#### STATUTORY INSTRUMENTS

### 1973 No. 2221

### **PETROLEUM**

# The Organic Peroxides (Conveyance by Road) **Regulations 1973**

Made -21st December 1973 Laid before Parliament 17th January 1974 Coming into Operation 1st April 1974

In pursuance of section 6 of the Petroleum (Consolidation) Act 1928(a), as applied by the Petroleum (Organic Peroxides) Order 1973(b), I hereby make the following Regulations:-

1. These Regulations may be cited as the Organic Peroxides (Conveyance by Road) Regulations 1973 and shall come into operation on 1st April 1974.

### 2.—(1) In these Regulations—

"carrying tank" means the tank or, if there is more than one, tanks on a tank wagon or tank trailer designed for the conveyance of liquid, but does not include a fuel tank;

"conveyance" means conveyance by road and, where the context so admits, includes loading and unloading in connection with conveyance by road, and cognate expressions shall be construed accordingly;

"container" (subject to paragraph (4)) means any vessel, can, drum, barrel or other receptacle, but does not include a carrying tank, a freight container or a fuel tank;

"corrosive substance" has the meaning assigned to it by the Corrosive Substances (Conveyance by Road) Regulations 1971(c);

"explosive" has the same meaning as in the Explosives Act 1875(d);

"freight container" means a receptacle having an internal capacity of not less than 14.5 cubic metres (512.1 cubic feet), so constructed as to be suitable for repeated use in the conveyance of freight by one or more means of transport without intermediate reloading of the contents, but does not include a carrying tank;

"fuel tank" means a tank which forms part of a vehicle and which is designed for carrying fuel for use only in the propulsion of that vehicle;

<sup>(</sup>a) 1928 c. 32. (c) S.I. 1971/618 (1971 I, p. 1611).

**<sup>(</sup>b)** S.I. 1973/1897 (1973 III, p. 6579). **(d)** 1875 c. 17.

"inflammable substance" has the meaning assigned to it by Regulation 3 of the Inflammable Substances (Conveyance by Road) (Labelling) Regulations 1971(a);

"organic peroxide" means any substance or mixture to which section 6 of the Petroleum (Consolidation) Act 1928 was applied by Article 2 of the Petroleum (Organic Peroxides) Order 1973;

"owner", in relation to a vehicle which is the subject of a hiring agreement or hire-purchase agreement, means the person in possession of the vehicle under that agreement;

"relevant substance" means any substance to which section 6 of the Petroleum (Consolidation) Act 1928 was applied by Article 2(1)(a) of the Petroleum (Organic Peroxides) Order 1973;

"vehicle" includes a trailer which does not form part of an articulated vehicle.

- (2) For the purposes of these Regulations an articulated vehicle shall be treated as one vehicle.
- (3) For the purposes of these Regulations a freight container conveyed on a vehicle shall be treated as forming part of the vehicle.
- (4) Where any vessel, can, drum, barrel or other receptacle is contained in another container or is wholly enveloped in a covering or coverings of whatever nature, the expression "container" shall, for the purposes of these Regulations, mean the outermost container or covering as the case may be.
- (5) In these Regulations, except so far as the context otherwise requires, any reference to a Regulation or Schedule shall be construed as a reference to a Regulation contained in, or a Schedule to, these Regulations, as the case may be, and any reference in a Regulation or Schedule to a paragraph shall be construed as a reference to a paragraph of that Regulation or Schedule as the case may be.
- (6) The Interpretation Act 1889(b) shall apply for the interpretation of these Regulations as it applies for the interpretation of an Act of Parliament.
- 3. Any person engaged in the conveyance of any organic peroxide shall take all reasonable precautions for preventing fire or explosion.
- 4. Any person engaged in the conveyance of any organic peroxide shall secure so far as is reasonably possible that none of the organic peroxide is spilt.
- 5. Subject to Regulation 17, no person engaged in the conveyance of any organic peroxide in any vehicle shall smoke or carry any naked flame while he is on or in the immediate vicinity of that vehicle.
  - 6. Subject to Regulation 17, no person shall convey in any vehicle any organic

peroxide unless a suitable and efficient fire extinguisher is carried in an easily accessible position on the vehicle.

- 7.—(1) Subject to Regulations 17 and 18, no portable light capable of igniting inflammable vapour, no explosive, no radio-active substance, no substance liable to give off inflammable gas on contact with water and no article or substance (other than an organic peroxide) capable of causing fire or explosion by spontaneous decomposition shall be carried on any vehicle conveying any organic peroxide.
- (2) Subject to Regulation 18, no inflammable gas shall be carried on any vehicle conveying any organic peroxide except in a cigarette lighter or for use in connection with the operation of the vehicle or its equipment.
- (3) Subject to Regulation 18, no oxidising or corrosive substance (other than an organic peroxide) shall be carried on any vehicle conveying any organic peroxide unless either it is carried in a separate compartment of the vehicle or is so secured that none of it will come within 2 metres (6 feet 7 inches) of any organic peroxide:

Provided that this paragraph shall not apply where the organic peroxide conveyed consists only of mixtures containing not more than 15 per cent. by weight of relevant substances and the aggregate weight of those mixtures does not exceed 500 kilograms (1102.5 pounds).

