

# TYPES OF CARGO

ชนิดของสินค้าทางอากาศ

# GENERAL CARGO

General cargo are items that do not fall into the Special Cargo categories and that do not require any extra precautions or special handling during air transport. These types of items are retail and most consumer goods (with the exception of mobile phones, tablets and laptops) , dry goods, hardware, textiles, and more. Think of your average, everyday objects; most of those would fall into the general cargo area.

# SPECIAL CARGO

Special cargo is where things get a little more complicated. Special cargo are goods that, due to their nature, weight, dimensions and/or value, may have specific requirements including packaging, labelling, documentation and handling through the transport chain. The transport of these goods are addressed through specific regulations that must be followed when preparing, offering, accepting and handling this cargo. Items include dangerous goods, live animals, perishable cargo, wet cargo, time and temperature sensitive products among others. To ensure that there are globally harmonized standards that ensures the safe and facilitates of these products, IATA has three Boards: the Dangerous Goods Board (DGB), Time and Temperature Working Group (TTWG), and the Live Animals and Perishables Board (LAPB), which manage the standards and guidance related to the transport of these products.

# Perishable Cargo

fruits, pharmaceuticals, vegetables, frozen fish or flowers, perishables are, due to their nature, often shipped via air. These products are usually for human consumption, have a short shelf life and closely monitored by national government bodies. Ensuring this cargo is delivered at its destination within the best conditions requires a thorough understanding of the most up-to-date regulations and procedures.



# Marking and labeling for shipping perishable goods

The process begins with ensuring that the Air Waybill is filled out completely and accurately and without unreasonable requests for handling the perishables.

The cargo manifest should be labeled with the proper IATA handling codes. These codes are for internal use but ensure your perishable goods are handled properly. Cargo handling codes can be found in Appendix D of the IATA PCR. (Perishable Cargo Regulations)

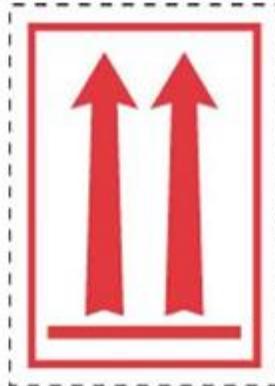
<https://www.iata.org/en/publications/store/perishable-cargo-regulations/>

All perishable shipments should be labelled with the standard IATA "PERISHABLE" label:



- (a) Name of label: Perishable
- (b) Color: Blue printing on white background
- (c) Size: Not less than 74 mm (2 15/16 in.) in width by 105 mm (4 1/8 in.) in height.

Where appropriate, packages and containers of perishable goods should also be labelled with the standard IATA package orientation ("THIS WAY UP") label:



- (a) Name of label: This Way Up
- (b) Color: Red on white background
- (c) Size: Not less than 74 mm (2 15/16 in.) in width by 105 mm (4 1/8 in.) in height.
- (d) Optional: Carrier identification may be printed outside the border of the label.

Proper labelling is particularly important as perishables are to be handled as "wet cargo".

Dry ice is classified as dangerous goods. If perishable cargo is shipped with dry ice as a refrigerant, it is necessary to refer to the IATA Dangerous Goods Regulations for details of labelling and marking requirements.

When loaded in a ULD, the ULD label/tag should be marked with the "PER" special handling code.

Other documentation may be required, such as some countries may need the permit numbers included on the cargo manifest.

Shippers should always mark what is contained in the packaging and whether dry ice is used because it is classified as a dangerous goods. Then the packaging should be correctly labeled with the standard IATA label as such: "perishable," "this way up," or "wet cargo."

# shipping live animals

The worldwide standard for transporting live animals by air is set by the IATA Live Animals Regulations (LAR). These regulations are put in place to ensure the safety of the animals and of transport workers and passengers.

