



# Dangerous Goods (Amendment) Ordinance

## **Dangerous Goods (Application & Exemption) Regulation** **【Briefing】**

# Background

## **Dangerous Goods Ordinance (Cap 295)**

**Dangerous Goods (Application & Exemption) Regulation**

**Dangerous Goods (General) Regulation**

**Dangerous Goods (Shipping) Regulation**

**Dangerous Goods (Government Explosives Depots)  
Regulation**



# Background



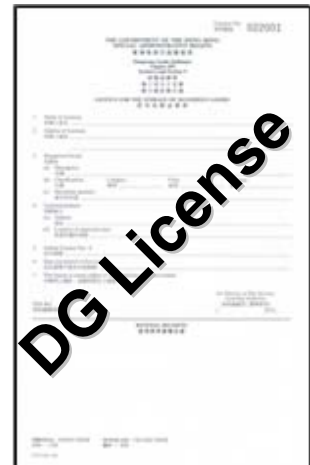
- Enacted in 1956
- Control dangerous goods at sea and on land
- **10** Categories and about **400** types of dangerous goods
- **1** Category “Combustible Goods” (Class 9A)
- The classification system does not in line with international

# Background

## Dangerous Goods Ordinance (Cap 295)

### Section 6(1)

Except under and in accordance with a licence granted under this Ordinance, no person shall manufacture, store, convey or use any dangerous goods.



# Background



## **Cat 1 DG**

- store, use, manufacture and conveyance



## **Cat 2 to 10 and Cat 9A**

- store, use, manufacture and conveyance



## **Cat 1 to Cat 10 DG at sea**

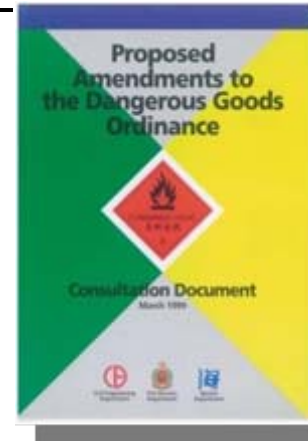
- conveyance

# Background

Amendment

## Amendments to Dangerous Goods Ordinance

- **1995** – Preparation
- **1999** – Issued Consultation Document
- **1999** – Commissioned Consultancy Study



## Feedbacks

- **2000** – Submission to “ExCo” and “LegCo”

# Background



## The amendment Ordinance passed in 2002

### Main issues:

- **Subsidiary legislation** — Repeal and rewrite
- **Classification** — Adopt “IMDG” classification
- **Testing Criteria** — Adopt “IMDG” testing methods
- **Dangerous Goods** — Expanded to cover over 1800 types
- **Exempted quantity** — Review and revise





## Main issues:

- **Import and Export dangerous goods** — Compliance with IMDG Code's packing, marking and labeling requirement deemed to comply with this Ordinance
- **Land Conveyance** — Review & revise
- **Code of Practice** — FSD and MD
- **Packing and Labeling** — Review & revise
- **Penalty** — Review & revise

[www.legco.gov.hk/yr00-01  
/english/bc/bc02/general/bc02.htm](http://www.legco.gov.hk/yr00-01/english/bc/bc02/general/bc02.htm)



# Background

## New and Existing Regulations

☒ DG (Application & Exemption) Regulation

Completed

☒ DG (Shipping) Regulation

Completed

☐ DG (General) Regulation

Under review

☐ DG (Packing, Marking & Labeling) Regulation

Under review

☒ DG (Government Explosives Depots) Regulation

Remain unchanged

# Background



## Implementation of International Code

### UN Model Regulations

Issued by United Nations to provide guideline for DG transportation

### International Maritime Dangerous Goods Code (IMDG)

Issued by International Maritime Organization to regulate DG transport at sea

### The European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)

Issued by UNECE to regulate DG transport in Europe on land

# Background

## Subsidiary Legislation

➤ **Consultation in 2004 and 2005 :**

1. General Public
2. Relevant Trade & Industry
3. Government Departments
4. District Councils

# Dangerous Goods (Application and Exemption) Regulation

【Amendment】



# **Dangerous Goods (Application & Exemption) Regulation**

## **Structure:**

- **Classification and Definition**
- **Exempted Quantity**
- **Other Exemption**