- 8. Subject to Regulation 18, no relevant substance shall be conveyed in any vehicle if there has been added to that substance any liquid or solid other than an organic peroxide so that the resulting mixture is more liable to give rise to fire or explosion than would the relevant substance alone.
- **9.** Subject to Regulation 18, no person shall convey in any tank wagon or tank trailer any organic peroxide other than the organic peroxides specified in Schedule 1.
- 10. Subject to Regulation 18, no person shall convey in any vehicle, otherwise than in the carrying tank of a tank wagon or tank trailer, any organic peroxide unless the organic peroxide is contained in a receptacle which complies with the provisions of Part I of Schedule 2.
- 11.—(1) Subject to Regulation 18, no person shall convey in any vehicle (not being a tank wagon or tank trailer) any organic peroxide to which this Regulation applies unless the organic peroxide is contained in a receptacle which complies with the provisions of Part II of Schedule 2 (in addition to those of Part I of that Schedule).
  - (2) This Regulation applies to the following organic peroxides:—
    - (a) any relevant substance specified in the first column of Schedule 3; and
    - (b) any mixture containing any such substance other than any solution or other mixture specified, in the case of that substance, in the second column of that Schedule.

- 12.—(1) Subject to Regulation 18, any person who conveys in a vehicle any organic peroxide which is unstable above a certain temperature shall ensure that at all times during such conveyance that organic peroxide is kept at a temperature below that at which it is unstable.
- (2) Subject to Regulation 18, and without prejudice to the generality of paragraph (1), any person who conveys in a vehicle any organic peroxide specified in the first column of Schedule 4 shall ensure that at all times during such conveyance that organic peroxide is kept at a temperature which does not exceed that specified in the case of that organic peroxide in the second column of that Schedule.
  - (3) For the purposes of this Regulation—
    - (a) the temperature at which any organic peroxide is kept shall not be such as to give rise to danger as a consequence of a separation of phases; and
    - (b) neither liquid air nor liquid oxygen shall be used as a refrigerating agent.
- 13.—(1) Subject to Regulation 18, the provisions of Part I of Schedule 5 shall have effect with respect to the marking with warning notices of any vehicle engaged in the conveyance of any organic peroxide.
- (2) Subject to Regulation 18, the provisions of Part II of Schedule 5 (in addition to those of Part I of that Schedule) shall have effect with respect to the marking with warning notices of any tank wagon or tank trailer engaged in the conveyance of any organic peroxide.
- 14. Subject to Regulation 18, the provisions of Schedule 6 shall have effect with respect to the marking with warning notices of containers in which organic peroxide is conveyed in any vehicle.
- 15. The provisions of Schedule 7 (which prescribes the form of certain notices) shall have effect for the purposes of Schedules 5 and 6.
- 16. Subject to Regulations 17 and 18, the owner of a vehicle used for the conveyance of any organic peroxide who employs any person in connection with the conveyance shall furnish a copy of these Regulations to, or affix a copy thereof in some place where it can conveniently be read by, that person and shall take all other measures necessary to ensure that that person is acquainted with and carries out the provisions of these Regulations.
- 17. The provisions of Regulations 5, 6, 7(1) and 16 need not be complied with in the case of any vehicle (other than a tank wagon or tank trailer) if—
  - (a) the total quantity of organic peroxides conveyed in the vehicle (leaving out of account any organic peroxide in containers which are not required to display the notice ordinarily required by paragraph 3(1) of Schedule 6) does not exceed 500 kilograms (1102.5 pounds); and
  - (b) the total quantity of organic peroxides specified in paragraph 3(4) of Schedule 6 and conveyed in the vehicle (leaving out of account any organic

peroxide so specified in containers which are not required to display the notice ordinarily required by that paragraph) does not exceed 25 kilograms (55·1 pounds).

- 18. The provisions of Regulations 7 to 14 and 16 need not be complied with in the case of—
  - (a) a vehicle engaged in an international transport operation brought temporarily into Great Britian by a person resident abroad, if—
    - (i) all the organic peroxides conveyed in the vehicle are packed and labelled in accordance with the requirements contained in Annex A to the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) signed at Geneva on 30th September 1957 as amended before the date on which these Regulations were made; and
    - (ii) the vehicle complies in every respect with the requirements relating to vehicles contained in Annex B to that Agreement; or
  - (h) a container conveyed in any vehicle such as is mentioned in paragraph (a).
- 19.—(1) It shall be the duty of a local authority empowered under the Petroleum (Consolidation) Act 1928 to grant petroleum-spirit licences to enforce within their district the provisions of these Regulations, and the owner of a vehicle used for the conveyance of any organic peroxide and any person employed in connection with the conveyance shall provide all reasonable facilities to a duly authorised officer of the local authority for the purpose of his ascertaining whether the provisions of these Regulations are being duly observed.
- (2) Any such local authority as aforesaid in England and Wales may institute proceedings for any offence against these Regulations committed in the area of that authority.

Robert Carr,

One of Her Majesty's Principal Secretaries of State.

Home Office, Whitehall. 21st December 1973.

