

# Safe Transport of Dangerous Goods by Air

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17-19 June 2019

**Your safety is our mission.**

# Safe Transport of Dangerous Goods by Air

## Part 10 – Radioactive Material

Doc 9284

Technical Instructions for the Safe  
Transport of Dangerous Goods by Air

2019-2020 Edition



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INTERNATIONAL CIVIL AVIATION ORGANIZATION

## ATOMS

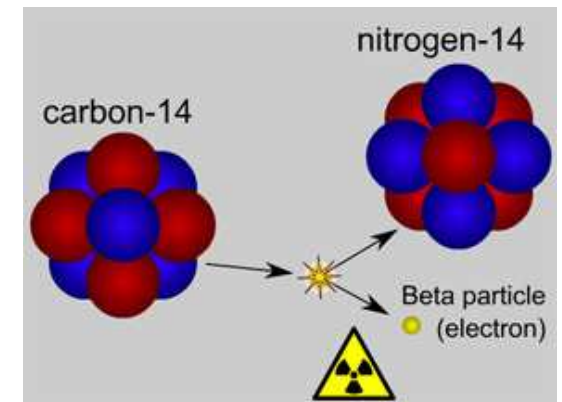
- **Material** is an **atom combination**
- There is around **100 kind of different atoms**
- The **difference** between atoms is **related** to their **internal structure**, and to their **chemical properties**

Mendeleev Periodic Table

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## ATOM'S ISOTOPES

- A kind of atom exists in **several "sort"**, named **isotopes**
- 2 isotopes of an atom have:
  - ✓ the **same chemical properties**
  - ✓ **different masses**
- Example: Standard Carbon = **"Carbon 12"**, but there is also **"Carbon 14"**
- Some isotopes are **unstable**, and named **"radioisotope"**
- Example: Carbon 14 isotopes are **disintegrating** themselves in a **natural way**
- A **disintegration** is a **transformation in another isotope/atom and particle emission or a radiation**
- Example: **Carbon 14 = Nitrogen 14 +  $\ll \beta^- \gg$**



## BECQUEREL

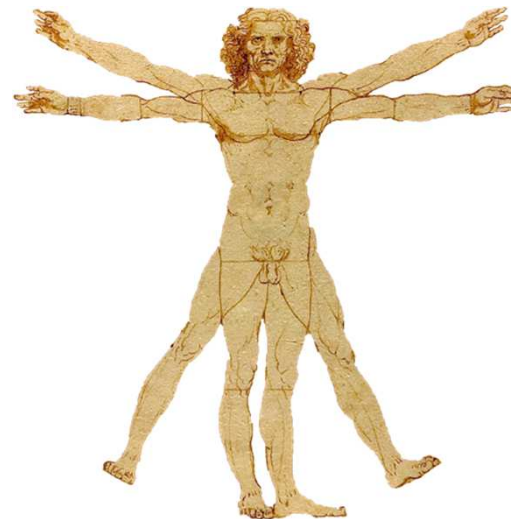
➤ **Definition: 1 disintegration per minute = 1 Becquerel (Bq)**

➤ **Usual activities:**

✓ **1 banana = 20 Bq**



✓ **human body = 100 Bq / kg**



✓ **into a radiopharmaceutical package "RRY" carried by air = 50 to 100 GBq**

**(1 GBQ = 1 000 000 000 Bq =  $10^9$  Bq)**



## SIEVERT

- When there is a **disintegration** (transformation in another isotope and particle emission or radiation):
  - **different types of radiation/particle may occur** ( $\alpha$ ,  $\beta^+$ ,  $\beta^-$ ,  $\gamma$ , neutron)
  - the **radiation type** and the associated **energy** are **dependent** to the **radionuclide**
- **Definition:**
  - **Sievert** is the **measurement** of the **damages** done by the **radiation** on **human body**
- **As the type of radiation and its associated energy is dependent to each radionuclide**
  - **there is no direct link between Becquerel and Sievert**

## SIEVERT

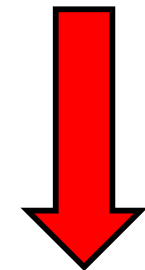
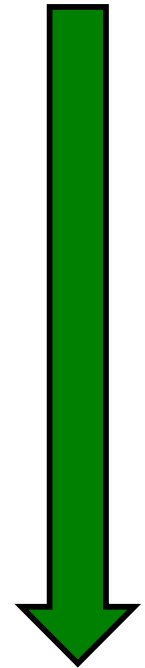
### ➤ **radiation exposure time** (examples):

- ✓ to eat a banana: 0,1  $\mu\text{Sv}$
- ✓ teeth panoramic radio: 5  $\mu\text{Sv}$
- ✓ exposure limit for public (except medical, ...): 1 mSv/year
- ✓ average natural radioactivity in Europe:  
2,4 mSv/year/habitant (can be 10 to 50 mSv in certain parts of India, China or Brazil)
- ✓ crew staff: 3 to 5 mSv/year
- ✓ thoracic scanner: 7 mSv
- ✓ exposure limit for nuclear workers: 20 mSv/year

