the transport of carbon dioxide, solid (dry ice) must be met.*

### 4.6.3.8 Loading Mobility Aids with Batteries

1. Wheelchairs/mobility aids with certain batteries can be loaded as checked baggage based on battery type and with approval.
2. Spillable batteries must meet more stringent loading requirements.
3. The pilot-in-command must be informed of battery locations.
4. Advance arrangements are recommended. Spill-resistant vents should be used when feasible.
5. Mobility aid battery handling labels can identify if the battery has been removed or not. See figure



RIYADH AIR  
طيران الرياض

## DANGEROUS GOODS MANUAL

4	DANGEROUS GOODS TRANSPORT PROCEDURES
4.6	HANDLING

Issue:	00
Revision:	00
Date:	18-FEB-2024

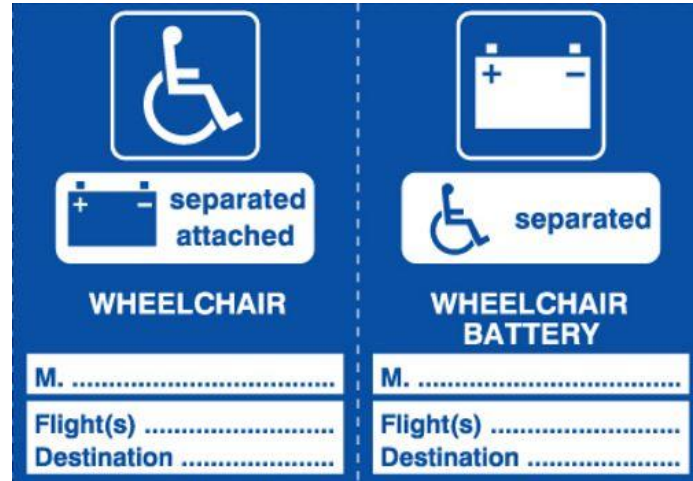


Figure 14: Battery-powered Wheelchair and Mobility Aid Label

### 4.6.4 Inspection

After unloading dangerous goods from an aircraft or unit load device, Riyadh Air must thoroughly inspect all packages, overpacks, cargo areas and containment systems for any signs of damage or leakage that could have occurred during transport. Finding evidence of such issues requires immediate and proper response actions to isolate hazards, decontaminate affected areas, notify appropriate authorities, and protect persons, property and the environment from further exposure or harm. The special responsibilities of operators regarding radioactive materials is stated in [Chapter 5](#).

#### For infectious substances:

1. Avoid handling leaking or damaged packages or minimize handling.
2. Isolate any potentially contaminated adjacent packages.
3. Notify public health authorities and provide details on possible exposure.
4. Inform the shipper and consignee.

#### For damaged or leaking packages:

1. Restrict access to the package.
2. Follow local safety and emergency procedures.
3. Consider additional steps to protect persons, property, and the environment.
4. Account for GHS pictograms suggesting environmental/health risks.

## 4.7 PROVISION OF INFORMATION

*GACAR § 109 Subpart E*

### 4.7.1 Information to the Pilot-in-Command

1. Written information must be provided about all dangerous goods loaded, including proper shipping name, UN/ID number, class/division, packing group, number/type of packages, quantity, loading location, unloading airport, and any other relevant details.
2. This information must be provided as early as possible before departure, but no later than aircraft movement under its own power.
3. Operational control personnel must also receive the same information.
4. The pilot must indicate receipt of the information. Confirmation that there was no evidence of damage or leaks must also be provided.
5. A copy must be kept on the ground and accessible until arrival.
6. The information must be readily available to the pilot during flight.

Instructions shall be written in English primarily and any other language(s) dictated by the state of origin.

### 4.7.2 Information by Pilot-in-Command in In-Flight Emergency

If an in-flight emergency occurs, the pilot-in-command must inform air traffic control as soon as possible about any dangerous goods on board, including the proper shipping name, UN number, class, quantity and location.

### 4.7.3 Information to Passengers

When accepting excess baggage as cargo, Riyadh Air must seek confirmation from passengers that it does not contain any prohibited dangerous goods.

Riyadh Air will implement multiple touchpoints to inform passengers of dangerous goods regulations and ensure prohibited items are not brought on board inadvertently.

During ticket purchase and check-in, the booking page and confirmation emails will prominently display warnings that dangerous goods are not permitted in carry-on or checked baggage. Links will provide access to lists of common prohibited items.

At the Check-in counters Riyadh Air will display posters advising passengers of dangerous goods restrictions. Agents will be trained to spot prohibited items and explain regulations to non-compliant passengers.



RIYADH AIR  
طيران الرياض

## DANGEROUS GOODS MANUAL

4	DANGEROUS GOODS TRANSPORT PROCEDURES
4.7	PROVISION OF INFORMATION

<b>Issue:</b>	00
<b>Revision:</b>	00
<b>Date:</b>	18-FEB-2024

Before the security checkpoint, large signage will warn passengers about prohibited dangerous goods and request declaration of any restricted exceptions. Agents at the boarding gate will also monitor passengers and carry-ons for potential violations.

Pre-flight safety briefings and inflight announcements will remind passengers that dangerous goods are completely forbidden aboard Riyadh Air aircraft.

Riyadh Air will ensure adequate resources to avoid carriage of undeclared dangerous goods by passengers. Information will be provided on prohibited items in the following ways:

1. Dangerous goods information provided to passengers during online or agent booking.
2. Notification of restrictions included on printed tickets.
3. Verbal reminders during passenger check-in procedures.
4. Dangerous goods cards distributed onboard with the passenger briefing cards.
5. Verbal confirmation by cabin crew that passengers:
  - a. Understand the restrictions on dangerous goods.
  - b. Are not carrying any prohibited items.
  - c. Any permitted exceptions are in accordance with regulations.

At KSA airports, security screening per GACA requirements is performed by airport personnel. All passengers and baggage pass through this system.

When operating outside KSA, the contracted handling agent and airport must communicate information on forbidden dangerous goods to passengers through visual examples at baggage drop-off and boarding areas.



RIYADH AIR  
طيران الرياض

## DANGEROUS GOODS MANUAL

4	DANGEROUS GOODS TRANSPORT PROCEDURES
4.8	RETENTION OF DOCUMENTS

<b>Issue:</b>	00
<b>Revision:</b>	00
<b>Date:</b>	18-FEB-2024

### 4.8 RETENTION OF DOCUMENTS

*IATA DGR Section 1.3*

Riyadh Air policy of DGR documents retention:

1. At least one copy of all applicable dangerous goods transport documents must be kept for a minimum of 3 months after the flight.
2. Documents to be retained include:
  - a. Shipper's Declaration.
  - b. Other transport documents.
  - c. Acceptance checklist (if completed).
  - d. Identification of acceptance personnel.
  - e. Written information provided to the pilot-in-command.
3. Documents must be printable and made available to authorities upon request.
4. For any unaccepted shipment due to shipper error, copies of the documents, completed checklist, and acceptance personnel identification must also be kept for 3 months.