#### SCHEDULE 1

Regulation 4(4) and (5)

# PART I

#### MINIMUM REQUIREMENTS CONCERNING SAFETY SIGNS AND SIGNALS AT WORK

#### **1** Preliminary remarks

(1.1) Where safety signs are required by these Regulations, they must conform to the specific requirements in Parts II to IX of this Schedule.

(1.2) This Part introduces those requirements, describes the different uses of safety signs, and gives general rules on the interchanging and combining of signs.

(1.3) Safety signs must be used only to convey the message or information specified in this Schedule.

### 2 Types of signs

- (2.1) Permanent signs
- (2.1.1) Permanent signboards must be used for signs relating to prohibitions, warnings and mandatory requirements and the location and identification of emergency escape routes and first-aid facilities.

Signboards and/or a safety colour must be used to mark permanently the location and identification of fire-fighting equipment.

- (2.1.2) Signboards on containers and pipes must be placed as laid down in Part III.
- (2.1.3) Places where there is a risk of colliding with obstacles or of falling must be permanently marked with a safety colour and/or with signboards.
- (2.1.4) Traffic routes must be permanently marked with a safety colour.
- (2.2) Occasional signs
- (2.2.1) Illuminated signs, acoustic signals and/or verbal communication must be used where the occasion requires, taking into account the possibilities for interchanging and combining signs set out in paragraph 3, to signal danger, to call persons to take a specific course of action and for the emergency evacuation of persons.
- (2.2.2) Hand signals and/or verbal communication must be used where the occasion requires, to guide persons carrying out hazardous or dangerous manoeuvres.

#### 3 Interchanging and combining signs

- (3.1) Any one of the following may be used if equally effective:
- a safety colour or a signboard to mark places where there is an obstacle or a drop,
- illuminated signs, acoustic signals or verbal communication,
- hand signals or verbal communication.
- (3.2) Some types of signs may be used together:
- illuminated signs and acoustic signals,
- illuminated signs and verbal communication,
- hand signals and verbal communication.
- 4. The instructions in the table below apply to all signs incorporating a safety colour.

Colour	Meaning or purpose	Instructions and information
Red—	Prohibition sign	Dangerous behaviour
	Danger alarm	Stop, shutdown, emergency cut out devices, Evacuate
	Fire-fighting equipment	
		Identification and location
Yellow or Amber—	Warning sign	Be careful, take precautions
		Examine
Blue—	Mandatory sign	Specific behaviour or action
		Wear personal protective equipment
Green—	Emergency escape, first aid sign	Doors, exits, routes, equipment, facilities
	No danger	Return to normal

5. The effectiveness of a sign must not be adversely affected by:

(5.1) the presence of another emission source of the same type which interferes with visibility or audibility; therefore, in particular,

- (5.1.1) the placing of too many signs too close together should be avoided;
- (5.1.2) two illuminated signs which are likely to be confused are not to be used at the same time;
- (5.1.3) an illuminated sign is not to be used in the proximity of another similar illuminated source;
- (5.1.4) two acoustic signals are not to be used at the same time;
- (5.1.5) an acoustic signal is not to be used if there is too much ambient noise;

(5.2) poor design, insufficient number, incorrect positioning, poor state of repair or incorrect functioning of the signs or signalling devices.

**6.** Depending on requirements, signs and signalling devices must be cleaned, maintained, checked, repaired, and if necessary replaced on a regular basis to ensure that they retain their intrinsic and/or functional qualities.

7. The number and positioning of signs or signalling devices to be installed will depend on the extent of the hazards or dangers or on the zone to be covered.

**8.** Signs requiring some form of power must be provided with a guaranteed emergency supply in the event of a power cut, unless the hazard has thereby been eliminated.

**9.** The triggering of an illuminated sign and/or acoustic signal indicates when the required action should start; the sign or signal must be activated for as long as the action requires. Illuminated signs and acoustic signals must be reactivated immediately after use.

**10.** Illuminated signs and acoustic signals must be checked to ensure that they function correctly and that they are effective before they are put into service and subsequently at sufficiently frequent intervals.

11. If the hearing or the sight of the workers concerned is impaired, including impairment by the wearing of personal protective equipment, measures must be taken to supplement or replace the signs concerned.

**12.** Areas, rooms or enclosures used for the storage of significant quantities of dangerous substances or preparations must be indicated by a suitable warning sign taken from paragraph 3.2 of Part II, or marked as provided in paragraph 1 of Part III, unless the labelling of the individual packages of containers is adequate for this purpose.