➤ **100 mSv** exposure once = **15 % increasing** of **cancer's** risk

➤ **1 Sv** exposure once = **burns**

➤ **5 Sv** exposure once = **50 %** chance to **survive**





## Protection against radiation

### ➤ 3 types of protection:

✓ Time: **reduction** of the **time** spent near a **radiation source**

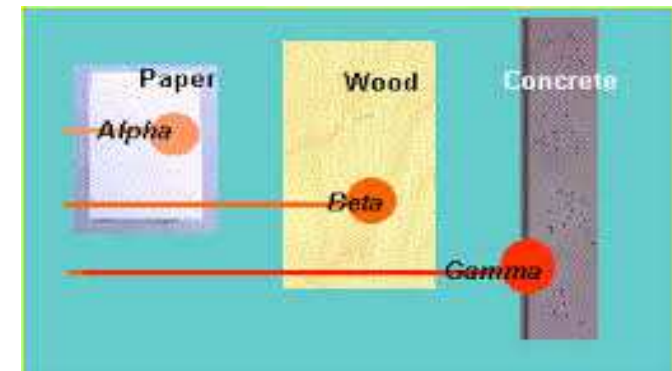


✓ Distance: exposure **decreases** with **square distance**

- at **1 m** → **4 mSv/h**
- at **2 m** → **1 mSv/h**
- at **10 m** → **0,04 mSv/h**

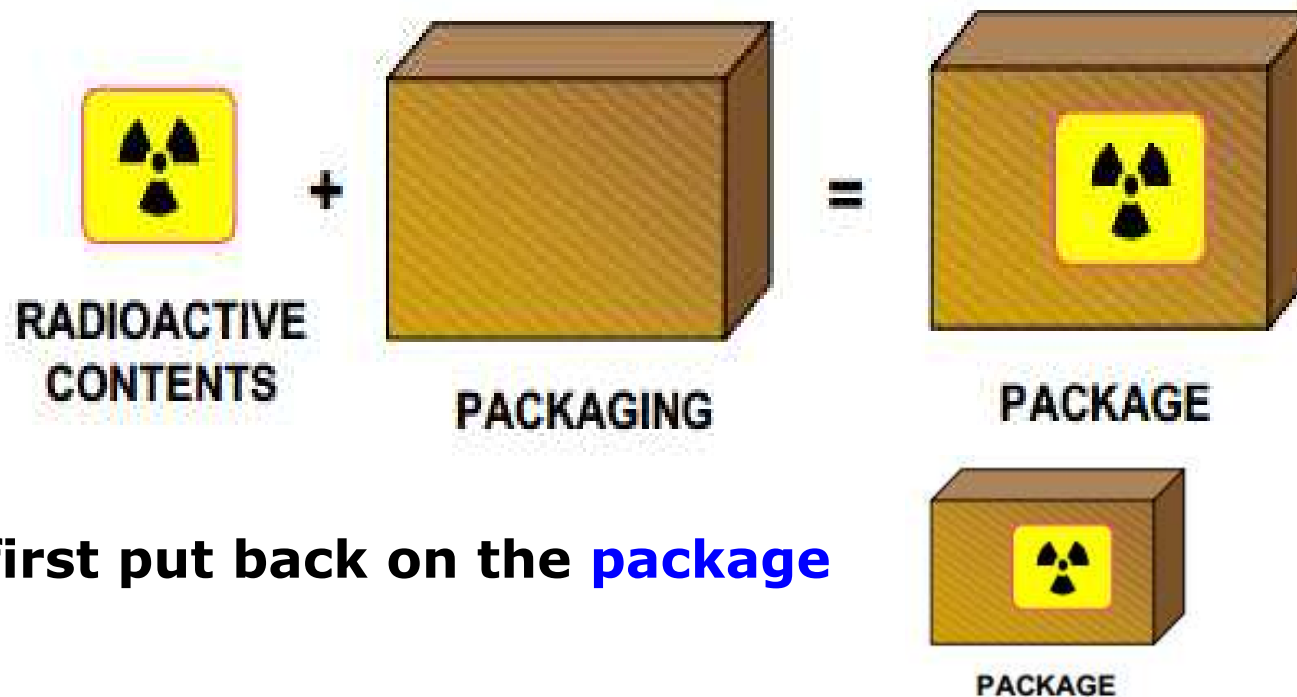


✓ Screen: **radiation** is **absorbed** by these material





## Terminology



- **Safety** is first put back on the **package**
- **More dangerous** is the **contents**, **more resistant** the **package** shall be !
- There is **different types** of **packages**, for **different types** and **quantity** of **material**, depending of their **dangerousness**

Mass activity (Bq/g)

➤ **Classification of Radioactive Material is linked to:**

✓ **Total Activity** (in Becquerel)

✓ **Mass Activity** (in Becquerel per gram)

Total activity  
(Bq)

## Exempted Material

➤ Conditions to be **fully exempted**:

→ for each radionuclide, depending of its atomic number

**Activity Concentration Limit**

**OR**

**Activity Limit per package**



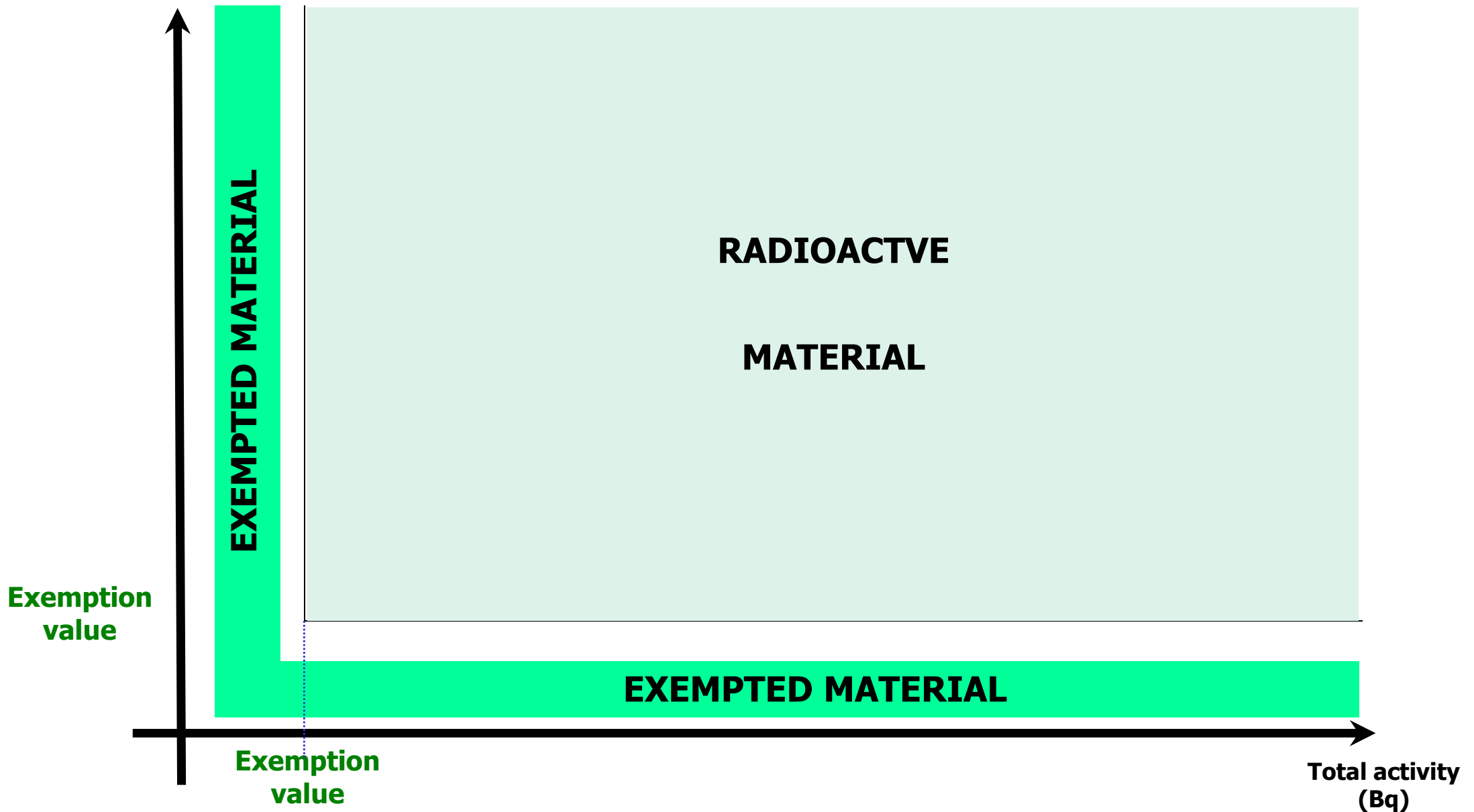
**Threshold Limit (Table 2-12)**

**Table 2-12. Basic radionuclides values for individual radionuclides**

<i>Radionuclide (atomic number)</i>	<i>Special form <math>A_1</math> (TBq)</i>	<i>Other form <math>A_2</math> (TBq)</i>	<i>Activity concentration limit for exempt material (Bq/g)</i>	<i>Activity limit for an exempt consignment (Bq)</i>
Actinium (89)				
Ac-225 (a)	$8 \times 10^{-1}$	$6 \times 10^{-3}$	$1 \times 10^1$	$1 \times 10^4$
Ac-227 (a)	$9 \times 10^{-1}$	$9 \times 10^{-5}$	$1 \times 10^{-1}$	$1 \times 10^3$
Ac-228	$6 \times 10^{-1}$	$5 \times 10^{-1}$	$1 \times 10^1$	$1 \times 10^6$
Silver (47)				
Ag-105	$2 \times 10^0$	$2 \times 10^0$	$1 \times 10^2$	$1 \times 10^6$
Ag-108m (a)	$7 \times 10^{-1}$	$7 \times 10^{-1}$	$1 \times 10^1$ (b)	$1 \times 10^6$ (b)
Ag-110m (a)	$4 \times 10^{-1}$	$4 \times 10^{-1}$	$1 \times 10^1$	$1 \times 10^6$
Ag-111	$2 \times 10^0$	$6 \times 10^{-1}$	$1 \times 10^3$	$1 \times 10^6$

# CLASSIFICATION

Mass activity (Bq/g)



## Radioactive Material

- A radioactive material **can be classified** as:
  - **Excepted** package
  - **Type A** Package
  - **Type B** Package
  - **Industrial** Package (IP1, IP2, IP3)
  - **Type C** Package
- For **each radionuclide**, it has been determined a **risk threshold** as:  
**30 mn of exposure at 1 m of the material without protection = 50 mSv**
- it gives two **values**:
  - **A<sub>1</sub>** = activity of the radionuclide which is in a form non “easily dispersible”, called “**special form**”
  - **A<sub>2</sub>** = activity of the radionuclide which is in a “dispersible” form, called “**non-special form**”
  - **Table 2-12** (IATA DGR Table 10.3.A) **provides these basic radionuclides values for individual radionuclides**