# Dangerous Goods (Application & Exemption) Regulation



## 1. Classification and Definition

- ☐ **Schedule 1** - Class 1 Explosives
- ☐ **Schedule 2** - Class 2, 3, 3A, 4, 5, 6.1, 8 and 9
- ☐ **Schedule 3** - Class 9A Combustible Goods
- ☐ **Schedule 4** - Prohibited Goods





# Schedule 1,2 and 3 Dangerous Goods

Class	分類名稱	Classification
Class 1	爆炸品	Explosives
Class 2	氣體	Gases
Class 3	易燃液體	Flammable liquids
Class 4	易燃固體、可自燃的物質、 與水接觸後散發出易燃氣體的 物質	Flammable solids; Substances liable to spontaneous combustion; Substance which in contact with water, emit flammable gases
Class 5	氧化物質、有機過氧化物	Oxidizing substances and Organic peroxides
Class 6.1	毒害物質	Toxic substances
Class 6.2	感染性物質【第138章】	Infectious substance → ( Cap 138 )
Class 7	放射性物質【第303章】	Radioactive material → ( Cap 303 )
Class 8	腐蝕性物質	Corrosive substances
Class 9	雜類危險物質和物品	Miscellaneous dangerous substances and articles
Class 3A	易燃液體 ( 引火點高於60度 )	Diesel oil, fuel oil and furnace oil, having flashpoint of more than 60°C
Class 9A	可燃燒物品	Combustible goods

# Schedule 4 - " Prohibited Goods"

No person shall manufacture or cause to be manufactured any  
"Prohibited Goods"

違禁品名稱	Prohibited Goods Name
氯酸銨及其水溶液，以及氯酸鹽與銨鹽的混合物	Ammonium Chlorate and its aqueous solutions and mixtures of a chlorate with an ammonium salt
疊氮化鈣，如屬水溶液，且疊氮化鈣所佔重量不超過百分之二十，則屬例外	Calcium Azide, except in aqueous solution not exceeding 20% of Calcium Azide by mass
硝酸肼	Hydrazine Nitrate
高氯酸肼	Hydrazine Perchlorate
氫氰酸，按重量濃度超過百分之二十	Hydrocyanic Acid with more than 20% acid, by mass
高氯酸溶液，按重量濃度超過百分之七十二	Perchloric Acid with more than 72% acid, by mass
氯乙烯單體	Vinyl Chloride Monomer



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## Exempted Quantity

2. Approved exempted quantity of DG to **use, store, manufacture and conveyance**

- ❑ Class 2
- ❑ Class 3 and 3A
- ❑ Class 4, 5, 6.1, 8 and 9
- ❑ Dangerous Goods in Consumer Packs
- ❑ Other Dangerous Goods Exemption



## Review on Exempted Quantity

- Formulated by FSD and Government Chemist
- 2003 – a unified exemption criteria
- 2004 – Endorsed by Dangerous Goods Standing Committee (DGSC)



# Exempted Quantity

3 categories according to the nature of USE of the premises

Category	Premises Type	Exemption Type
Industrial Premises	<ul style="list-style-type: none"><li>Industrial building</li><li>Construction Site</li></ul>	Industrial Exempted Quantity
General Premises	<ul style="list-style-type: none"><li>Non-industrial premises</li></ul>	General Exempted Quantity
Special Premises	<ul style="list-style-type: none"><li>Laboratory</li><li>Medical establishment</li></ul>	Special or General Exempted Quantity

# Exempted Quantity

## Conditions

- Person (Legal Entity) per building approach
- Only apply to DG in Packaged Form
- Does not exceed the Exempted Quantity of each DG as stipulated in the Schedule 2
- Total quantity of each “Class” does not exceed the “Aggregate exempted Quantity” of each “Class”