<https://www.iata.org/en/publications/store/live-animals-regulations/>



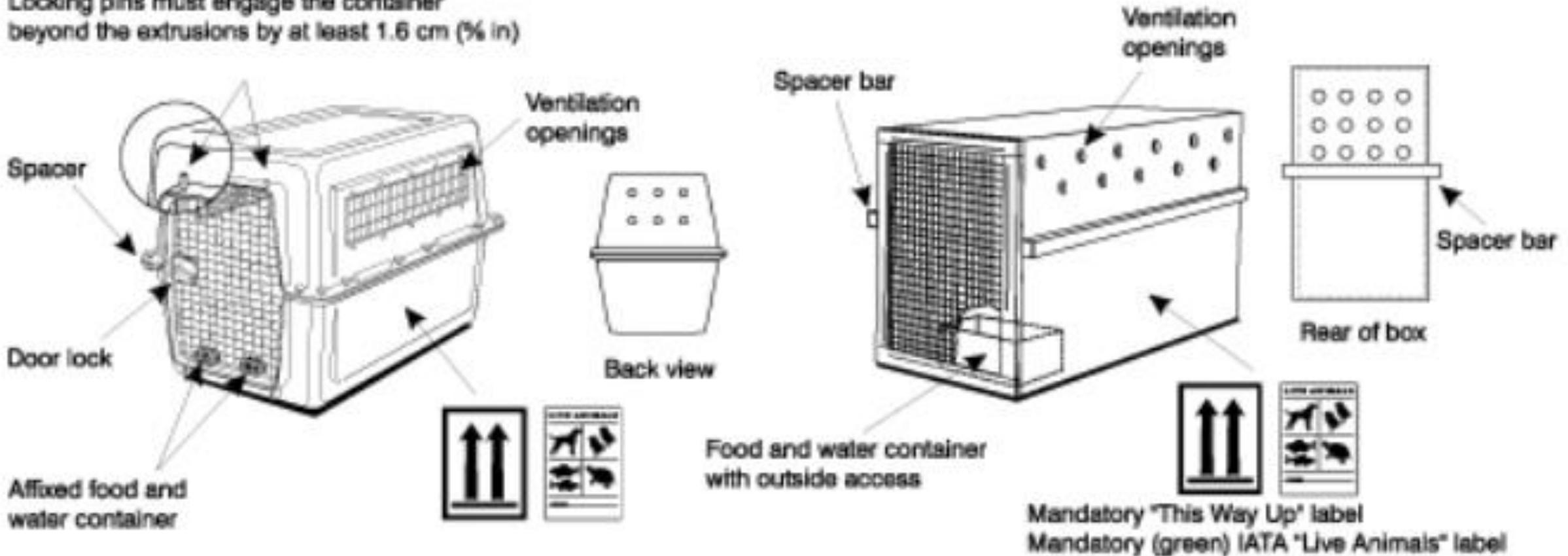
## **Celebrating the 50th Edition**

**The IATA Live Animals Regulations (LAR)**



## TYPICAL RIGID PLASTIC DOG CONTAINER

Locking pins must engage the container beyond the extrusions by at least 1.6 cm (5/8 in)



Other information that should be included is whether an animal is poisonous or if it bites. Any feeding or care instructions should be visibly posted as well.

# Handling procedures for shipping live animals

When shipping live animals, the shippers are responsible for ensuring all animals are healthy and in good condition. The carriers have a responsibility to make sure that the shippers have complied with all of the regulations.

When ensuring the guidelines are met, they must check:

The details of the documentation.

The design of the container.

Marking and labeling.

Routing and reservation information.

# Handling procedures for shipping live animals

Animals should only be loaded into approved carrier compartments and never into an aircraft unit load device (ULD). Animal containers should always be loaded in an upright position and with as little disturbance as possible. They should be loaded as close to departure as possible.

Live animals should not be stored next to certain dangerous goods or food items unless hermetically sealed.

Upon unloading live animals, the cargo area must be adequately cleaned and disinfected by personnel wearing appropriate gloves and boots.

# Marking and labeling for shipping live animals

When dealing with the shipping of live animals, proper marking and labeling is crucial and is always required. Labels should be printed and adhered to the outside of the animal container. English must always be used in addition to the original language used by the shipper.

Each container should be marked clearly and legibly with the full name, address, current contact number of the shipper, consignee, and a 24-hour contact if they are not one of the previously mentioned people. It should also list the animal's common and scientific names and list the number of animals within the container. For some common animals, the scientific name is unnecessary,

# DANGEROUS GOODS

It provides everything needed to classify, prepare, accept and handle dangerous goods shipments in compliance with international air transport regulations.

IATA works closely with governments, other industry associations and the International Civil Aviation Organization (ICAO) in the development of these regulations.