Table 2-12. Basic radionuclides values for individual radionuclides

Radionuclide (atomic number)	Special form $A_1$ (TBq)	Other form $A_2$ (TBq)	Activity concentration limit for exempt material (Bq/g)	Activity limit for an exempt consignment (Bq)
Actinium (89)				
Ac-225 (a)	$8 \times 10^{-1}$	$6 \times 10^{-3}$	$1 \times 10^1$	$1 \times 10^4$
Ac-227 (a)	$9 \times 10^{-1}$	$9 \times 10^{-5}$	$1 \times 10^{-1}$	$1 \times 10^3$
Ac-228	$6 \times 10^{-1}$	$5 \times 10^{-1}$	$1 \times 10^1$	$1 \times 10^5$
Silver (47)				
Ag-105	$2 \times 10^0$	$2 \times 10^0$	$1 \times 10^2$	$1 \times 10^5$
Ag-108m (a)	$7 \times 10^{-1}$	$7 \times 10^{-1}$	$1 \times 10^1$ (b)	$1 \times 10^5$ (b)
Ag-110m (a)	$4 \times 10^{-1}$	$4 \times 10^{-1}$	$1 \times 10^1$	$1 \times 10^5$
Ag-111	$2 \times 10^0$	$6 \times 10^{-1}$	$1 \times 10^3$	$1 \times 10^5$
Aluminium (13)				
Al-26	$1 \times 10^{-1}$	$1 \times 10^{-1}$	$1 \times 10^1$	$1 \times 10^5$
Americium (95)				
Am-241	$1 \times 10^1$	$1 \times 10^{-3}$	$1 \times 10^0$	$1 \times 10^4$
Am-242m (a)	$1 \times 10^1$	$1 \times 10^{-3}$	$1 \times 10^0$ (b)	$1 \times 10^4$ (b)
Am-243 (a)	$5 \times 10^0$	$1 \times 10^{-3}$	$1 \times 10^0$ (b)	$1 \times 10^3$ (b)
Argon (18)				
Ar-37	$4 \times 10^1$	$4 \times 10^1$	$1 \times 10^5$	$1 \times 10^8$
Ar-39	$4 \times 10^1$	$2 \times 10^1$	$1 \times 10^7$	$1 \times 10^4$
Ar-41	$3 \times 10^{-1}$	$3 \times 10^{-1}$	$1 \times 10^2$	$1 \times 10^3$
Arsenic (33)				
As-72	$3 \times 10^{-1}$	$3 \times 10^{-1}$	$1 \times 10^1$	$1 \times 10^5$
As-73	$4 \times 10^1$	$4 \times 10^1$	$1 \times 10^3$	$1 \times 10^7$
As-74	$1 \times 10^0$	$9 \times 10^{-1}$	$1 \times 10^1$	$1 \times 10^5$
As-76	$3 \times 10^{-1}$	$3 \times 10^{-1}$	$1 \times 10^2$	$1 \times 10^5$
As-77	$2 \times 10^1$	$7 \times 10^{-1}$	$1 \times 10^3$	$1 \times 10^5$
Astatine (85)				
At-211 (a)	$2 \times 10^1$	$5 \times 10^{-1}$	$1 \times 10^3$	$1 \times 10^7$
Gold (79)				
Au-193	$7 \times 10^0$	$2 \times 10^0$	$1 \times 10^2$	$1 \times 10^7$
Au-194	$1 \times 10^0$	$1 \times 10^0$	$1 \times 10^1$	$1 \times 10^5$
Au-195	$1 \times 10^1$	$6 \times 10^0$	$1 \times 10^2$	$1 \times 10^7$
Au-198	$1 \times 10^0$	$6 \times 10^{-1}$	$1 \times 10^2$	$1 \times 10^5$
Au-199	$1 \times 10^1$	$6 \times 10^{-1}$	$1 \times 10^2$	$1 \times 10^5$
Barium (56)				
Ba-131 (a)	$2 \times 10^0$	$2 \times 10^0$	$1 \times 10^2$	$1 \times 10^5$
Ba-133	$3 \times 10^0$	$3 \times 10^0$	$1 \times 10^2$	$1 \times 10^5$