Regulation 9

### SCHEDULE 1

ORGANIC PEROXIDES WHICH MAY BE CONVEYED IN TANK WAGONS OR TANK TRAILERS

*n*-Butyl perdicarbonate in a solution consisting of inert solvent and not more than 27 per cent. by weight of that substance

Cumene hydroperoxide in a solution consisting of inert solvent and not more than 95 per cent. by weight of that substance

paraMenthane hydroperoxide in a solution consisting of inert solvent and not more than 95 per cent. by weight of that substance

Nonanoyl peroxide in a solution consisting of inert solvent and not more than 40 per cent. by weight of that substance

Peracetic acid in a mixture consisting of acetic acid or an aqueous solution of acetic acid with or without mineral acid and, in either case, not more than 42 per cent. by weight of that substance

2,6,6-Trimethyl norpinanyl hydroperoxide in a mixture consisting of alcohols and ketones and not more than 95 per cent. by weight of that substance.

#### SCHEDULE 2

Regulations 10 and 11

#### REQUIREMENTS AS TO RECEPTACLES

#### PART I

- 1.—(1) The receptacle must be of such type that, in the event of an exothermic reaction, any expansion of the contents is not seriously inhibited.
- (2) The receptacle must be so constructed and closed that none of the contents can, under normal conditions of conveyance, escape from it:

Provided that nothing in this sub-paragraph shall prevent the use of a receptacle having a venting device where such a device is necessary to allow the internal pressure of the receptacle to adjust to atmospheric pressure.

- (3) Where the receptacle has a venting device under the proviso to sub-paragraph (2) above there must be displayed on the container the words "KEEP UPRIGHT—Vented Container" together with a symbol indicating that the container must be kept upright.
- 2. The receptacle, including its closing device, must be so constructed that no part of its interior surface can, under normal conditions of conveyance, be so affected by contact with the contents as to make the use of that receptacle dangerous.
- 3. The receptacle, if made of glass, must be enclosed in a suitable protective package and must be secured inside the package by means of cushioning material of such a kind that is absorbent, is not combustible and will not react chemically with the contents of the receptacle so as to make its use dangerous:

Provided that no cushioning material need be used if the receptacle is not free to move within the protective package and the package affords adequate protection against impact.

#### PART II

- 4. The receptacle must be made of--
  - (a) metal, glass or a suitable plastics material; or
  - (h) in the case of a receptacle used for the conveyance of a solid organic peroxide, either a suitable plastics laminated material or wood or fibre-board lined with a suitable plastics material.
- 5. The receptacle must not contain more than I kilogram (2·2 pounds) of an organic peroxide.
- 6. A protective package of the kind required by paragraph 3 must be made of metal, wood, fibre-board or a suitable plastics material and the receptacle must be enclosed and secured in such a protective package whether the receptacle is made of glass or not.

7. Where any protective package referred to in paragraph 6 encloses several receptacles it must not contain in all more than 1 kilogram (2-2 pounds) of organic peroxides.

### Regulation 11

#### SCHEDULE 3

ORGANIC PEROXIDES WHICH MAY ONLY BE CARRIED IN RECEPTACLES complying with Parts 1 and 11 of Schedule 2

except a solution consisting of inert solvent Acetyl benzoyl peroxide

and not more than 45 per cent. by weight of

that substance

Acetyl cyclohexane sulphonyl

peroxide

except a mixture consisting of inert solids or inert liquids, at least 12 per cent. by weight of water and not more than 82 per cent. by weight of that substance; or a solution consisting of inert solvent and not more than 32 per cent.

by weight of that substance

Acetyl peroxide except a solution consisting of inert solvent

and not more than 27 per cent. by weight of

that substance

n-Butyl-4,4-bis(tert butylperoxy)

valerate

except a mixture consisting of inert solids and not more than 52 per cent. by weight of that

substance

tert Butyl diperphthalate except a solution or a wetted paste consisting

of inert solvent and not more than 55 per cent.

by weight of that substance

tert Butyl hydroperoxide except a solution consisting of inert solvent

(other than water) and not more than 80 per cent. by weight of that substance; a solution consisting of *tert* butyl peroxide and not more than 80 per cent. by weight of *tert* butyl hydroperoxide; a solution consisting of tert butyl peroxide, inert solvent (other than water) and not more than 80 per cent. by weight of tert butyl hydroperoxide; or a mixture consisting of water and not more than 72 per cent. by weight of that substance

tert Butyl peracetate except a solution consisting of inert solvent

and not more than 52 per cent. by weight of

that substance

except a solution consisting of inert solvent tert Butyl perisobutyrate

and not more than 77 per cent. by weight of

that substance

*n*-Butyl perdicarbonate except a solution consisting of inert solvent

and not more than 27 per cent. by weight of

that substance

except a solution or a wetted paste consisting tert Butyl permaleate

of inert solvent and not more than 55 per cent.