## PART II

### MINIMUM GENERAL REQUIREMENTS CONCERNING SIGNBOARDS

#### **1** Intrinsic features

(1.1) The shape and colours of signboards are set out in paragraph 3, in accordance with their specific object (signboards indicating a prohibition, a warning, a mandatory action, an escape route, an emergency or fire-fighting equipment).

(1.2) Pictograms must be as simple as possible and should contain only essential details.

(1.3) The pictograms used may be slightly different from or more detailed than those shown in paragraph 3, provided that they convey the same meaning and that no difference or adaptation obscures the meaning.

(1.4) Signboards are to be made of shock and weather-resistant material suitable for the surrounding environment.

(1.5) The dimensions and colorimetric and photometric features of signboards must be such that they can be easily seen and understood.

### 2 Conditions of use

(2.1) Signboards are in principle to be installed at a suitable height and in a position appropriate to the line of sight, taking account of any obstacles, either at the access point to an area in the case of a general hazard, or in the immediate vicinity of a specific hazard or object and in a well-lit and easily accessible and visible location.

Without prejudice to the provisions of Directive 89/654/EEC, phosphorescent colours, reflective materials or artificial lighting should be used where the level of natural light is poor.

(2.2) The signboard must be removed when the situation to which it refers ceases to exist.

#### 3 Signboards to be used

(3.1) *Prohibitory signs* 

Intrinsic features:

- round shape
- black pictogram on white background, red edging and diagonal line (the red part to take up at least 35% of the area of the sign).

Signs to be used:

No smoking No smoking



No smoking

Smoking and naked flames forbidden Smoking and naked flames forbidden



Smoking and naked flames forbidden

No access for pedestrians No access for pedestrians



No access for pedestrians

Do not extinguish with water Do not extinguish with water



Do not extinguish with water





Not drinkable

No access for unauthorised persons No access for unauthorised persons



No access for unauthorised persons

No access for industrial vehicles No access for industrial vehicles



No access for industrial vehicles

Do not touch Do not touch



Do not touch

(3.2) Warning signs

Intrinsic features:

- triangular shape
- black pictogram on a yellow background with black edging (the yellow part to take up at least 50% of the area of the sign).

Flammable material or high temperature(1) Flammable material or high temperature



Flammable material or high temperature(a)

Explosive material Explosive material



Explosive material

Toxic material Toxic material

<sup>(1)</sup> In the absence of a specific sign for high temperature.



Toxic material

Corrosive material Corrosive material



Corrosive material

Radioactive material Radioactive material



Radioactive material

Overhead load Overhead load



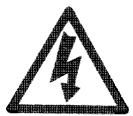
Overhead load

Industrial vehicles Industrial vehicles



Industrial vehicles

Danger: electricity Danger: electricity



Danger: electricity

General danger General danger



General danger

Laser beam Laser beam



Laser beam

Oxidant material Oxidant material



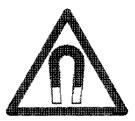
Oxidant material

Non-ionizing radiation Non-ionizing radiation



Non-ionizing radiation

Strong magnetic field Strong magnetic field



Strong magnetic field

Obstacles Obstacles



Obstacles

Drop Drop



Drop

Biological risk(2) Biological risk



Biological risk(a)

Low temperature Low temperature



Low temperature

Harmful or irritant material(**3**) Harmful or irritant material



Harmful or irritant material(b)

(3.3) Mandatory signs

<sup>(2)</sup> Pictogram laid down in Council Directive 90/679/EEC of 26 November 1990 on the protection of workers from the risks related to exposure to biological agents at work (Seventh individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC) OJNo. L 374, 31.12.1990, p. 1.

<sup>(3)</sup> The background to this sign may exceptionally be amber if justified in order to differentiate it from a similar road safety sign.

Intrinsic features:

- round shape
- white pictogram on a blue background (the blue part to take up at least 50% of the area of the sign).

