

Chapter 8

Transportation of Dangerous Materials



- ❑ Most of the lab workers usually receive and ship different types of dangerous materials such as chemicals.**
- ❑ It is very important to know the regulations you should follow in to prevent accidents and to provide information in the event of an accident occurrence.**
- ❑ Dangerous materials (goods) are classified according to the United Nations recommendations on the transport of dangerous materials.**
- ❑ Dangerous materials can be articles or substances, which are capable of posing a risk to health, safety, property or environment.**



□ The transport of dangerous materials is not hazardous, provided suitable precautions are taken to provide swift transport of these commodities, all in compliance with IATA DG Regulations.

□ UN number:

Any dangerous material appearing in the list of dangerous materials is assigned a unique UN number and is the same number used around the world.



Responsibilities

Shipper's responsibilities

The shipper must assure that the following items must be completed correctly:

- classification of the dangerous material
- packaging
- marking and labeling
- shipping document



Responsibilities

Carrier's responsibilities

The carrier must assure the following:

- items are identified, marked and labeled correctly
- correct packaging
- items are properly stowed, secured and placarded
- transport dangerous materials in a safe manner
- report dangerous occurrence
- retain the shipping document
- produce a copy of the shipping document upon request.



Responsibilities

Receiver's responsibilities

Before accepting shipped items, the receiver must check to ensure:

- packages have not been damaged
- documentation is available and correct.
- Report any damage of the shipped items
- Removal of dangerous materials safety marks after unpacking the items.



Classifying dangerous materials

The classification system was developed through the “United Nations” and it contains nine (9) classes of dangerous materials

❑ **Class 1: Explosives**



❑ **Class 2 : gases**



❑ **Class 3 : Flammable liquids**



❑ **Class 4 : Flammable Solids; Substances Liable to Spontaneous Combustion; Substances That on Contact with Water Emit Flammable Gases (Water-reactive Substances)**



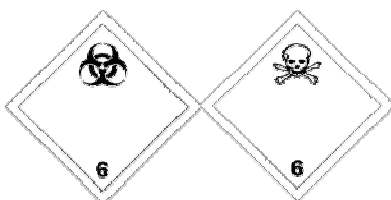
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Classifying dangerous materials

- ❑ **Class 5** : Oxidizing substances and organic peroxides



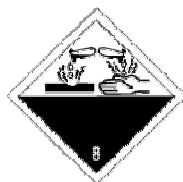
- ❑ **Class 6**: Toxic and Infectious Substances



- ❑ **Class 7**: Radioactive materials



- ❑ **Class 8**: Corrosives

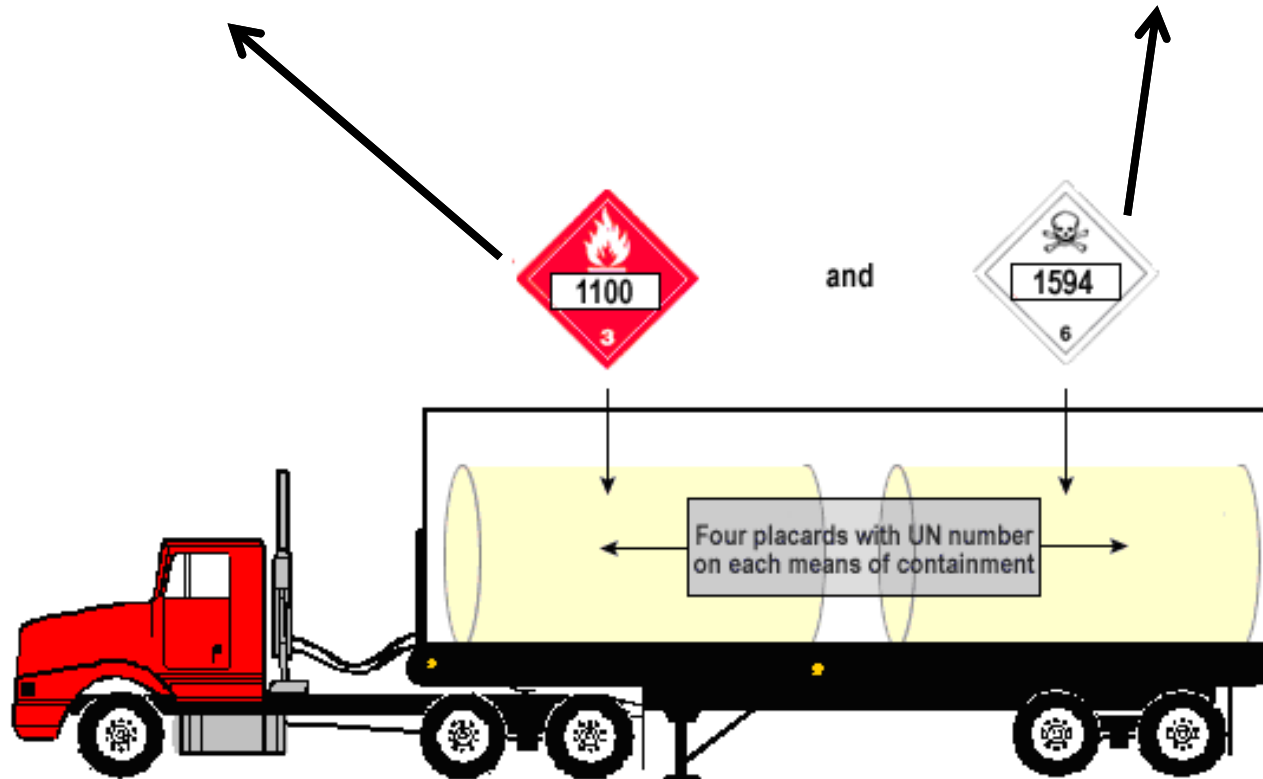


- ❑ **Class 9**: Miscellaneous products, substances or organisms.



UN 1100 is ALLYL CHLORIDE

UN 1594 is DIETHYL SULPHATE



<http://www.tc.gc.ca/eng/tdq/clear-tofc-211.htm>