by weight of that substance

2,2-bis(tert Butylperoxy) butane except a solution consisting of inert solvent

and not more than 55 per cent. by weight of

that substance

#### SCHEDULE 3 (continued)

1,1-bis(tert Butylperoxy)-3,3,5trimethyl cyclohexane except a solution consisting of inert solvent and not more than 57 per cent. by weight of that substance or a mixture consisting of inert solids and not more than 58 per cent. by weight of that substance

tert Butyl perpivalate

except a solution consisting of inert solvent and not more than 77 per cent. by weight of that substance

paraChlorobenzoyl peroxide

except a solution or a wetted paste consisting of inert solvent and not more than 52 per cent. by weight of that substance or a mixture consisting of water and not more than 75 per cent. by weight of that substance

Cumene hydroperoxide

except a solution consisting of inert solvent and not more than 95 per cent. by weight of that substance

Diacetone alcohol peroxide

except a solution consisting of not more than 57 per cent. by weight of the various peroxides of diacetone alcohol, not more than 9 per cent. by weight of hydrogen peroxide and not less than 26 per cent. by weight of diacetone alcohol

Dibenzyl perdicarbonate

Di-secbutyl perdicarbonate

except a solution consisting of inert solvent and not more than 52 per cent. by weight of that substance

2,2-bis(4,4-Ditert butylperoxy cyclohexyl) propane

except a mixture consisting of inert solids and not more than 42 per cent. by weight of that substance

Dicetyl perdicarbonate

except a solution consisting of inert solvent and not more than 86 per cent. by weight of that substance or a mixture consisting of inert solids and not more than 86 per cent. by weight of that substance

2,4-Dichlorobenzoyl peroxide

except a solution or a wetted paste consisting of inert solvent and not more than 52 per cent. by weight of that substance, or a mixture consisting of water and not more than 75 per cent. by weight of that substance

Dicyclohexyl perdicarbonate

except a mixture consisting of water and not more than 90 per cent. by weight of that substance

2,5-Dimethyl-2,5-bis(tert butylperoxy) hexyne-3

2,5-Dimethyl-2,5-dihydroperoxy hexane

Diisopropyl benzene hydroperoxide

except a solution consisting of inert solvent and not more than 72 per cent. by weight of that substance

### SCHEDULE 3 (continued)

Di-n-propyl perdicarbonate

2-Ethyl hexyl perdicarbonate except a solution consisting of inert solvent

and not more than 42 per cent. by weight of

that substance

3,3,6,6,9,9-Hexamethyl-1,2,4,5-

tetroxonane

Methyl isobutyl ketone peroxide except a solution consisting of inert solvent

and not more than 62 per cent. by weight of

that substance

Methyl ethyl ketone peroxide except a solution consisting of inert solvent

and not more than 60 per cent. by weight of

that substance

Nonanoyl peroxide except a solution consisting of inert solvent

and not more than 80 per cent. by weight of

that substance

Peracetic acid except a mixture consisting of acetic acid or

an aqueous solution of acetic acid with or without mineral acid and in either case not more than 42 per cent. by weight of that

peroxide

Propionyl peroxide except a solution consisting of inert solvent

and not more than 28 per cent. by weight of

that substance

2,6,6-Trimethyl norpinanyl

hydroperoxide

except a mixture consisting of alcohols and ketones and not more than 95 per cent. by

weight of that substance

Regulation 12(2)

### **SCHEDULE 4**

# ORGANIC PEROXIDES WHICH MUST NOT BE CONVEYED ABOVE SPECIFIED TEMPERATURES

Organic Peroxide	Maximum Temperature
Acetyl cyclohexane sulphonyl peroxide and any mixture containing that substance	− 10°C. (14°F.)
tertButyl perisobutyrate and any mixture containing that substance	+ 15°C. (59°F.)
<i>n</i> -Butyl perdicarbonate and any mixture containing that substance	-10°C. (14°F.)(carrying tank) 0°C. (32°F.) (otherwise)
tert Butylperoxy-2-ethyl hexanoate and any mixture containing that substance	+ 20°C. (68°F.)
tertButyl perpivalate and any mixture containing that substance except a solution consisting of inert solvent and not more than 77 per cent. by weight of that substance	− 10°C. (14°F.)

### SCHEDULE 4 (continued)

tertButyl perpivalate, if in a solution consisting of inert solvent and not more than 77 per cent. by weight of that substance	0°C. (32°F.)
Diacetone alcohol peroxide and any mixture containing that substance	+ 25°C. (77°F.)
Dibenzyl perdicarbonate and any mixture containing that substance	+ 25°C. (77°F.)
Di-secbutyl perdicarbonate and any mixture containing that substance except a solution consisting of inert solvent and not more than 52 per cent. by weight of that substance	− 20°C. (− 4°F.)
Di-secbutyl perdicarbonate, if in a solution consisting of inert solvent and not more than 52 per cent. by weight of that substance	− 10°C. (14°F.)
Dicetyl perdicarbonate and any mixture containing that substance	+ 10°C. (50°F.)
Dicyclohexyl perdicarbonate and any mixture containing that substance	+ 5°C. (41°F.)
Di-n-propyl perdicarbonate and any mixture containing that substance	− 25°C. (− 13°F.)
2-Ethyl hexyl perdicarbonate and any mixture containing that substance	0°C. (32°F.)
Nonanoyl peroxide and any mixture containing that substance	0°C. (32°F.)
Octanoyl peroxide and any mixture containing that substance	+ 10°C. (50°F.)
Pelargonyl peroxide and any mixture containing that substance	0°C. (32°F.)
Propionyl peroxide and any mixture containing that substance	+ 15°C. (59°F.)
isoPropyl perdicarbonate and any mixture containing that substance	− 10°C. (14°F.)