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# Schedule 2 Dangerous Goods List

## Example

UN No.	Name	Class	Subsidiary Risk	General Exempted Quantity	General Exempted Quantity	General Exempted Quantity	Max. Package Size
1170	ETHANOL or ETHYL ALCOHOL	3	None	25	150	None	1 L
1219	ISOPROPYL ALCOHOL	3	None	25	150	None	1 L
1263	PAINT	3	None	250	250	None	5 L
1266	PERFUMERY PRODUCTS	3	None	25	150	None	1 L
1789	HYDROCHLORIC ACID	8	None	25	50	None	1 L
1791	HYPOCHLORITE SOLUTION	8	None	250	250	None	5 L
1823	SODIUM HYDROXIDE	8	None	50	150	None	1 kg
1950	AEROSOLS	2.2	None	150	300	None	1 L

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# Schedule 2 Dangerous Goods List



## Aggregate Storage Quantity

Class	General Premises Special Premises	Industrial Premises
<b>Class 2</b>	<b>300 L</b> not more than 5 receptacles (exclude Pre-packed DG)	<b>450 L</b> not more than 10 receptacles (exclude Pre-packed DG)
<b>Class 3</b>	<b>100 L</b>	<b>150 L</b>
<b>Class 3A</b>	<b>500 L</b>	<b>2,500 L</b>
<b>Class 4, 5, 6.1, 8 及 9</b>	<b>100 L/kg</b>	<b>1,000 L/kg</b>
<b>Specified Class 5, 6.1 及 8</b>	<b>250 L/kg</b>	<b>250 L/kg</b>

## 2

# Dangerous Goods in Consumer Packs

## Definition



- Commonly used in daily life
- Stored in a container with a capacity not exceeding  
“Maximum Package Size”
- Lower risk and sold as individually package  
For example: Disinfection alcohol, Aerosols, Perfumes,  
Paint .....



2

# Schedule 2 Dangerous Goods List

## Example of Personal and household use DG

UN No.	Name	Class	Subsidiary Risk	General Exempted Quantity	General Exempted Quantity	General Exempted Quantity	Max. Package Size
1170	ETHANOL or ETHYL ALCOHOL	3	None	25	150	None	1 L
1219	ISOPROPYL ALCOHOL	3	None	25	150	None	1 L
1263	PAINT	3	None	250	250	None	5 L
1266	PERFUMERY PRODUCTS	3	None	25	150	None	1 L
1789	HYDROCHLORIC ACID	8	None	25	50	None	1 L
1791	HYPOCHLORITE SOLUTION	8	None	250	250	None	5 L
1823	SODIUM HYDROXIDE	8	None	50	150	None	1 kg
1950	AEROSOLS	2.2	None	150	300	None	1 L



## 2

# Dangerous Goods in Consumer Packs



## General (exclude residential premises)

- Person (Legal Entity) per building approach
- Capacity less than "Maximum Package Size"
- Exempted quantity is 1,000 L/kg
- Conveyance is exempted
- Packing, marking and labeling are exempted



## 2

# Dangerous Goods in Consumer Packs

## Warehouse in Industrial Building

- Storage per warehouse approach
- Capacity less than "Maximum Package Size"
- Exempted quantity is 5,000 L/kg
- Conveyance is exempted
- Packing, marking and labeling are exempted



## 2

# Dangerous Goods in Consumer Packs

### UN1950 Aerosol (Class 2)

Capacity not more than 1 L (Non-toxic)

Capacity not more than 120 ml (Toxic)



General	1,000 L/kg
Warehouse	5,000 L/kg

※ Aerosol less than 50 ml and contains non toxic substance is not subject to this Ordinance.

※ Aerosol using LPG as propellant is regulated by Gas Safety Ordinance.