<https://www.youtube.com/watch?v=Yrl6QfoO16Q&t=10s>

"explode, dangerously react, produce a flame or dangerous evolution of heat or dangerous emission of toxic, corrosive or flammable gases or vapours under conditions normally encountered in transport must not be carried on aircraft under any circumstance,"

## Dangerous goods are grouped into nine classes

Class 1	Explosives	วัตถุระเบิด
Class 2	Gasses	ก๊าซ
Class 3	Flammable Liquids	ของเหลวไวไฟ
Class 4	Flammable Solids	ของแข็งไวไฟ
Class 5	Oxidizing Substances and Organic Peroxides	สารออกซิไดส์และสารอินทรีย์เปอร์ออกไซด์
Class 6	Toxic and Infectious Substances	สารพิษและสารติดเชื้อ
Class 7	7-Radioactive Material	วัสดุกัมมันตรังสี
Class 8	Corrosives	สารกัดกร่อน
Class 9	Miscellaneous Dangerous Substances and Articles	วัตถุอันตรายเบ็ดเตล็ด

# สินค้าอันตรายไม่ต้องห้าม



**ประเภท 1: วัตถุระเบิด**

(เช่น ดอกไม้ไฟหรือพล)



**ประเภท 4.2: สารที่ลุกไหม้ได้เอง**

(เช่น ฟอสฟอรัส)



**ประเภท 2.1: ก๊าซที่ติดไฟได้**

(เช่น กระป๋องสเปรย์หรือก๊าซกระป๋อง)



**ประเภท 4.3: สารที่เมื่อสัมผัสกับน้ำแล้วทำให้เกิดก๊าซที่ติดไฟได้**

(เช่น แคลเซียมคาร์ไบด์)



**ประเภท 2.2: ก๊าซที่ไม่ติดไฟ/ไม่มีสารพิษ**

(เช่น ออกซิเจนบรรยากาศ)



**ประเภท 5.1: ตัวออกซิไดซ์**

(เช่น ปุ๋ย)



**ประเภท 2.3: ก๊าซพิษ**

(เช่น คาร์บอนมอนอกไซด์)

*FedEx จะไม่รับจัดส่ง*



**ประเภท 5.2: เปอร์ออกไซด์ชีวภาพ**

(เช่น ชุดซ่อมไฟเบอร์กลาส)



**ประเภท 3: ของเหลวไวไฟ**

(เช่น ตัวทำละลายหรือสี)



**ประเภท 8: สารกัดกร่อน**

(เช่น น้ำยาฟอกสีหรือน้ำยาทำความสะอาดท่อ)



**ประเภท 4.1: ของแข็งที่ติดไฟได้**

(เช่น ไม้ขีดไฟ)

# สินค้าอันตรายต้องห้าม



## ประเภท 6.1: สารพิษ

(เช่น ยาฆ่าแมลง)



## ประเภท 7: วัสดุถุกัมมันตรังสี

(เช่น เครื่องตรวจจับควัน)

ยอมรับจัดส่งในบางประเทศเท่านั้น



## ประเภท 6.2: สารติดเชื้อ

(เช่น ชุดทดสอบเลือดหรือการทดลองทางการแพทย์)



## ประเภท 9: สินค้า สาร และวัตถุอันตรายเบ็ดเตล็ด

(เช่น ถูกลมนิรภัย แม่เหล็ก แบตเตอรี่ลิเธียม และน้ำแข็งแห้ง)

น้ำแข็งแห้งไม่หลอมละลายเหมือนน้ำแข็งทั่วไป แต่จะระเหิดกลายเป็นก๊าซคาร์บอนไดออกไซด์แทน ควรนำไปใช้กับภาชนะๆ ที่มีอากาศถ่ายเทสะดวก ไม่ควรเก็บไว้ในภาชนะที่ปิดสนิท เพราะก๊าซอาจรวมตัวและระเบิดขึ้นได้