### SCHEDULE 5

Regulation 13

## Part I

### MARKING OF VEHICLES

1. In this Schedule, any reference to the prescribed peroxide notice, the prescribed inflammable notice, the prescribed corrosive notice or the prescribed explosive notice is a reference to a notice which complies, as the case may be, with the provisions of Part I, II, III or IV of Schedule 7.

#### 2. Subject to paragraph 3—

- (a) the prescribed peroxide notice shall be clearly displayed at the front and rear of any vehicle conveying any organic peroxide;
- (b) the prescribed inflammable notice shall be clearly displayed at the front and rear of a vehicle conveying any organic peroxide being or containing tert butyl peroxide which gives off an inflammable vapour at a temperature below 23°C. (73°F.) when tested as if it were petroleum-spirit in the manner set forth in Part II of Schedule 2 to the Petroleum (Consolidation) Act 1928;
- (c) the prescribed corrosive notice shall be clearly displayed at the front and rear of a vehicle conveying any organic peroxide being or containing peracetic acid;
- (d) the prescribed explosive notice shall be clearly displayed at the front and rear of a vehicle conveying any organic peroxide specified in paragraph 3(4) of Schedule 6.
- 3.—(1) The provisions of paragraph 2(a) need not be complied with in the case of a vehicle (not being a tank wagon or tank trailer) if—
  - (a) the total quantity of organic peroxides conveyed in the vehicle (leaving out of account any organic peroxide in containers which are not required to display the prescribed peroxide notice ordinarily required by paragraph 3(1) of Schedule 6) does not exceed 500 kilograms (1102.5 pounds); and
  - (b) the total quantity of organic peroxides specified in paragraph 3(4) of Schedule 6 and conveyed in the vehicle (leaving out of account any organic peroxide so specified in containers which are not required to display the prescribed explosive notice ordinarily required by that paragraph) does not exceed 25 kilograms (55·1 pounds).
- (2) The provisions of paragraph 2(b) need not be complied with in the case of a vehicle (not being a tank wagon or tank trailer) if the total quantity of organic peroxides specified in that paragraph and conveyed in the vehicle (leaving out of account any organic peroxide so specified in containers which are not required to display the prescribed inflammable notice ordinarily required by paragraph 3(2) of Schedule 6) does not exceed 500 kilograms (1102.5 pounds).
- (3) The provisions of paragraph 2(c) need not be complied with in the case of a vehicle (not being a tank wagon or tank trailer) if the total quantity of organic peroxides specified in that paragraph and conveyed in the vehicle (leaving out of account any organic peroxide so specified in containers which are not required to display the prescribed corrosive notice ordinarily required by paragraph 3(3) of Schedule 6) does not exceed 500 kilograms (1102.5 pounds).
- (4) The provisions of paragraph 2(d) need not be complied with in the case of a vehicle (not being a tank wagon or tank trailer) if the total quantity of organic peroxides specified in paragraph 3(4) of Schedule 6 and conveyed in the vehicle (leaving out of account any organic peroxide so specified in containers which are not required to display the prescribed explosive notice ordinarily required by that paragraph) does not exceed 25 kilograms (55·1 pounds).
- 4. Each notice required by paragraph 2 shall be painted or otherwise indelibly marked on the vehicle or on a notice board or adhesive label securely fixed to the vehicle and shall be kept clean and in good repair.
  - 5. Each notice required by paragraph 2 shall—
    - (a) be so placed on the vehicle that it is clearly visible from the front or, as the case may be, the rear of the vehicle with the letters of any word forming part of the notice in a vertical plane and arranged horizontally; and
    - (b) subject to sub-paragraph (a) above, be placed at the highest practicable point on the vehicle and as near as possible to the centre thereof.

6. A notice board or label used for the purpose of paragraph 4 shall be made of durable material.

#### PART II

#### ADDITIONAL MARKING OF TANK WAGONS AND TANK TRAILERS

- 7.—(1) On each side of the carrying tank or, if the carrying tank is divided into compartments containing organic peroxides of different sorts, on each side of each compartment there shall be displayed a notice clearly indicating the nature of the contents in accordance with the following provisions of this paragraph.
- (2) The notices required by sub-paragraph (1) above shall indicate the name of the relevant substance contained in the solution or other mixture (being a name by which the substance is described in either column of Part I of the Schedule to the Petroleum (Organic Peroxides) Order 1973) followed by the word "Solution" or "Mixture" as the case may be.
- 8. Each such notice shall be painted or otherwise indelibly marked on the carrying tank or on a notice board or adhesive label complying with the requirements of paragraph 6 and securely fixed to the carrying tank.
  - 9. The letters in each such notice shall be red and—
    - (a) in the case of a carrying tank divided into compartments for the conveyance of organic peroxides of different sorts shall be not less than 5 centimetres (2 inches) high;
    - (b) in any other case shall be not less than 10 centimetres (3.9 inches) high.
  - 10. The background of each notice shall be white.