Radionuclide (atomic number)	Special form $A_1$ (TBq)	Other form $A_2$ (TBq)	Activity concentration limit for exempt material (Bq/g)	Activity limit for an exempt consignment (Bq)
Ba-133m	$2 \times 10^1$	$6 \times 10^{-1}$	$1 \times 10^2$	$1 \times 10^5$
Ba-140 (a)	$5 \times 10^{-1}$	$3 \times 10^{-1}$	$1 \times 10^1$ (b)	$1 \times 10^5$ (b)
Beryllium (4)				
Be-7	$2 \times 10^1$	$2 \times 10^1$	$1 \times 10^3$	$1 \times 10^7$
Be-10	$4 \times 10^1$	$6 \times 10^{-1}$	$1 \times 10^4$	$1 \times 10^5$
Bismuth (83)				
Bi-205	$7 \times 10^{-1}$	$7 \times 10^{-1}$	$1 \times 10^1$	$1 \times 10^5$
Bi-206	$3 \times 10^{-1}$	$3 \times 10^{-1}$	$1 \times 10^1$	$1 \times 10^5$
Bi-207	$7 \times 10^{-1}$	$7 \times 10^{-1}$	$1 \times 10^1$	$1 \times 10^5$
Bi-210	$1 \times 10^0$	$6 \times 10^{-1}$	$1 \times 10^3$	$1 \times 10^5$
Bi-210m(a)	$6 \times 10^{-1}$	$2 \times 10^{-2}$	$1 \times 10^1$	$1 \times 10^5$
Bi-212 (a)	$7 \times 10^{-1}$	$6 \times 10^{-1}$	$1 \times 10^1$ (b)	$1 \times 10^5$ (b)
Berkelium (97)				
Bk-247	$8 \times 10^0$	$8 \times 10^{-4}$	$1 \times 10^0$	$1 \times 10^4$
Bk-249 (a)	$4 \times 10^1$	$3 \times 10^{-1}$	$1 \times 10^3$	$1 \times 10^5$
Bromine (35)				
Br-76	$4 \times 10^{-1}$	$4 \times 10^{-1}$	$1 \times 10^1$	$1 \times 10^5$
Br-77	$3 \times 10^0$	$3 \times 10^0$	$1 \times 10^2$	$1 \times 10^5$
Br-82	$4 \times 10^{-1}$	$4 \times 10^{-1}$	$1 \times 10^1$	$1 \times 10^5$
Carbon (6)				
C-11	$1 \times 10^0$	$6 \times 10^{-1}$	$1 \times 10^1$	$1 \times 10^5$
C-14	$4 \times 10^1$	$3 \times 10^0$	$1 \times 10^4$	$1 \times 10^7$
Calcium (20)				
Ca-41	Unlimited	Unlimited	$1 \times 10^5$	$1 \times 10^7$
Ca-45	$4 \times 10^1$	$1 \times 10^0$	$1 \times 10^4$	$1 \times 10^7$
Ca-47 (a)	$3 \times 10^0$	$3 \times 10^{-1}$	$1 \times 10^1$	$1 \times 10^5$
Cadmium (48)				
Cd-109	$3 \times 10^1$	$2 \times 10^0$	$1 \times 10^4$	$1 \times 10^5$
Cd-113m	$4 \times 10^1$	$5 \times 10^{-1}$	$1 \times 10^3$	$1 \times 10^5$
Cd-115 (a)	$3 \times 10^0$	$4 \times 10^{-1}$	$1 \times 10^2$	$1 \times 10^5$
Cd-115m	$5 \times 10^{-1}$	$5 \times 10^{-1}$	$1 \times 10^3$	$1 \times 10^5$
Cerium (58)				
Ce-139	$7 \times 10^0$	$2 \times 10^0$	$1 \times 10^2$	$1 \times 10^5$
Ce-141	$2 \times 10^1$	$6 \times 10^{-1}$	$1 \times 10^2$	$1 \times 10^7$
Ce-143	$9 \times 10^{-1}$	$6 \times 10^{-1}$	$1 \times 10^2$	$1 \times 10^5$
Ce-144 (a)	$2 \times 10^{-1}$	$2 \times 10^{-1}$	$1 \times 10^2$ (b)	$1 \times 10^5$ (b)
Californium (98)				

## Excepted Package

- Shall respect the **limit activity** indicated in **Table 2-14** (Table 10.3.C), depending of the **physical state** of content (solid, liquid, gas), and if it is an **instrument/article** or a **material**

Table 2-14. Activity limits for excepted packages

<i>Physical state of contents</i>	<i>Instruments or article</i>		<i>Materials</i>
	<i>Item limits*</i>	<i>Package limits*</i>	<i>Package limits*</i>
<b>Solids</b>			
Special form	$10^{-2} A_1$	$A_1$	$10^{-3} A_1$
Other form	$10^{-2} A_2$	$A_2$	$10^{-3} A_2$
<b>Liquids</b>	$10^{-3} A_2$	$10^{-1} A_2$	$10^{-4} A_2$
<b>Gases</b>			
Tritium	$2 \times 10^{-2} A_2$	$2 \times 10^{-1} A_2$	$2 \times 10^{-2} A_2$
Special form	$10^{-3} A_1$	$10^{-2} A_1$	$10^{-3} A_1$
Other forms	$10^{-3} A_2$	$10^{-2} A_2$	$10^{-3} A_2$



## Excepted Package

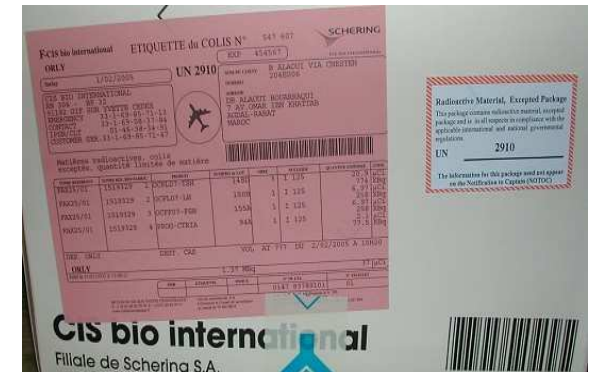
### ➤ Examples:



**toxic gas  
detector**



**lead  
analyzer and  
its bag**



**immune  
diagnosis**

## Excepted Package

- Example of the **lead analyser and its bag** = **Package**
- **Limit** to be classified as an excepted package is  **$A_1$**  in **Bq**
- Example of **toxic gas detector**:
- ✓ **each detector = article, but whole in a packaging = package**

