THE SCHEDULE

Regulation 2(1)

PART I

PROPERTIES RELEVANT TO, AND PACKING GROUPS OF, SUBSTANCES WHICH HAVE BEEN CLASSIFIED AS DANGEROUS FOR CONVEYANCE IN ACCORDANCE WITH REGULATION 6(4) OF THE CLASSIFICATION, PACKAGING AND LABELLING OF DANGEROUS SUBSTANCES REGULATIONS 1984

Column 1	Column 2	
Relevant properties	Packing group	

- 1. The properties relevant to a substance III which has been classified as a *flammable liquid* in accordance with regulation 6(4) of the 1984 Regulations are as follows:
 - (a) (in the case of a liquid containing not more than 20% of nitrocellulose and having a flash point not exceeding 21°C)—
 - (i) less than 3% of it shall separate out into a clear solvent layer following a suitable solvent separation test,
 - (ii) the flash point of it shall be specified in column 1 of the table set out in Part III of this Schedule.and
 - (iii) the kinematic viscosity of it shall be within the range specified in column 2 of the table set out in Part III of this Schedule which is opposite to the flash point of that liquid referred to in head (ii) of this sub-paragraph; or
 - (b) (in the case of any other liquid) I its flash point shall be not greater than 55°C and it shall have—
 - (i) an initial boiling point of not greater than 35°C,
 - (ii) an initial boiling point above 35°C and a II flash point of less than 21°C, or
- (iii) an initial boiling point above 35°C and a III flash point of 21°C or above.
- **2.** The properties relevant to a substance I which has been classified as a *flammable solid*

Column 1	Column 2
Relevant properties	Packing group

in accordance with regulation 6(4) of the 1984 Regulations are as follows:

it shall be readily combustible under conditions encountered in carriage in packages, etc., or it may cause or contribute to fire through friction and it shall—

- (a) be water-wetted and (when in a dry state) be required to be classified (as defined by regulation 2(1) of the 1983 Regulations) in pursuance of regulation 3(2)(a) of those Regulations;
- (b) (b) be a self-reactive substance II which, when ignited, burns very vigorously or intensely and is difficult to extinguish; or
- (c) (c) when ignited, burn vigorously III or intensely.
- **3.** The properties relevant to a substance I which has been classified as a spontaneously combustible substance in accordance with regulation 6(4) of the 1984 Regulations are as follows:

it shall be liable either to spontaneous heating under conditions encountered in carriage or to heating in contact with air (being in either case then liable to catch fire) and it shall be—

- (a) a pyrophoric substance which ignites instantly on contact with air;
- (b) (b) liable to ignite on contact II with air within a short space of time, particularly under conditions of spillage; or
- (c) (c) other substance which is liable III to ignite on contact with air.
- **4** The properties relevant to a substance I which has been classified as a substance which in contact with water emits flammable gas in accordance with regulation 6(4) of the 1984 Regulations are as follows:

in contact with water it shall be liable to become spontaneously combustible or to give off a flammable gas and it shall—

(a) either react vigorously with water at ambient temperatures and

Column 1 Relevant properties

Column 2 Packing group

demonstrate generally a tendency for the gas produced to ignite spontaneously or shall react readily with water at ambient temperatures so that the rate of evolution of flammable gas is equal to or greater than 10 litres per kilogram of substance over any period of one minute;

- (b) (b) react readily with water II at ambient temperatures so that the maximum rate of evolution of flammable gas is equal to or greater than 20 litres per kilogram of substance per hour; or
- (c) (c) react slowly with water III at ambient temperatures so that the maximum rate of evolution of flammable gas is greater than 1 litre per kilogram of substance per hour.
- **5.** The properties relevant to a substance I which has been classified as anoxidizing substance in accordance with regulation 6(4) of the 1984 Regulations are as follows:

it may (although not itself necessarily combustible), by yielding oxygen or by a similar process, cause or contribute to the combustion of other material and it shall exhibit oxidizing properties to a degree—

- (a) greater than potassium bromate;
- (b) (b) equal to or greater than II ammonium perchlorate; or
- (c) (c) equal to or greater than III ammonium persulphate.
- **6.** The properties relevant to a substance which has been classified as atoxic substance in accordance with regulation 6(4) of the 1984 Regulations are as follows:

it shall cause, or it may cause, a serious hazard to human health during carriage, and it shall have been allocated to packing group I or II in accordance with the criteria set out in Part II of this Schedule.