### SCHEDULE 6

Regulation 14

### MARKING OF CONTAINERS

### Part I

#### REQUIREMENTS

- 1. In this Schedule, any reference to the prescribed peroxide notice, the prescribed inflammable notice, the prescribed corrosive notice or the prescribed explosive notice is a reference to a notice which complies, as the case may be, with the provisions of Part I, II, III or IV of Schedule 7.
- 2.—(1) Subject to paragraphs 4 and 5, there shall be displayed on the outside of any container which contains more than one kilogram of any organic peroxide a notice clearly indicating the nature of the contents in accordance with the following provisions of this paragraph.
- (2) In the case of a relevant substance, the notice required by sub-paragraph (1) above shall indicate the name of the substance (being a name by which the substance is described in either column of Part I of the Schedule to the Petroleum (Organic Peroxides) Order 1973).
- (3) In the case of a solution or other mixture falling within Article 2(1)(b) of the Petroleum (Organic Peroxides) Order 1973, the notice so required shall, subject to sub-paragraph (4) below, indicate the name of the relevant substance contained therein in the largest proportion (being a name by which that substance is described in either column of the said Table) followed by the word "Solution" or "Mixture" as the case may be.

- (4) In the case of a solution or other mixture containing a relevant substance destined for disposal as waste, the notices required by sub-paragraph (1) above may bear the words "DISPOSABLE WASTE" instead of complying with sub-paragraph (3) above.
- 3.—(1) Subject to paragraphs 5 and 6, the prescribed peroxide notice shall be clearly displayed on the outside of any container which contains any organic peroxide to which Regulation 11 applies or more than one kilogram of any other organic peroxide.
- (2) The prescribed inflammable notice shall be clearly displayed on any container which contains more than one kilogram of any organic peroxide being or containing tert butyl peroxide which gives off an inflammable vapour at a temperature below 23°C. (73°F.) when tested as if it were petroleum-spirit in the manner set forth in Part II of Schedule 2 to the Petroleum (Consolidation) Act 1928.
- (3) The prescribed corrosive notice shall be clearly displayed on any container which contains more than one kilogram of any organic peroxide being or containing peracetic acid.
- (4) Subject to paragraphs 7, 8 and 9, the prescribed explosive notice shall be clearly displayed on any container—
  - (a) which is itself or which encloses a metal receptacle containing any organic peroxide being or containing 2,5-dimethylhexane-2,5-diperbenzoate; or
  - (b) which contains more than one kilogram of any organic peroxide being or containing:

acetyl acetone peroxide except a solution consisting of inert solvent and not more than 37 per cent. by weight of that substance;

acetyl cyclohexane sulphonyl peroxide except a solution consisting of inert solvent and not more than 32 per cent. by weight of that substance;

benzoyl peroxide except a wetted paste consisting of inert solvent and not more than 72 per cent. by weight of that substance; a mixture consisting of water and not more than 77 per cent. by weight of that substance; or a mixture consisting of inert solids and not more than 52 per cent. by weight of that substance:

tert butyl perbenzoate except a solution consisting of inert solvent and not more than 75 per cent. by weight of that substance; or a solution consisting of inert solvent, not more than 34 per cent. by weight of tert butyl perdiethylacetate and not more than 34 per cent. by weight of tert butyl perbenzoate;

tert butyl perisobutyrate;

tert butyl perdiethylacetate except a solution consisting of inert solvent and not more than 34 per cent. by weight of that substance; or a solution consisting of inert solvent, not more than 34 per cent. by weight of tert butyl perbenzoate and not more than 34 per cent. by weight of tert butyl perdiethylacetate;

tert butyl isopropyl percarbonate;

cyclohexanone peroxide except a solution or a wetted paste consisting of inert solvent and not more than 62 per cent. by weight of that subtance; or a mixture consisting of water and less than 90 per cent. by weight of that substance:

methyl ethyl ketone peroxide except a solution consisting of inert solvent and not more than 50 per cent. by weight of that substance;

isopropyl perdicarbonate except a solution consisting of inert solvent and not more than 52 per cent. by weight of that substance; or succinic acid peroxide.

(5) Each notice required by this Schedule shall be painted or otherwise indelibly marked on the container or a label securely fixed thereto.

#### PART II

#### EXEMPTIONS

- 4. The provisions of paragraph 2 need not be complied with in the case of a package—
  - (a) in which all the organic peroxides (not being organic peroxides to which Regulation 11 applies) are contained in receptacles complying with the provisions of paragraphs 1 to 6 of Schedule 2; and
  - (b) which does not contain more than 30 kilograms (66·2 pounds) of organic peroxides.
- 5. The provisions of paragraphs 2 and 3(1) need not be complied with in the case of a container—
  - (a) which consists of, or contains a single receptacle containing not more than 5 litres (1·1 gallons) of a mixture which is both an inflammable substance and an organic peroxide; and
  - (b) in respect of which the provisions of Schedule 3 to the Inflammable Substances (Conveyance by Road) (Labelling) Regulations 1971 are complied with,

if the mixture contains not more than 15 per cent. by weight of relevant substances and the container is conspicuously marked to show it contains organic peroxide.