Eye protection must be worn Eye protection must be worn



Eye protection must be worn

Safety helmet must be worn Safety helmet must be worn



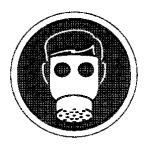
Safety helmet must be worm

Ear protection must be worn Ear protection must be worn



Ear protection must be worn

Respiratory equipment must be worn Respiratory equipment must be worn



Respiratory equipment must be worn

Safety boots must be worn Safety boots must be worn



Safety boots must be worn

Safety gloves must be worn Safety gloves must be worn



Safety gloves must be worn

Safety overalls must be worn Safety overalls must be worn



Safety overalls must be worn

Face protection must be worn Face protection must be worn



Face protection must be worn

Safety harness must be worn Safety harness must be worn



Safety harness must be worn

Pedestrians must use this route Pedestrians must use this route



Pedestrians must use this route

General mandatory sign (to be accompanied where necessary by another sign) General mandatory sign (to be accompanied where necessary by another sign)



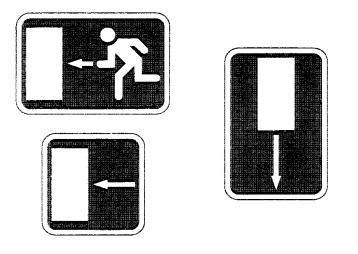
General mandatory sign (to be accompanied where necessary by another sign)

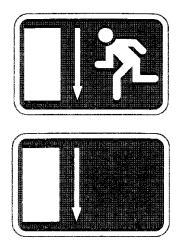
(3.4) Emergency escape or first-aid signs

Intrinsic features:

- rectangular or square shape
- white pictogram on a green background (the green part to take up at least 50% of the area of the sign).

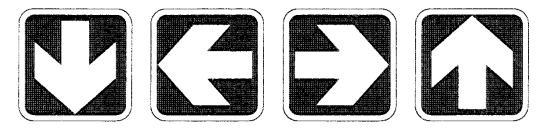
Emergency exit/escape route Emergency exit/escape route





Emergency exit/escape route

This way (supplementary information sign) This way (supplementary information sign)



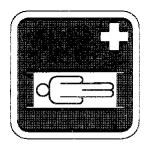
This way (supplementary information sign)

First-aid post First-aid post



First-aid post

Stretcher Stretcher



Stretcher

Safety shower Safety shower



Safety shower

## Eyewash Eyewash



Eyewash

Emergency telephone for first-aid or escape Emergency telephone for first-aid or escape



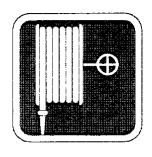
Emergency telephone for first-aid or escape

## (3.5) Fire-fighting signs

Intrinsic features:

- rectangular or square shape
- white pictogram on a red background (the red part to take up at least 50% of the area of the sign).

Fire hose Fire hose



Fire hose

Ladder Ladder



Ladder

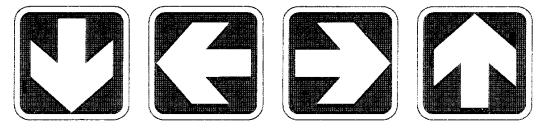
Fire extinguisher Fire extinguisher



Emergency fire telephone Emergency fire telephone



This way (supplementary information sign This way (supplementary information sign



This way (supplementary information sign)

# PART III

#### MINIMUM REQUIREMENTS GOVERNING SIGNS ON CONTAINERS AND PIPES

1. Containers used at work for dangerous substances or preparations defined in Directives 67/548/EEC(4) and 88/379/EEC(5) and containers used for the storage of such dangerous substances or preparations, together with the visible pipes containing or transporting dangerous substances and preparations, must be labelled (pictogram or symbol against a coloured background) in accordance with those Directives.

Paragraph 1 does not apply to containers used at work for brief periods nor to containers whose contents change frequently, provided that alternative adequate measures are taken, in particular for information and/or training, which guarantee the same level of protection.

The labels referred to in paragraph 1 may be:

- replaced by warning signs as provided for in Part II, using the same pictograms or symbols,
- supplemented by additional information, such as the name and/or formula of the dangerous substance or preparation and details of the hazard,
- for the transporting of containers at the place of work, supplemented or replaced by signs applicable throughout the Community for the transport of dangerous substances or preparations.

<sup>(4)</sup> O.J. No. L196, 16.8.1967, p.1.

<sup>(5)</sup> O.J. No. L187, 16.7.1988, p.14.

- 2. Signs must be mounted as follows:
- on the visible side(s),
- in unpliable, self-adhesive or painted form.

**3.** Where appropriate, the signs referred to in paragraph 1 of this Part must have the intrinsic features defined in paragraph 1.4 of Part II and must fulfil the conditions of use for signboards laid down in paragraph 2 of Part II.