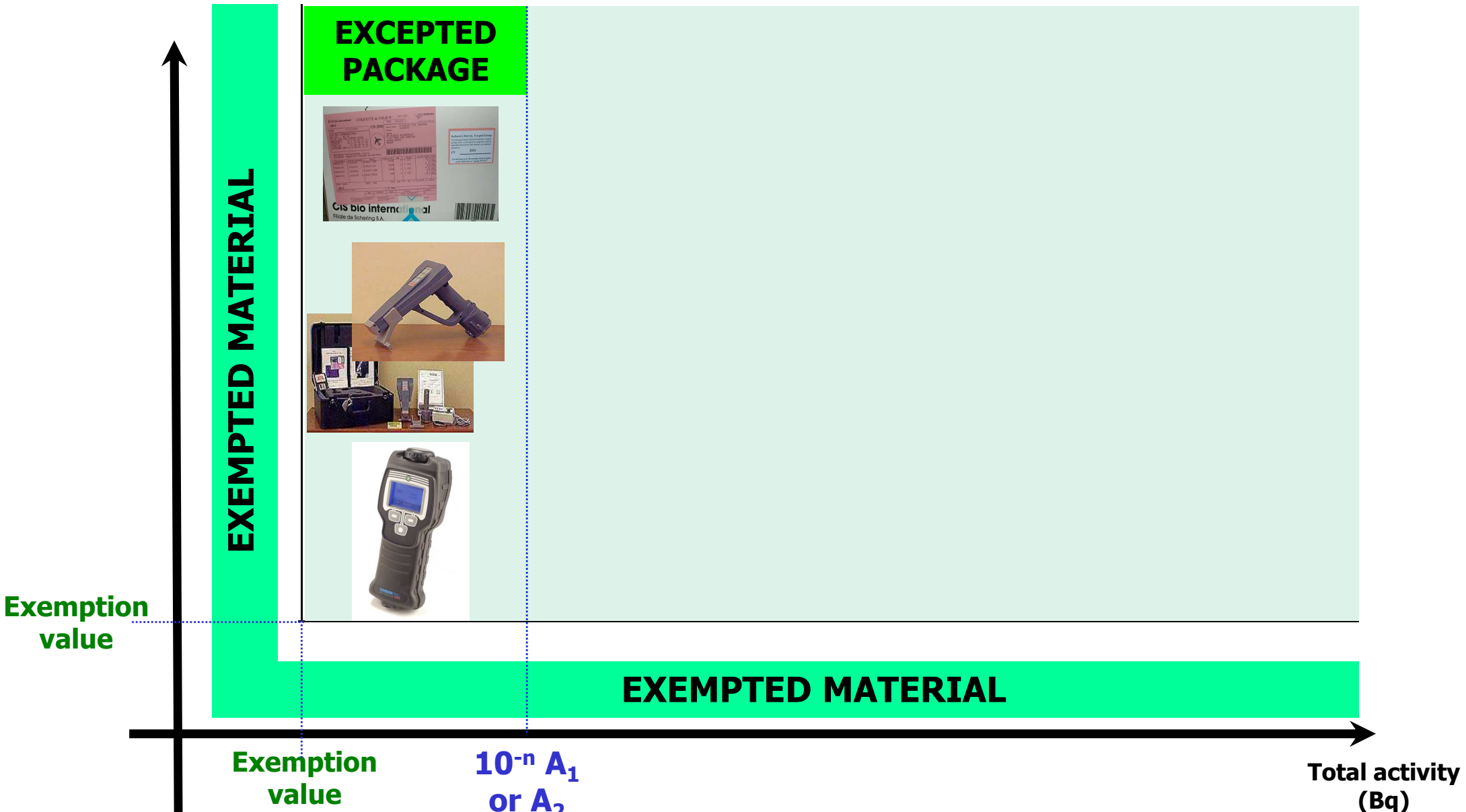
Table 2-14. Activity limits for excepted packages

Physical state of contents	Instruments or article		Materials
	Item limits*	Package limits*	Package limits*
<b>Solids</b>			
Special form	$10^{-2} A_1$	$A_1$	$10^{-3} A_1$
Other form	$10^{-2} A_2$	$A_2$	$10^{-3} A_2$
<b>Liquids</b>	$10^{-3} A_2$	$10^{-1} A_2$	$10^{-4} A_2$
<b>Gases</b>			
Tritium	$2 \times 10^{-2} A_2$	$2 \times 10^{-1} A_2$	$2 \times 10^{-2} A_2$
Special form	$10^{-3} A_1$	$10^{-2} A_1$	$10^{-3} A_1$
Other forms	$10^{-3} A_2$	$10^{-2} A_2$	$10^{-3} A_2$

**Additional limit:** a package containing radioactive material may be classified as an **excepted package** provided that the **radiation level at any point on its external surface does not exceed 5  $\mu\text{Sv/h}$**



**Mass activity (Bq/g)**



## Type A Packages

### ➤ Examples:



**gamma  
density meter**



**Radiopharmaceutic  
al products (Iodine,  
Thallium)**

### Mass activity (Bq/g)





## Type B Packages

### ➤ Examples:



**Research  
combustible  
packages**



+



**Industrial gamma  
graphic devices**

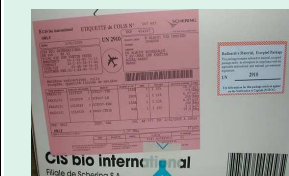
**Type B Packages shall be agreed by Nuclear Authority**

# CLASSIFICATION

Mass activity (Bq/g)

EXEMPTED MATERIAL

EXCEPTED PACKAGE



TYPE A



TYPE B



EXEMPTED MATERIAL

Exemption value

Exemption value

$10^{-n} A_1$   
or  $A_2$

$A_1$  or  $A_2$

Total activity (Bq)



## Industrial Type Packages

### ➤ Examples:



**Concentrated Natural  
Uranium Transportation**



**Uranyl Nitrate  
Transportation**

## Industrial Packages

### ➤ Contents:

#### ➤ **LSA** Material (Low Specific Activity):

- ✓ **3 groups: LSA-I, LSA-II, LSA-III**

- ✓ **Radioactive material which by its nature has a limited specific activity**

#### ➤ **SCO** (Surface Contaminated Object):

- ✓ **2 groups: SCO-I, SCO-II**

- ✓ **solid object which is not itself radioactive but which has radioactive material distributed on its surface**