- 6.—(1) The provisions of paragraph 3(1) need not be complied with in the case of a package of which the outermost covering is made of fibre-board or plywood and which is divided into compartments if—
  - (a) it contains no organic peroxide other than one or more of the exempted peroxides;
  - (b) the total quantity of exempted peroxides contained in it does not exceed 50 kilograms (110·2 pounds);
  - (c) all the exempted peroxides are contained in flexible tubes made either of metal or plastics;
  - (d) each tube contains not more than 250 grams (8.8 ounces) of an exempted peroxide; and
  - (e) not more than one tube is contained in any compartment.
  - (2) For the purposes of this paragraph "exempted peroxide" means the following:—

benzoyl peroxide: if in a wetted paste consisting of inert solvent and not more than 72 per cent. by weight of that substance;

tert butyl diperphthalate: if in a wetted paste consisting of inert solvent and not more than 55 per cent. by weight of that substance;

tert butyl permaleate: if in a wetted paste consisting of inert solvent and not more than 55 per cent. by weight of that substance;

parachlorobenzoyl peroxide: if in a wetted paste consisting of inert solvent and not more than 52 per cent. by weight of that substance;

cyclohexanone peroxide: if in a wetted paste consisting of inert solvent and not more than 62 per cent. by weight of that substance; or in a mixture consisting of water and less than 90 per cent. by weight of that substance; or

2,4-dichlorobenzoyl peroxide: if in a wetted paste consisting of inert solvent and not more than 52 per cent. by weight of that substance.

- 7.—(1) The provisions of paragraph 3(4) need not be complied with in the case of a package of which the outermost covering is made of wood and which is divided into compartments if—
  - (a) it contains no organic peroxide specified in paragraph 3(4) other than one or more of the exempted peroxides;
  - (b) the total quantity of organic peroxides contained in it does not exceed 14 kilograms (30.9 pounds);
  - (c) all the organic peroxides are contained in cartons made either of paperboard or plastics;
  - (d) each carton contains not more than 500 grams (17.6 ounces) of an organic peroxide; and
  - (e) not more than one carton is contained in any compartment.
  - (2) For the purposes of this paragraph "exempted peroxide" means the following:—

acetyl acetone peroxide: if technically pure; or in a solution consisting of inert solvent and more than 37 per cent. by weight of that substance;

acetyl cyclohexane sulphonyl peroxide: if in a mixture consisting of inert solids, at least 12 per cent. by weight of water and not more than 82 per cent. by weight of that substance;

benzoyl peroxide: if technically pure; in a wetted paste consisting of inert solvent and more than 72 per cent. by weight of that substance; in a mixture consisting of water and more than 77 per cent. by weight of that substance; or in a mixture consisting of inert solids and more than 52 per cent. by weight of that substance;

tert butyl perbenzoate: if technically pure; or in a solution consisting of inert solvent and more than 75 per cent. by weight of that substance;

tert butyl isopropyl percarbonate: if technically pure; or in a solution in inert solvent:

cyclohexanone peroxide: if technically pure; in a solution consisting of inert solvent and more than 62 per cent. by weight of that substance; in a mixture consisting of water and 90 per cent. or more by weight of that substance; or in a mixture consisting of inert solids and more than 30 per cent. by weight of that substance:

isopropyl perdicarbonate: if technically pure; or in a solution consisting of inert solvent and more than 52 per cent. by weight of that substance; or

succinic acid peroxide: if technically pure; or in a solution in inert solvent.

- 8.—(1) The provisions of paragraph 3(4) need not be complied with in relation to any organic peroxide to which this paragraph applies if—
  - (a) it is contained in—
    - (i) a free-standing rigid receptacle made of plastics; or
    - (ii) a receptacle made of plastics which is fitted in a box or spirally wound drum made of fibre-board; and
  - (b) the receptacle does not contain more than 25 kilograms (55·1 pounds) of the organic peroxide.
  - (2) The organic peroxides to which this paragraph applies are—

tert butyl perbenzoate: if technically pure; or in a solution consisting of inert solvent and more than 75 per cent. by weight of that substance; and

tert butyl isopropyl percarbonate: if technically pure; or in a solution in inert solvent.

- 9.—(1) The provisions of paragraph 3(4) need not be complied with in relation to any organic peroxide to which this paragraph applies if—  $\,$ 
  - (a) it is contained in a receptacle made of plastics which is fitted in a box or spirally wound drum made of fibre-board; and
  - (b) the receptacle does not contain more than 5 kilograms (11 pounds) of the organic peroxide.
  - (2) The organic peroxides to which this paragraph applies are—

cyclohexanone peroxide: if technically pure; in a solution consisting of inert solvent and more than 62 per cent. by weight of that substance; in a mixture consisting of water and not less than 90 per cent. by weight of that substance; or in a mixture consisting of inert solids and more than 30 per cent. by weight of that substance.

#### SCHEDULE 7

Regulation 15

#### FORM OF PRESCRIBED NOTICES

### PART I

### Prescribed Peroxide Notice

1. The peroxide notice shall be in the form set out below, except that the figure "5" may be inserted at the bottom of the notice.