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## Dangerous Goods in Consumer Packs

### UN 1791 Hypochlorite Solution (Class 8)

Maximum Package Size 5 L ( Corrosive )



### UN 1266 Perfumery Products (Class 3)

Maximum Package Size 1 L ( Flammable Liquid )



### UN 1334 Naphthalene (Class 4.1)

Maximum Package Size 1 L ( Flammable Solid )



General	1,000 L/kg
Warehouse	5,000 L/kg

# 2

## Dangerous Goods in Consumer Packs

Dangerous Goods in Consumer Packs	Class	Max. Package Size
UN1133 ADHESIVES	Class 3	1 L
UN1170 ETHANOL	Class 3	1 L
UN1263 PAINT	Class 3	5 L
UN1266 PERFUMERY PRODUCTS	Class 3	1 L
UN1748 CALCIUM HYPOCHLORITE	Class 5.1	5 kg
UN1791 HYPOCHLORITE SOLUTION	Class 8	5 L
UN1950 AEROSOLS	Class 2	1 L
UN2037 GAS CARTRIDGES	Class 2	1 L





## Other Exemption



### 1. Alcoholic Beverages with $\leq 35\%$ alcohol by volume

Premises	Individual capacity	Max. aggregated quantity
Any place	less than 450L	2,500L
Without sprinkler system	$\leq 5$ L	6,250L
With sprinkler system	$\leq 5$ L	12,500L

### 2. Paint (include General, Industrial and Special Premises)

- Storage, use and conveyance less than 250L is exempted



### 3. DG in machinery is exempted from control

- Required solely for the operation of the machinery
- Contain in a receptacle which is permanently installed in and forming part of a machinery

## Other Exemption

### 4. Fuel in fuel tank of vehicle, vessel and aircraft

- Store and use is exempted



### 5. Class 2.2 goods used as Refrigerant

- Refrigerant in air-con system of motor vehicle, stand-alone electrical appliance, cold store system or central air-con system is exempted



### 6. Class 2.2 goods used as Fire Extinguishing Media

- Class 2.2 goods connected to FSI is exempted



# Other Exemption



## 7. Urgent Repair Works by Public Utility Company

- Use of Class 2.2 goods without subsidiary risk
- Conduct urgent repair works of public utility
- Supervised by an authorized person



## 8. Fuel Tank in Building

- Use of Class 3A for emergency generator of FSI or emergency power supply
- Storage not more than 2,500 L is exempted





## Other Exemption

### 9. Pyrotechnic special effect material

- Under the Entertainment Special Effects Ordinance, Cap.560
- Exempted from S.6 and S.10 of DGO



### 10. Power of Director to exempt

- The Director of Fire Services may in relation to any Schedule 2 DG on land, grant an exemption from all or any of the provisions of the Ordinance in respect of a specific case or a specific person



# Existing and Revised DG List

Existing Control			New Control			
Name	Class	EQ	Name	Class	GEQ	IEQ
Acetylene	2	2 Cylinders	UN1001 ACETYLENE, DISSOLVED	2.1	150 L 2 receptacles	300 L 4 receptacles
Carbon Dioxide	2	2 Cylinders	UN1013 CARBON DIOXIDE	2.2	150 L 2 receptacles	300 L 4 receptacles
Chlorine	2	None	UN1017 CHLORINE	2.3	None	None
Sulphuric Acid	3	10 L	UN2796 SULPHURIC ACID	8	25 L	50 L
Sodium Hypochlorite Solutions	4	250 L	UN1791 HYPOCHLORITE SOLUTION	8	250 L	250 L
Petrol	5	20 L	UN1203 PETROL	3	25 L	25 L
Paint Lacquers	5	250 L	UN1263 PAINT	3	250 L	250 L
Cyanides, Metallic	4	5 kg	UN1588 CYANIDES, INORGANIC, SOLID, N.O.S.	6.1	10 kg	20 kg

# Progress

- Submit to ExCo and LegCo
- Drafting in progress
  - **Dangerous Goods (General) Regulation**
  - **Dangerous Goods (Packing, Marking and Labeling) Regulation**
- The new regulation will be enacted once all amendment completed



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**Thank you**

