1966. No. 200 **[C]**

FOOD AND DRUGS

Composition

Mineral Hydrocarbons in Food

REGULATIONS, DATED 26TH AUGUST 1966, MADE BY THE MINISTRY OF HEALTH AND SOCIAL SERVICES UNDER SECTIONS 4 AND 68 OF THE FOOD AND DRUGS ACT (NORTHERN IRELAND) 1958.

The Ministry of Health and Social Services, in exercise of the powers conferred upon it by Sections 4 and 68 of the Food and Drugs Act (Northern Ireland) 1958(a), having consulted with such organisations as appear to it to be representative of interests substantially affected by these regulations, hereby makes the following regulations:—

Citation and Commencement

1. These regulations may be cited as the Mineral Hydrocarbons in Food Regulations (Northern Ireland) 1966 and shall come into operation on 27th August 1966.

Interpretation

2.—(1) In these regulations—

"the Act" means the Food and Drugs Act (Northern Ireland) 1958;

"chewing compound" means chewing gum and other products of a like nature and use;

"dried fruit" means prunes, currants, sultanas and raisins;

"mineral hydrocarbon" means any hydrocarbon product, whether liquid, semi-liquid or solid, derived from any substance of mineral origin and includes liquid paraffin, white oil, petroleum jelly, hard paraffin and microcrystalline wax;

"sell" includes offer or expose for sale or have in possession for sale; and "sale" shall be construed accordingly.

Exemptions

3.—(1) Regulation 4 shall not apply in relation to—

(*a*) any dried fruit containing not more than 0·5 part by weight of mineral hydrocarbon per 100 parts by weight of dried fruit;

(*b*) any citrus fruit containing not more than 0·1 part by weight of mineral hydrocarbon per 100 parts by weight of citrus fruit;

(*c*) any sugar confectionery containing mineral hydrocarbon by reason of the use of mineral hydrocarbon as a polishing or glazing agent for confectionery if such confectionery contains by reason thereof not more than 0·2 part by weight of mineral hydrocarbon per 100 parts by weight of such confectionery;

(*d*) any food containing mineral hydrocarbon—

(i) by reason of the use in the composition of such food of dried fruit, citrus fruit or sugar confectionery, or any one or more of these

(a) 1958. c. 27.

commodities, containing mineral hydrocarbon not in excess of the relevant quantities permitted in accordance with sub-paragraphs (*a*), (*b*) and (*c*);

(ii) by reason not of the inclusion of mineral hydrocarbon as an ingredient in such food but because of the use of mineral hydrocarbon as a lubricant or greasing agent on some surface with which such food has necessarily to come into contact during the course of preparation if such food contains by reason thereof not more than 0·2 part by weight of mineral hydrocarbon per 100 parts by weight of the food;

(*e*) any chewing compound which—

(i) contains not more than 60 parts by weight of solid mineral hydrocarbon per 100 parts by weight of chewing compound, and

(ii) contains no mineral hydrocarbon other than any mineral hydrocarbon which complies with the specification therefor set forth in paragraph 4 of Part I of the Schedule;

(*f*) the rind of any whole pressed cheese;

(*g*) any egg, laid by any domestic fowl or domestic duck, which contains mineral hydrocarbon by reason of its having been subjected to a process of preservation consisting of being dipped in, sprayed with or otherwise treated with mineral hydrocarbon and which before sale or exposure for sale is required (by section 12 of the Marketing of Eggs Act (Northern Ireland) 1957(a) and Rules made thereunder(b) to be marked on the shell with the word "SEALED";

(*h*) any food intended for exportation to any place outside the United Kingdom.

(2) Any reference in paragraph (1) to any mineral hydrocarbon shall mean any liquid mineral hydrocarbon, any semi-liquid mineral hydrocarbon or any solid mineral hydrocarbon, as the case may be, which complies with the specifications therefor set forth respectively in paragraphs 1, 2 and 3 of Part I of the Schedule or a mixture of such liquid, semi-liquid or solid mineral hydrocarbons:

Provided that the reference in paragraph (1)(*e*) to solid mineral hydrocarbon shall mean solid mineral hydrocarbon which complies with the specification therefor set forth in paragraph 4 of the said Part I of the Schedule.