- 2. The dimensions of the notice shall be not less than—
  - (a) 20 centimetres (7.9 inches) square, in the case of a notice displayed on a vehicle in accordance with paragraph 2(a) of Schedule 5;
  - (b) 10 centimetres (3.9 inches) square, in the case of a notice displayed on a container in accordance with paragraph 3(1) of Schedule 6.
- 3. The letters in the notice shall not be less than—
  - (a) 2.5 centimetres (1 inch) high, in the case of a notice displayed on a vehicle as aforesaid;
  - (b) 1.25 centimetres (0.5 inch) high, in the case of a notice displayed on a container as aforesaid.
- 4. The flame symbol and letters in the notice shall be black and the background shall be yellow.

#### PART II

# Prescribed Inflammable Notice

5. The inflammable notice shall be in the form set out below, except that the word "LIQUID" may, if appropriate, be inserted in the notice after the word "INFLAM-MABLE" and such other information as may be appropriate may be inserted therein.



- 6. The dimensions of the notice shall be not less than -
  - (a) 20 centimetres (7.9 inches) square, in the case of a notice displayed on a vehicle in accordance with paragraph 2(b) of Schedule 5;

- (b) 10 centimetres (3.9 inches) square, in the case of a notice displayed on a container in accordance with paragraph 3(2) of Schedule 6.
- 7. The letters in the notice shall be not less than—
  - (a) 2.5 centimetres (1 inch) high, in the case of a notice displayed on a vehicle as aforesaid;
  - (b) 1.25 centimetres (0.5 inch) high, in the case of a notice displayed on a container as aforesaid.
- 8. The flame symbol and letters in the notice shall be black and the background shall be bright red.

#### PART III

### Prescribed Corrosive Notice

9. The corrosive notice shall be in the form set out below, except that such other information as may be appropriate may be inserted therein.



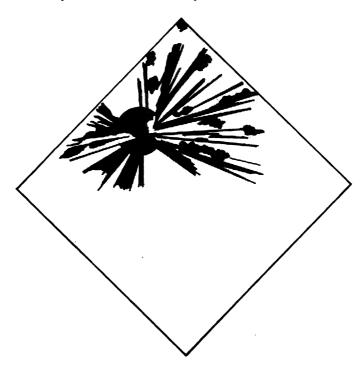
- 10. The dimensions of the notice shall be not less than—
  - (a) 20 centimetres (7.9 inches) square, in the case of a notice displayed on a vehicle in accordance with paragraph 2(c) of Schedule 5;
  - (b) 10 centimetres (3.9 inches) square, in the case of a notice displayed on a container in accordance with paragraph 3(3) of Schedule 6.

- 11. The letters in the notice shall be not less than—
  - (a) 2.5 centimetres (1 inch) high, in the case of a notice displayed on a vehicle as aforesaid;
  - (b) 1.25 centimetres (0.5 inch) high, in the case of a notice displayed on a container as aforesaid.
- 12. The symbols in the notice shall be black and the letters therein shall be white.
- 13. The background to the upper half of the notice shall be white and that of the lower half thereof shall be black.

#### PART IV

### Prescribed Explosive Notice

14. The explosive notice shall be in the form set out below, except that the word "EXPLOSIVE" may be inserted below the symbol.



- 15. The dimensions of the notice shall be not less than—
  - (a) 20 centimetres (7.9 inches) square, in the case of a notice displayed on a vehicle in accordance with paragraph 2(d) of Schedule 5;
  - (b) 10 centimetres (3.9 inches) square, in the case of a notice displayed on a container in accordance with paragraph 3(4) of Schedule 6.
- 16. The letters, if any, in the notice shall be not less than—
  - (a) 2.5 centimetres (1 inch) high, in the case of a notice displayed on a vehicle as aforesaid;

- (b) 1.25 centimetres (0.5 inch) high, in the case of a notice displayed on a container as aforesaid.
- 17. The letters, if any, and the symbol in the notice shall be black and the background shall be orange.

#### **EXPLANATORY NOTE**

(This Note is not part of the Regulations.)

These Regulations made under section 6 of the Petroleum (Consolidation) Act 1928 impose conditions and restrictions on, and require certain precautions to be observed and notices to be displayed during, the conveyance by road of the organic peroxides to which that section was applied by the Petroleum (Organic Peroxides) Order 1973.

Regulations 3 to 8 contain general requirements.

Regulation 9 permits only those organic peroxides specified in Schedule 1 to be conveyed in tank wagons or tank trailers. Apart from that Regulation, any organic peroxide to which the Regulations apply may only be conveyed in receptacles which comply with the general constructional requirements set out in Part I of Schedule 2 (Regulation 10). Regulation 11 imposes additional requirements in the case of a receptacle containing any of the organic peroxides specified in Schedule 3 and, in particular, requires that the receptacles should not contain more than 1 kilogram of the organic peroxide (Schedule 2, Part II, paragraph 5).

Regulation 12 contains requirements as to the temperature at which certain organic peroxides are to be kept during conveyance.

Regulations 13 to 15 contain requirements as to the display of notices upon vehicles and containers.

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