7. The properties relevant to a substance — which has been classified as a*harmful substance*

Column 1 Column 2
Relevant properties Packing group

in accordance with regulation 6(4) of the 1984 Regulations are as follows:

it shall cause, or it may cause, ill-health to people, but it shall be less likely to represent a serious hazard to health during carriage than does a toxic substance, and it shall have been allocated to packing group III in accordance with the criteria set out in Part II of this Schedule.

8. The properties relevant to a substance I which has been classified as a*corrosive* substance in accordance with regulation 6(4) of the 1984 Regulations are as follows:

it shall by chemical action-

- (a) cause severe damage when in contact with living tissue; or
- (b) materially damage other freight or equipment if leakage occurs;

and shall-

- (c) cause visible necrosis of the skin tissue at the site of contact when tested on the intact skin of an animal for a period of—
 - (i) up to 3 minutes,
- (ii) more than 3 and up to 60 minutes, or II
- (iii) more than 60 minutes and up to 4 hours, III or
 - (d) (d) cause corrosion in steel or III aluminium surfaces at a rate exceeding 6.25 mm a year at a test temperature of 55°C.

PART II

CRITERIA FOR ALLOCATION OF SUBSTANCES WHICH HAVE BEEN CLASSIFIED AS TOXIC OR HARMFUL SUBSTANCES IN ACCORDANCE WITH REGULATION 6(4) OF THE CLASSIFICATION, PACKAGING AND LABELLING OF DANGEROUS SUBSTANCES REGULATIONS 1984 INTO PACKING GROUPS

1. Account should be taken of the physico-chemical properties of a substance, as well as reports of accidental poisonings in people and acute toxicity tests in animals. In the absence of adequate human experience, allocation should be based on data obtained from animal experiments. Acute toxicity testing in animals should be conducted using internationally-agreed protocols, such as the

current edition of the Organisation for Economic Co-operation and Development's Guidelines for Testing of Chemicals, and in accordance with appropriate animal welfare provisions.

- **2.** When a substance exhibits a different order of toxicity by two or more of the following routes of administration, namely oral, dermal or inhalation, the highest degree of danger indicated by the tests shall be considered when allocating the substance.
- **3.** Subject to paragraphs 1 and 2 above, toxic and harmful substances shall be allocated into packing groups I, II or III in accordance with the criteria given in the table below:

Classification	Packing Group	Oral toxicity LD ₅₀ (mg/ kg)	Dermal toxicity LD ₅₀ (mg/kg)	Inhalation toxicity of dust or mists LC ₅₀ (mg/L)	Inhalation toxicity of vapours where V is the saturated vapour concentration produced by the substance at 20°C expressed by reference to LC ₅₀ (ml/m³)
Toxic Substance	I	≤5	≤40	≤0.5	$\begin{array}{c} V \!\! \geq \!\! 10.LC_{50} \\ \text{and} \\ LC_{50} \!\! \leq \!\! 1000 \end{array}$
	II	>5 to ≤50	>40 to ≤200	>0.5 to ≤2	$V \ge LC_{50}$ and $LC_{50} \le 3000$ but not placed in packing group I
Harmful substance	III	solids: >50 to ≤200 liquids: >50 to ≤500	>200 to ≤1000	>2 to ≤10	$V \ge 0.2LC_{50}$ and LC_{50} ≤ 5000 but not placed in either packing group I or II

The above criteria are based on LC_{50} data relating to one hour exposure and where such information is available it should be used. However, where only LC_{50} data relating to 4 hour exposures is available then:

 LC_{50} (4 hr) × 4 shall be considered equivalent to LC_{50} (1 hr) for dusts or mists, and LC_{50} (4 hr) × 2 shall be considered equivalent to LC_{50} (1 hr) for vapours.

PART III

TABLE OF FLASH POINTS AND KINEMATIC VISCOSITY RANGES OF SUBSTANCES WHICH HAVE BEEN CLASSIFIED AS FLAMMABLE LIQUIDS IN ACCORDANCE WITH REGULATION 6(4) OF THE CLASSIFICATION. PACKAGING AND LABELLING OF DANGEROUS SUBSTANCES REGULATIONS 1984, CONTAIN

NOT MORE THAN 20% OF NITROCELLULOSE AND DO NOT IN ANY CASE HAVE A FLASH POINT EXCEEDING 21°C

Column 1	Column 2	
Flash point	Kinematic viscosity γ (extrapolated) (at near-	
	zero shear rate) mm ² /s at 23°C	
Above 17°C	20 <γ≤ 80	
Above 10°C	80 <γ≤135	
Above 5°C	135 <γ≤220	
Above −1°C	220 <γ≤300	
Above -5°C	300 <γ≤700	
−5°C and below	700 <γ	