(3) An exemption provided for in paragraphs (1) (*a*) to (*g*) shall not apply if the food contains any mineral hydrocarbon other than mineral hydrocarbon of a kind referred to in paragraph (2).

Prohibition of mineral hydrocarbon in food

4. Subject to the provisions of these regulations—

(*a*) no person shall use or permit to be used any mineral hydrocarbon in the composition or preparation of any food;

(*b*) no person shall sell, consign or deliver any food containing any mineral hydrocarbon.

Condemnation of food containing mineral hydrocarbon

5. Where any food is certified by a public analyst as being food in the composition or preparation of which any mineral hydrocarbon has been used which it is an offence against the foregoing provisions to use, permit to be used, sell, consign or deliver, that food may be treated for the purposes of section 9

(a) 1957. c. 27. (b) S.R. & O. (N.I.) 1966, No. 150.

of the Act (under which food may be seized and destroyed on the order of a justice of the peace) as being unfit for human consumption.

Penalties

6. If any person contravenes or fails to comply with any of the foregoing provisions he shall be guilty of an offence and shall be liable on summary conviction—

(*a*) to a fine not exceeding one hundred pounds or to imprisonment for a term not exceeding three months, or to both such fine and such imprisonment; and

(*b*) in the case of a continuing offence, to a further fine not exceeding five pounds for each day during which the offence continues after conviction.

Revocation

7. The Mineral Hydrocarbons in Food Regulations (Northern Ireland) 1964(a) are hereby revoked.

Sealed with the Official Seal of the Ministry of Health and Social Services for Northern Ireland this 26th day of August 1966.

(L.S.) *S. E. Taylor,*
Assistant Secretary.

SCHEDULE Regulation 3(2)

PART I

Specifications for liquid mineral hydrocarbon, semi-liquid mineral hydrocarbon and solid mineral hydrocarbon

Specification for liquid mineral hydrocarbon

1. Liquid mineral hydrocarbon—

(*a*) shall be a transparent, almost colourless and tasteless mixture of liquid mineral hydrocarbons;

(*b*) shall have an ultra-violet extinction (otherwise called absorbance) over the range 240-280 millimicrons not greater than 0·04 for a 1 centimetre layer of a solution in iso-octane containing 1 gram per litre, that is to say, $E\frac{0{\cdot}1\%}{1\text{ cm.}}$ shall not be greater than 0·04 where $E = \log_{10}(Io/I)$ and Io and I are the intensities of the incident radiation and of the transmitted radiation respectively; and

(*c*) shall comply with the tests for acidity or alkalinity, carbonisable substances, solid paraffins, and sulphur compounds given in the monograph for Liquid Paraffin in the British Pharmacopoeia 1963.

(a) S.R. & O. (N.I.) 1964, No. 182.

Specification for semi-liquid mineral hydrocarbon

2. Semi-liquid mineral hydrocarbon—

(*a*) shall be a white translucent unctuous mixture, barely fluorescent in daylight, of semi-liquid mineral hydrocarbons;

(*b*) shall contain not more than 0·1 per cent. by weight of sulphated ash;

(*c*) shall have an ultra-violet extinction (otherwise called absorbance) at 290 millimicrons not greater than 1·0 for a 1 centimetre layer of a solution in iso-octane containing 1 gram per litre, that is to say, $E\frac{0{\cdot}1\%}{1\text{ cm.}}$ shall not be greater than 1·0 where $E = \log_{10}(Io/I)$ and Io and I are the intensities of the incident radiation and of the transmitted radiation respectively; and

(*d*) shall comply with the tests for acidity or alkalinity and sulphur compounds given in the monograph for Liquid Paraffin in the British Pharmacopoeia 1963.

Specification for solid mineral hydrocarbon other than any solid mineral hydrocarbon used or intended for use in chewing compounds

3. Solid mineral hydrocarbon other than any solid mineral hydrocarbon used or intended for use in any chewing compound—

(*a*) shall be an almost odourless and tasteless mixture of solid mineral hydrocarbons;

(*b*) shall contain not more than 0·1 per cent. by weight of sulphated ash;

(*c*) shall comply with the test for acidity or alkalinity given in the monograph for Liquid Paraffin in the British Pharmacopoeia 1963;

(*d*) shall comply with the test for sulphur compounds given in the monograph referred to in the preceding sub-paragraph:
Provided that such test shall be carried out at 70°C. or 5°C. above the congealing point of the solid mineral hydrocarbon, whichever is the higher;