**CLASS 1  
EXPLOSIVE  
DIVISIONS 1.1, 1.2, 1.3**



**CLASS 2  
GASES:  
FLAMMABLE  
DIVISION 2.1**



**CLASS 4  
FLAMMABLE  
SOLIDS  
DIVISION 4.1**



**CLASS 5  
ORGANIC  
PEROXIDES  
DIVISION 5.2**



**CLASS 7  
RADIOACTIVE  
MATERIAL  
CATEGORY II - YELLOW**



**CLASS 1  
EXPLOSIVE  
DIVISION 1.4**



**CLASS 2  
GASES:  
NON-FLAMMABLE,  
NON-TOXIC  
DIVISION 2.2**



**CLASS 4  
SUBSTANCES LIABLE  
TO SPONTANEOUS  
COMBUSTION  
DIVISION 4.2**



**CLASS 6  
TOXIC SUBSTANCES  
DIVISION 6.1**



**CLASS 7  
RADIOACTIVE  
MATERIAL  
CATEGORY III - YELLOW**



**CLASS 1  
EXPLOSIVE  
DIVISION 1.5**



**CLASS 2  
GASES:  
TOXIC  
DIVISION 2.3**



**CLASS 4  
SUBSTANCES WHICH IN  
CONTACT WITH WATER  
EMIT FLAMMABLE GASES  
DIVISION 4.3**



**CLASS 6  
INFECTIOUS  
SUBSTANCES  
DIVISION 6.2**



**CLASS 8  
CORROSIVES**



**CLASS 1  
EXPLOSIVE  
DIVISION 1.6**



**CLASS 3  
FLAMMABLE  
LIQUIDS**



**CLASS 5  
OXIDIZING  
SUBSTANCES  
DIVISION 5.1**



**CLASS 7  
RADIOACTIVE  
MATERIAL  
CATEGORY I - WHITE**



**CLASS 9  
MISCELLANEOUS  
DANGEROUS GOODS**

# Hazardous Material Placards

## CLASS 1

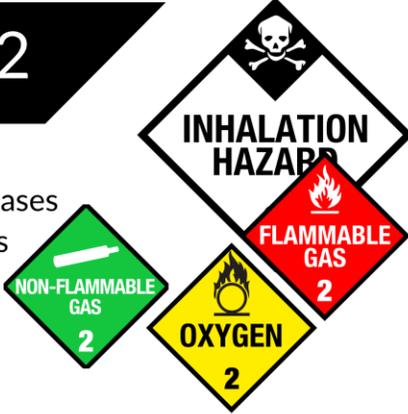
Explosives



1.6 EXPLOSIVES N 1  
1.5 BLASTING AGENTS 1  
1.6 EXPLOSIVES \* 1  
1 EXPLOSIVES

## CLASS 2

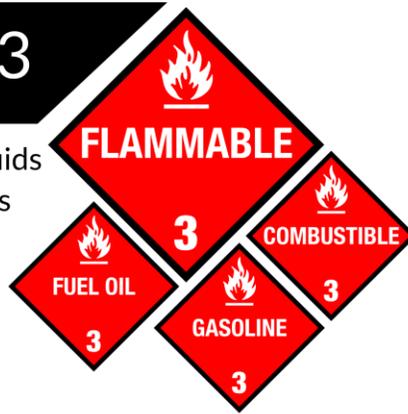
Flammable Gases  
Non-Flammable Gases  
Inhalation Hazards  
Oxygen



INHALATION HAZARD  
NON-FLAMMABLE GAS 2  
OXYGEN 2  
FLAMMABLE GAS 2

## CLASS 3

Combustible Liquids  
Flammable Liquids



FLAMMABLE 3  
FUEL OIL 3  
GASOLINE 3  
COMBUSTIBLE 3

## CLASS 4

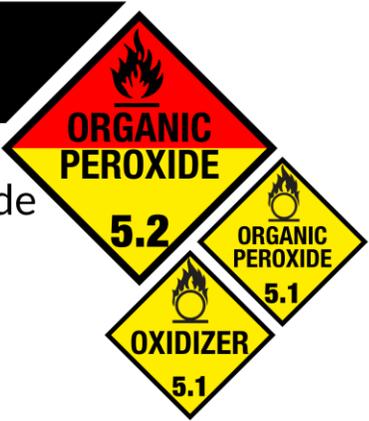
Flammable Solids  
Dangerous When Wet  
Spontaneously Combustible