4. Without prejudice to paragraphs 1, 2 and 3, the labels used on pipes must be positioned visibly in the vicinity of the most dangerous points, such as valves and joints, and at reasonable intervals.

**5.** Areas, rooms or enclosures used for the storage of significant quantities of dangerous substances or preparations must be indicated by a suitable warning sign taken from paragraph 3.2 of Part II, or markied as provided in paragraph 1 of Part III, unless the labelling of the individual packages or containers is adequate for this purposwe, taking into account Part II, paragraph 1.5 with regard to dimensions.

Stores of a number of dangerous substances or preparations may be indicated by the warning sign for general danger.

The signs or labels referred to above must be positioned, as appropriate, near the storage area or on the door leading into the storage room.

## PART IV

## MINIMUM REQUIREMENTS FOR THE IDENTIFICATION AND LOCATION OF FIRE-FIGHTING EQUIPMENT

#### **1** Preliminary remark

1. This Part applies to equipment used exclusively for fire-fighting purposes.

2. Fire-fighting equipment must be identified by using a specific colour for the equipment and placing a location signboard, and/or by using a specific colour for the places where such equipment is kept, or their access points.

3. The colour for identifying this equipment is red.

The red area must be sufficiently large to allow the equipment to be identified easily.

**4.** The signboards provided for in paragraph 3.5 of Part II must be used to mark the locations of this equipment.

## PART V

### MINIMUM REQUIREMENTS GOVERNING SIGNS USED FOR OSBSTACLES AND DANGEROUS LOCATIONS, AND FOR MARKING TRAFFIC ROUTES

#### 1 Signs for obstacles and dangerous locations

(1.1) Places where there is a risk of colliding with obstacles, of falling or of objects falling should be marked with alternating yellow and black, or red and white stripes in built-up zones in the undertaking to which workers have access during their work.

(1.2) The dimensions of the markings must be commensurate with the scale of the obstacle or dangerous location in question.

(1.3) The yellow and black or red and white stripes must be at an angle of approximately  $45^{\circ}$  and of more or less equal size.

(1.4) Example:



#### 2 Marking of traffic routes

(2.1) Where the use and equipment of rooms so requires for the protection of workers, traffic routes for vehicles must be clearly identified by continuous stripes in a clearly visible colour, preferably white or yellow, taking into account the colour of the ground.

(2.2) The stripes must be located so as to indicate the necessary safe distance between the vehicles and any object which may be near by, and between pedestrians and vehicles.

(2.3) Permanent traffic routes in built-up areas outdoors should, as far as is practicable, be similarly marked, unless they are provided with suitable barriers or pavements.

## PART VI

#### MINIMUM REQUIREMENTS FOR ILLUMINATED SIGNS

#### **1** Intrinsic features

(1.1) The light emitted by a sign must produce a luminous contrast which is appropriate to its environment, in accordance with the intended conditions of use of the sign, but without producing glare for an excessive amount of light or poor visibility as a result of insufficient light.

(1.2) The luminous area emitting a sign may be of a single colour or contain a pictogram on a specified background.

(1.3) The single colour must correspond to the table of colours and their meanings set out in paragraph 4 of Part I.

(1.4) Likewise, when the sign contains a pictogram, the latter must comply with all the relevant rules set out in Part II.

#### 2 Specific rules governing use

(2.1) If a device can emit both continuous and intermittent signs, the intermittent sign should be used to indicate a higher level of danger or a more urgent need for the requested/imposed intervention or action than is indicated by the continuous sign.

The duration of each flash and the frequency of the flashes of an intermittent illuminated sign must be such as to:

- ensure the proper perception of the message, and
- avoid any confusion either between different illuminated signs or with a continuous illuminated sign.

(2.2) If a flashing sign is used insteada of, or together with, an acoustic signal, identical codes must be used.

(2.3) Devices for emitting flashing signs in the event of grave danger must be under special surveillance or be fitted with an auxiliary lamp.

# PART VII

#### MINIMUM REQUIREMENTS FOR ACOUSTIC SIGNALS

### **1** Intrinsic features

- (1.1) Acoustic signals must:
  - (a) have a sound level which is considerably higher than the level of ambient noise, so that it is audible without being excessive or painful;
  - (b) be easily recognizable, particularly in terms of pulse length and the interval between pulses or groups of pulses, and be clearly distinct from any other acoustic signal and ambient noises.

(1.2) If a device can emit an acoustic signal at variable and constant frequencies, the variable frequency should be used to indicate a higher level of danger or a more urgent need for the requested/ imposed intervention or action in relation to the stable frequency.