(*e*) shall comply with the requirements specified in one of the following sub-paragraphs, namely—

(i) shall have been tested, before being used in the composition or preparation of any food, for the presence of polycyclic hydrocarbon by the method described in Part II with the result described in paragraph 6 of the said Part II, and if such solid mineral hydrocarbon is tested subsequently by the said method, shall give the said result; or

(ii) have a viscosity at 99°C. not greater than 7·0 centistokes and an ultra-violet extinction (otherwise called absorbance) at 290 millimicrons not greater than 0·04 for a 1 centimetre layer of a solution in iso-octane containing 1 gram per litre, that is to say, $E\frac{0{\cdot}1\%}{1\text{ cm.}}$ shall not be greater than 0·04 where $E = \log_{10}(Io/I)$ and Io and I are the intensities of the incident radiation and of the transmitted radiation respectively; or

(iii) have a viscosity at 99°C. not less than 10·0 centistokes and an ultra-violet extinction (otherwise called absorbance) at 290 millimicrons not greater than 1·0 for a 1 centimetre layer of a solution in iso-octane containing 1 gram per litre, that is to say, $E\frac{0{\cdot}1\%}{1\text{ cm.}}$ shall not be greater than 1·0 where $E = \log_{10}(Io/I)$ and Io and I are the intensities of the incident radiation and of the transmitted radiation respectively.

Specification for solid mineral hydrocarbon in chewing compounds

4. Solid mineral hydrocarbon used or intended for use in any chewing compound—

(*a*) shall comply with the requirements contained in sub-paragraphs (*a*), (*b*), (*c*) and (*d*) of paragraph 3; and

(*b*) shall have been tested, before being used in the composition of any chewing compound, for the presence of polycyclic hydrocarbon by the method described in Part II with the result described in paragraph 6 of the said Part II, and if such solid mineral hydrocarbon is tested subsequently by the said method, shall give the said result.

PART II

Method of testing solid mineral hydrocarbon for the presence of polycyclic hydrocarbon

Principle of method

1. The method is based on the maximum extinction within four wavelength ranges of an extract prepared by various physical and chemical processes on an iso-octane solution of a sample of solid mineral hydrocarbon.

General Instructions

2. Because of the sensitivity of the test, the possibility of errors arising from contamination is great. All glassware including stoppers and stopcocks shall be scrupulously cleaned to remove all organic matter such as oil, grease, detergent residues, etc. and shall be examined under ultra-violet light to detect any residual fluorescent contamination. All glassware shall be rinsed with purified iso-octane immediately before use. No grease shall be used on stopcocks or joints. Great care shall be taken to avoid contamination of the samples in handling and to ensure absence of any extraneous material arising from inadequate packaging. Because some of the polynuclear hydrocarbons sought in this test are very susceptible to photo-oxidation, the entire procedure shall be carried out under subdued light.

Apparatus

3.—(1) The following apparatus shall be used—

(*a*) separatory funnels of 250 millilitre, 500 millilitre, 1 litre and 2 litre capacity, equipped with tetrafluoroethylene polymer stopcocks;

(*b*) a reservoir of 500 millilitre capacity, equipped with a 24/29 British Standard 572: 1960 taper male fitting at the bottom and a suitable ball-joint at the top for connecting to the nitrogen supply; the male fitting shall be equipped with glass hooks;

(*c*) a chromatographic tube, 180 millimetres in length, inside diameter to be 15·7 millimetres $\pm 0{\cdot}1$ millimetre, equipped with a coarse, fritted-glass disc, a tetrafluoroethylene polymer stopcock, and a female 24/29 British Standard 572:1960 tapered fitting at the opposite end; the female fitting shall be equipped with glass hooks;

(*d*) a tetrafluoroethylene polymer disc, 5 centimetres in diameter and approximately 5 millimetres thick with a hole bored in the centre closely to fit the stem of the chromatographic tube;

(*e*) a heating jacket, conical, for a 500 millilitre separatory funnel, with variable transformer heat control;

(*f*) a suction flask being either a 250 or 500 millilitre filter flask;

(*g*) a condenser with 24/29 British Standard 572: 1960 joints, fitted with a drying tube of optional length;