## Industrial Packages

### ➤ **Examples and Definition:**

#### ➤ **LSA** Material (Low Specific Activity): Some examples

- ✓ **Uranium and Thorium ores**

- ✓ **Isotopes with an unlimited  $A_1$  or  $A_2$  value**

- ✓ **Material in which the activity is distributed throughout and the estimated average specific activity does not exceed  $10^{-5} A_2/\text{g}$  for solids and gases, and  $10^{-5} A_2/\text{g}$  for liquids**

#### ➤ **SCO** (Surface Contaminated Object): Some examples

- ✓ **Tools and Maintenance equipments/appartus**

- ✓ **Contaminated laundry**

➤ **Full definition** could be found in **Part 2, paragraph 7.2.3** (10.3.5 & 10.3.6)

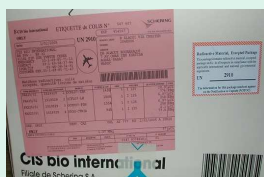
# CLASSIFICATION

Mass activity (Bq/g)

EXEMPTED MATERIAL

$\times A_2/g$

**EXCEPTED PACKAGE**



**TYPE A**



**TYPE B**



**INDUSTRIAL (IP-1, IP-2, IP-3)**



**EXEMPTED MATERIAL**

Exemption  
value

$10^{-n} A_1$   
or  $A_2$

$A_1$  or  $A_2$

Total activity  
(Bq)



### Mass activity (Bq/g)



## Shipper's Responsibilities

### ➤ Checking of the shipment :

→ Verification of the **adequacy** between **substance** and **packaging**

☞ can the substance be transported ?

☞ can the selected packaging contain this substance ?

→ Checking of the **contamination**

☞ it has to be maintain as low as possible and in each case, below the applicable mandatory limits

→ Checking of the **radiation activity**

☞ limited to 2mSv/h at contact, and 0,1 mSv/h at 1 meter

→ **Transport Index** calculation

☞ radiation quantification of a package/full shipment

☞  $TI = 100 \times \text{dose rate at 1 meter}$

## Shipper's Responsibilities

### ➤ Signalling the packages :

- The **risk** presented by a shipment **shall be clearly communicated** as to
  - ☞ **protect** the workers against the ionising radiations at all time
  - ☞ **inform** the rescue teams in case of an accident/incident



→ Signalling is realized by

☞ **marking** of the packages

☞ **labelling** of the packages



## Shipper's Responsibilities

### ➤ Labelling :

→ Different types of **labels**

☞ depending to the **radiation activity** of the package

☞ function to the **dose rate at contact** and to the **TI** (Transport Index)

☞ dedicated label for **fissile** material

→ Applicable for **packages** and **overpacks**



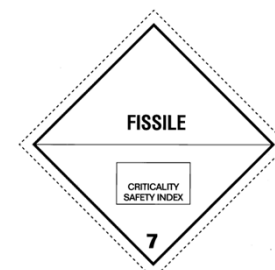
**RRW**



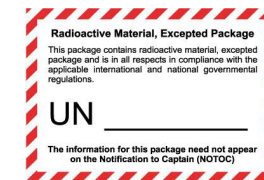
**RRY**



**RRY**



→ For **excepted packages** “RRE” →



## Shipper's Responsibilities

### ➤ Labelling :

- ☞ **TI** (Transport Index) is dedicated to a package, an overpack or a freight container
- ☞ this number is used to provide the information on the radiation level