FLAMMABLE SOLID 4  
SPONTANEOUSLY COMBUSTIBLE 4  
DANGEROUS WHEN WET 4

## CLASS 5

Oxidizers  
Organic Peroxide



ORGANIC PEROXIDE 5.2  
OXIDIZER 5.1  
ORGANIC PEROXIDE 5.1

## CLASS 6

Poisons (Toxic)  
Inhalation Hazard



INHALATION HAZARD 6  
PG III 6  
POISON 6

## CLASS 7

Radioactive Materials



RADIOACTIVE 7

## CLASS 8

Corrosives



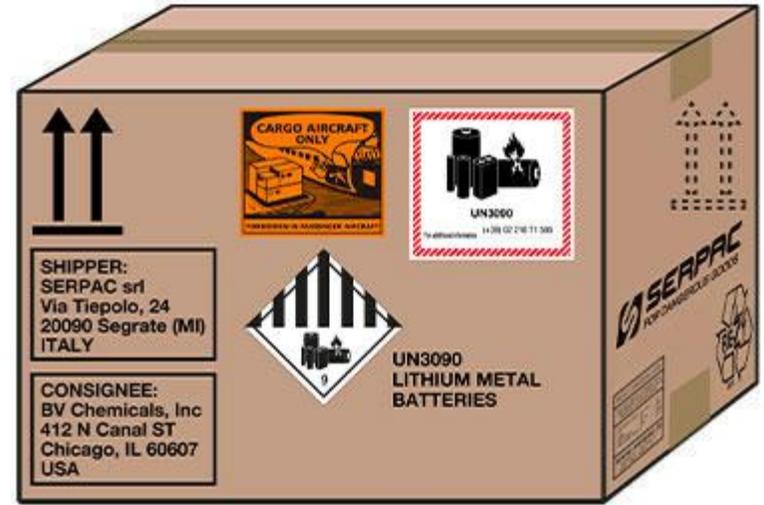
CORROSIVE 8

## CLASS 9

Miscellaneous Hazardous Materials



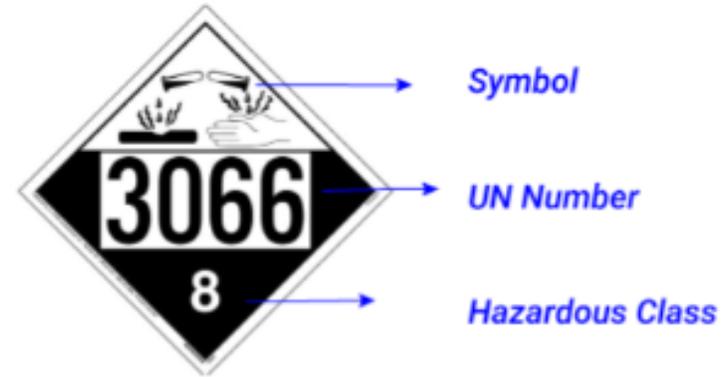
9



- ① Orientation label (optional)
- ② Primary class label
- ③ Standardized UN certification (according to standard)
- ④ Shipping name
- ⑤ UN number
- ⑥ Subsidiary class label

A United Nations (UN) Number is a four-digit number that identifies dangerous or hazardous substances and goods (e.g. explosives, flammable items, or poisonous substances)

## UN Number Label Structure:



The labels have 3 parts:

1. A symbol which indicates the hazardous class

2. The UN Number

3. The Hazardous Class Number

Lithium Battery Label	Corrosives	Paint

Pictogram							
Pictogram Name	Explosive	Gases Under Pressure	Flammable	Oxidizer	Toxic	Corrosive	Aquatic Toxicity
Appears on	Explosives		Gases Aerosols Liquids Solids	Oxidizing Gases Oxidizing Liquids Oxidizing Solids	Acute Toxicity Skin Oral Inhalation	Corrosive to Metal Skin Corrosion Serious Eye Damage	Acute Chronic
	Self Reactive Substances and Mixtures		Self Reactive Substances and Mixtures Pyrophoric Liquids and Solids				
	Organic Peroxides		Self-Heating Substances and Mixtures				
			Substances and Mixtures, Which in Contact With Water, Emit Flammable Gases				
			Organic Peroxides				

ข้อมูลเพิ่มเติม

<http://thailandindustry.com/onlinemag/view2.php?id=1134&section=30&issues=78>



# **Dangerous Goods by Air**

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The transportation procedure

**How dnata**

**optimized their**

**dangerous goods**

**operations.**



**DG AutoCheck**