

## SCHEDULE 2

Regulation 3 (1) and (2)

## HAZARDOUS SUBSTANCES AND CONTROLLED QUANTITIES

PART A  
NAMED SUBSTANCES

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>
<i>Hazardous Substances</i>	<i>Controlled quantity (Q) tonnes</i>	<i>Quantity for the purposes of Note 4 to the notes to Parts A and B (Q*)</i>
1. Ammonium nitrate to which Note 1 of the notes to this Part applies	5000.00	
2. Ammonium nitrate to which Note 2 of the notes to this Part applies	1000.00	1250.00
3. Ammonium nitrate to which Note 3 of the notes to this Part applies	350.00	
4. Ammonium nitrate to which Note 4 of the notes to this Part applies	10.00	
5. Potassium nitrate to which Note 5 of the notes to this Part applies	5000.00	
6. Potassium nitrate to which Note 6 of the notes to this Part applies	1250.00	
7. Arsenic pentoxide, arsenic (V) acid and/or salts	1.00	
8. Arsenic trioxide, arsenious (III) acid and/or salts	0.10	
9. Bromine	20.00	
10. Chlorine	10.00	
11. Nickel compounds in inhalable powder form (nickel monoxide, nickel dioxide, nickel sulphide, trinickel disulphide, dinickel trioxide)	1.00	
12. Ethyleneimine	10.00	
13. Fluorine	10.00	
14. Formaldehyde ( $\geq 90\%$ )	5.00	
15. Hydrogen	2.00	5.00
16. Hydrogen chloride (liquefied gas)	25.00	
17. Lead alkyls	5.00	

*Status: This is the original version (as it was originally made).*

18. Liquefied petroleum gas, including commercial propane and commercial butane, and any mixture thereof, when held at a pressure greater than 1.4 bar absolute.	25.00	50.00
19. Liquefied extremely flammable gases excluding pressurised LPG (entry no.18)	50.00	
20. Natural gas	15.00	50.00
21. Acetylene	5.00	
22. Ethylene oxide	5.00	
23. Propylene oxide	5.00	
24. Methanol	500.00	
25. 4,4-Methylenebis (2-Chloraniline) and/or salts, in powder form	0.01	
26. Methylisocyanate	0.15	
27. Oxygen	200.00	
28. Toluene diisocyanate	10.00	
29. Carbonyl dichloride (phosgene)	0.30	
30. Arsenic trihydride (arsine)	0.20	
31. Phosphorus trihydride (phosphine)	0.20	
32. Sulphur dichloride	1.00	
33. Sulphur trioxide (including sulphur trioxide dissolved in sulphuric acid to form Oleum)	15.00	
34. Polychlorodibenzofurans and polychlorodibenzodioxins (including TCDD), calculated in TCDD equivalent (to which Note 7 of the Notes to this Part applies)	0.001	
35. The following CARCINOGENS at concentration above 5% by weight: 4-Aminobiphenyl and/or its salts; Benzotrifluoride; Benzidine and/or salts; Bis(chloromethyl) ether; Chloromethyl methyl ether; 1,2-Dibromoethane; Diethyl sulphate; Dimethyl sulphate; Dimethylcarbamoyl chloride; 1,2-Dibromo-3-chloropropane; 1,2-Dimethylhydrazine; Dimethylnitrosamine; Hexamethylphosphoric triamide; Hydrazine; 2-Naphthylamine and/or salts; 4-Nitrodiphenyl; and 1,3 Propanesultone	0.5	
36. Petroleum products	2500.00	

(a) gasolines and naphthas,

(b) kerosenes (including jet fuels),

(c) gas oils (including diesel fuels, home heating oils and gas oil blending streams)

(d) heavy fuel oils

37. Acrylonitrile	20.00	50.00
38. Carbon disulphide	20.00	50.00
39. Hydrogen selenide	1.00	50.00
40. Nickel tetracarbonyl	1.00	5.00
41. Oxygen difluoride	1.00	5.00
42. Pentaborane	1.00	5.00
43. Selenium hexafluoride	1.00	50.00
44. Stibine (antimony hydride)	1.00	5.00
45. Sulphur dioxide	20.00	50.00
46. Tellurium hexafluoride	1.00	5.00
47. 2,2-Bis(tert-butylperoxy) butane (>70%)	5.00	50.00
48. 1,1-Bis(tert-butylperoxy) cyclohexane (>80%)	5.00	50.00
49. tert-Butyl peroxyacetate (>70%)	5.00	50.00
50. tert-Butyl peroxyisobutyrate (>80%)	5.00	50.00
51. tert-Butyl peroxyisopropylcarbonate (>80%)	5.00	50.00
52. tert-Butyl peroxy maleate (>80%)	5.00	50.00
53. tert-Butyl peroxy pivalate (>77%)	5.00	50.00
54. Cellulose Nitrate other than—	50.00	

(1) cellulose nitrate for which a license, granted under the Manufacture and Storage of Explosives Regulations (Northern Ireland) 2006(1), is required; or

(2) cellulose nitrate where the nitrogen content of the cellulose nitrate does not exceed 12.3% by weight and contains not more than 55 parts of cellulose nitrate per 100 parts by weight of solution.