### 2 Code

2. The signal for evacuation must be continuous.

# PART VIII

#### MINIMUM REQUIREMENTS FOR VERBAL COMMUNICATION

### **1** Intrinsic features

(1.1) Verbal communication between a speaker or emitter and one or more hearers is to take the form of (sometimes coded) short texts, phrases, groups of words and/or individual words.

(1.2) Spoken messages are to be as short, simple and clear as possible; the verbal skills of the speaker and the hearing abilities of the hearer(s) must be such as to ensure reliable verbal communication.

(1.3) Verbal communication is direct (by means of the human voice) or indirect (by means of a human or artificial voice which is broadcast by whatever means is appropriate).

#### 2 Specific rules governing use

(2.1) The persons involved must have a good knowledge of the language used so that they are able to pronounce and understand the spoken message correctly and consequently behave in a way which is appropriate to health and/or safety.

(2.2) If verbal communication is used instead of, or together with, gestures, code wors should be used such as:

—start	to indicate the start of a command.
—stop	to interrupt or end a movement.
—end	to stop the operation.
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—raise	to have a load raised.	
—lower	to have a load lowered.	
—forwards	to be co-ordinated with the corresponding hand signals	
—backwards		
—right		
—left		
—danger	for an emergency stop.	
—quickly	to speed up a movement for safety reasons.	

## PART IX

#### MINIMUM REQUIREMENTS FOR HAND SIGNALS

### **1** Features

**1.** Hand signals must be precise, simple, expansive, easy to make and to understand, and clearly distinct from other such signals.

Where both arms are used at the same time, they must be moved symmetrically and used for giving one sign only.

Provided that they fulfil the conditions given above, the signals used may vary slightly from or be more detailed than those shown in paragraph 3; they must, however, be equally meaningful and comprehensible.

#### 2 Specific rules governing use

(2.1) The person giving the signs, hereinafter referred to as the 'signalman', will use arm/hand movements to give manoeuvring instructions to the person receiving the signs, hereinafter referred to as the operator.

(2.2) The signalman must be able to monitor all manoeuvres visually without being endangered thereby.

(2.3) The signalman's duties must consist exclusively of directing manoeuvres and ensuring the safety of workers in the vicinity.

(2.4) If the conditions described in paragraph 2.2. are not fulfilled, one or more extra signalmen should be deployed.

(2.5) The operator must interrupt the ongoing manoeuvre in order to request new instructions when he is unable to carry out the orders he has received with the necessary safety guarantees.

#### (2.6) Accessories

The operator must be able to recognize the signalman without difficulty.

The signalman is to wear one or more appropriate distinctive items, e.g. a jacket, helmet, sleeves or armbands, or carry bats.

The distinctive items are to be brightly coloured, preferably all of the same colour and for the exclusive use of signalmen.

### **3** Coded signals to be used

### Preliminary remark:

### Preliminary remark:

The following set of coded signals are without prejudice to other codes applicable at Community level, used for the same manoeuvres in certain sectors:

Meaning	Description	Illustration
A. General signals		
START	both arms are extended horizontally with the palms	
Attention Start of Command	facing forwards	
STOP	the right arm points upwards with the palm facing forwards.	ß
Interruption		
End of movement		
END of the operation	both hands are clasped at chest height.	
B. Vertical movements		
RAISE	the right arm points upwards with the palm facing forward and slowly makes a circle.	

Meaning	Description	Illustration
LOWER	the right arm points downwards with the palm facing inwards and slowly makes a circle.	
VERTICAL DISTANCE	the hands indicate the relevant distance.	
C. Horizontal Movements		
MOVE FORWARDS	both arms are bent with the palms facing upwards, and the forearms make slow movements towards the body.	
MOVE BACKWARDS	both arms are bent with the palms facing downwards, and the forearms make slow movements away from the body.	
RIGHT to the signalman's	the right arm is extended more or less horizontally with palm facing downwards and slowly makes small movements to the right.	
LEFT to the signalman's	the left arm is extended more or less horizontally with palm facing downwards and slowly makes small movements to the left.	

Meaning	Description	Illustration
HORIZONTAL DISTANCE	the hands indicate the relevant distance.	
D. Danger		
DANGER	both arms points upwards with the palms facing forwards.	rí)
Emergency stop	the paints facing forwards.	
QUICK	all movements faster.	
SLOW	all movements slower.	