**TI = 0**







**TI > 0  
à ≤ 1**



**TI > 1  
à 10**

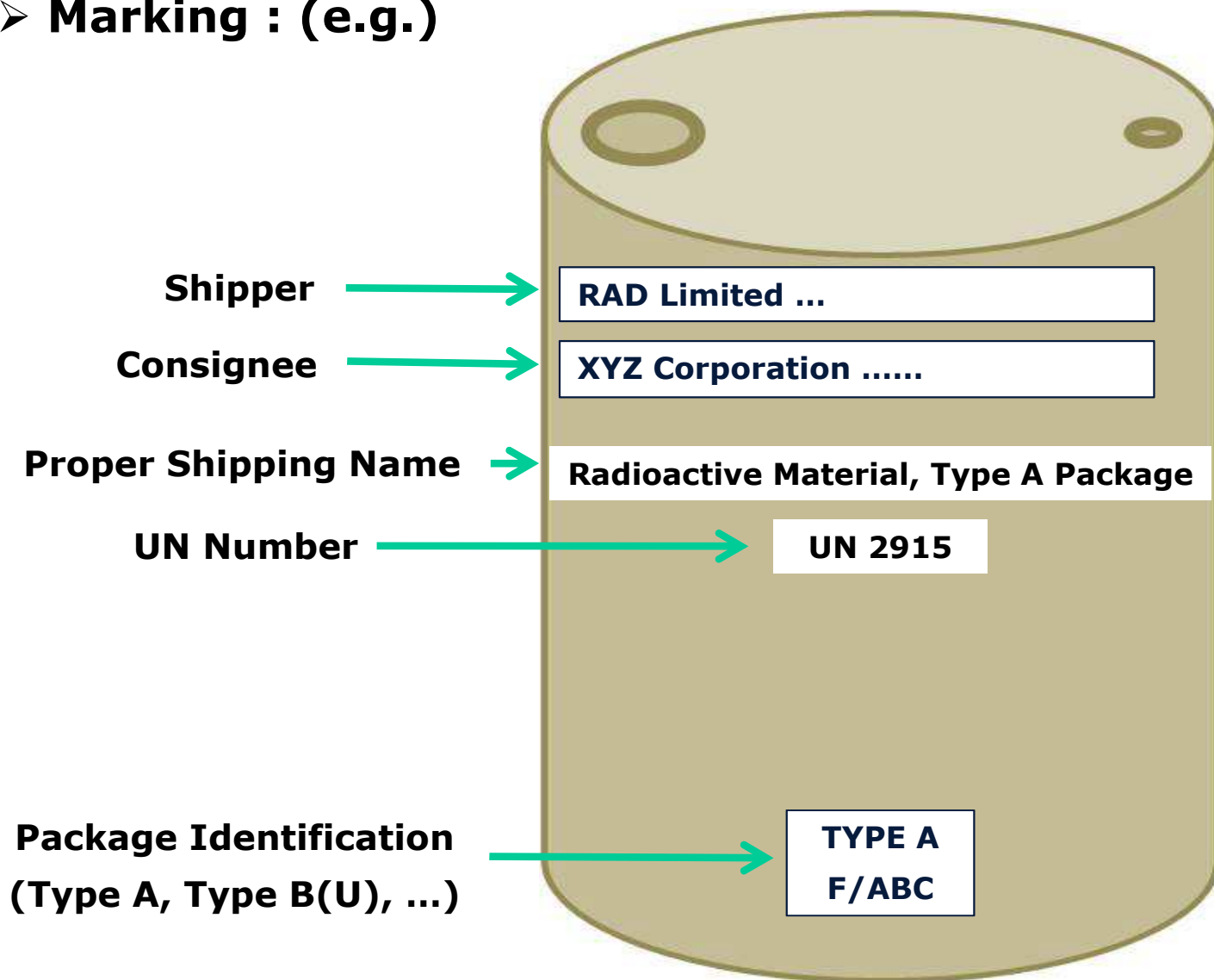
## Shipper's Responsibilities

### ➤ Labelling :

Transport Index	Maximum radiation level at any point on external surface	Category	Label
0	$\leq 0.005$ mSv/h	I-White	
$> 0 - \leq 1$	$> 0.005$ mSv/h - $\leq 0.5$ mSv/h	II-Yellow	
$> 1 - \leq 10$	$> 0.5$ mSv/h - $\leq 2$ mSv/h	III-Yellow	
$> 10$	$> 2$ mSv/h - $\leq 10$ mSv/h	III-Yellow, under exclusive use and special arrangement	

## Shipper's Responsibilities

### ➤ Marking : (e.g.)



**And also:**

- **Gross weight (if more than 50 kg)**
- **Serial number dedicated to the package in compliance with the agreed model**
- **Trefoil marking for Type B packages**



## Shipper's Responsibilities

### ➤ Documentation : (e.g.)

☞ **name** and **address** of the **shipper** and the **consignee**

☞ **UN number**, **proper shipping name**, **Class**

☞ **name** or **symbol** of each **radionuclide**, **description** of the **physical** and **chemical form** of the material

☞ **maximum activity** of the **radioactive contents**, in **becquerels (Bq)**

For **fissile** material, the **mass** of fissile material in **grams (g)**

☞ **category** of the package, **TI**, **CSI** where applicable

☞ **identification mark** for each **competent authority certificate of approval** for the shipment

☞ where applicable, the statement "exclusive use shipment", LSA and SCO activity, ...

SHIPPER'S DECLARATION FOR DANGEROUS GOODS					
<b>Shipper</b> ADVANCED CHEMICAL CO. 345 MAIN STREET REIGATE, SURREY, ENGLAND			<b>Air Waybill No.</b> 800 1234 5686 <b>Page</b> 1 of 1 <b>Pages</b> <b>Shipper's Reference Number</b> 1213 / A12 <small>(optional)</small>		
<b>Consignee</b> ABC Co.Ltd. 1000 HIGH STREET ATHENS, GREECE			<b>For optional use for Company logo name and address</b>		
<small>Two completed and signed copies of this Declaration must be handed to the operator.</small>			<b>WARNING</b> Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties.		
<b>TRANSPORT DETAILS</b>					
This shipment is within the limitations prescribed for: <small>(delete non-applicable)</small> <input checked="" type="checkbox"/> PASSENGER AND CARGO AIRCRAFT <input type="checkbox"/> <del>CARGO AIRCRAFT</del> <input type="checkbox"/> <del>RAIL</del> <input type="checkbox"/> <del>SEA</del>			<b>Airport of Departure:</b> LONDON <b>Airport of Destination:</b> ATHENS		
<b>Shipment type:</b> <small>(delete non-applicable)</small> <input checked="" type="checkbox"/> <del>NON-RADIOACTIVE</del> <input type="checkbox"/> RADIOACTIVE					
<b>NATURE AND QUANTITY OF DANGEROUS GOODS</b>					
Dangerous Goods Identification					
UN or ID No.	Proper Shipping Name	Class or Division (Subsidiary Risk)	Packing Group	Quantity and type of packing	Packing inst.
UN2916	RADIOACTIVE MATERIAL, TYPE B(U) PACKAGE	7		IRIDIUM - 192 SPECIAL FORM 1 TYPE B(U) PACKAGE X 1.925 TBq	115.0 DIM. 30x30 x40CM
					YELLOW FORM CERTIFICATE NO 9999 TYPE B(U) PACKAGE CERTIFICATE UK1735/ B(U)5 ATTACHED
<b>Additional Handling Information</b>					
I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. I declare that all of the applicable air transport requirements have been met.					<b>Name/Title of Signatory</b> A. BROWN, SHIPPING MANAGER <b>Place and Date</b> REIGATE, 1 JAN 2009 <b>Signature</b> <small>(see warning above)</small> A. Brown

# Thank you for your attention



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An Agency of the European Union 