55. Dibenzyl peroxydicarbonate (>90%)	5.00	50.00
56. Diethyl peroxydicarbonate (>30%)	5.00	50.00
57. 2,2- Dihydroperoxypropane (>30%)	5.00	50.00

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(1) [S.R. 2006 No.425](#)

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58. Di-isobutyryl peroxide (>50%)	5.00	50.00
59. Di-n-propyl peroxydicarbonate (>80%)	5.00	50.00
60. Di-sec-butyl peroxydicarbonate (>80%)	5.00	50.00
61. 3,3,6,6,9,9-Hexamethyl-1,2,4,5-tetroxacyclononane (>75%)	5.00	50.00
62. Methyl ethyl ketone peroxide (>60%)	5.00	50.00
63. Methyl isobutyl ketone peroxide (>60%)	5.00	50.00
64. Peracetic acid (>60%)	5.00	50.00
65. Sodium Chlorate	25.00	50.00
66. Gas or any mixture of gases (not covered by entry 20) which is flammable in air, when held as a gas	15.00	
67. A substance or any mixture of substances which is flammable in air when held above its boiling point (measured at 1 bar absolute) as a liquid or as a mixture of liquid and gas at a pressure of more than 1.4 bar absolute (see Note 8 of the notes to this Part).	25.00	

## NOTES TO PART A

### 1. Ammonium nitrate: fertilisers capable of self-sustaining decomposition

This applies to ammonium nitrate-based compound/composite fertilisers (compound/composite fertilisers containing ammonium nitrate with phosphate and/ or potash) in which the nitrogen content as a result of ammonium nitrate is

- (a) between 15.75 per cent (2) and 24.5 per cent(3) by weight, and either with not more than 0.4 per cent total combustible/organic materials or which satisfy the detonation resistance test described in Schedule 2 to the Ammonium Nitrate Materials (High Nitrogen Content) Safety Regulations 2003(4),
- (b) 15.75 per cent by weight or less and unrestricted combustible materials,

and which are capable of self-sustaining decomposition according to the UN Trough Test (see United Nations Recommendations on the Transport of Dangerous Goods: Manual of Tests and Criteria, Part III, sub-section 38.2).

### 2. Ammonium nitrate: fertiliser grade

This applies to straight ammonium nitrate-based fertilisers and to ammonium nitrate-based compound/composite fertilisers in which the nitrogen content as a result of ammonium nitrate is

- (a) more than 24.5 per cent by weight, except for mixtures of ammonium nitrate with dolomite, limestone and/or calcium carbonate with a purity of at least 90 per cent,
- (b) more than 15.75 per cent by weight for mixtures of ammonium nitrate and ammonium sulphate,

(2) 15.75 per cent nitrogen content by weight as a result of ammonium nitrate corresponds to 45 per cent ammonium nitrate

(3) 24.5 per cent nitrogen content by weight as a result of ammonium nitrate corresponds to 70 per cent ammonium nitrate

(4) [S.I. 2003/1082](#)

(c) more than 28 per cent<sup>(5)</sup> by weight for mixtures of ammonium nitrate with dolomite, limestone and/or calcium carbonate with a purity of at least 90 per cent, and which satisfy the detonation resistance test described in Schedule 2 to the Ammonium Nitrate Materials (High Nitrogen Content) Safety Regulations 2003.

3. Ammonium nitrate: technical grade

This applies to

- (a) ammonium nitrate and preparations of ammonium nitrate in which the nitrogen content as a result of the ammonium nitrate is
  - (i) between 24.5 per cent and 28 per cent by weight, and which contain not more than 0.4 per cent combustible substances,
  - (ii) more than 28 per cent by weight, and which contain not more than 0.2 per cent combustible substances,
- (b) aqueous ammonium nitrate solutions in which the concentration of ammonium nitrate is more than 80 per cent by weight.

4. Ammonium nitrate: “off-specs” material and fertilisers not fulfilling the detonation resistance test

This applies to

- (a) material rejected during the manufacturing process and to ammonium nitrate and preparations of ammonium nitrate, straight ammonium nitrate-based fertilisers and ammonium nitrate-based compound/composite fertilisers referred to in Notes 2 and 3, that are being or have been returned from the final user to a manufacturer, temporary storage or reprocessing plant for reworking, recycling or treatment for safe use, because they no longer comply with the specifications of Notes 2 and 3; and
- (b) fertilisers referred to in Note 1(a) and Note 2 which do not satisfy the detonation resistance test described in Schedule 2 to the Ammonium Nitrate Materials (High Nitrogen Content) Safety Regulations 2003.

5. Potassium nitrate: composite potassium-nitrate based fertilisers composed of potassium nitrate in prilled/granular form.

6. Potassium nitrate: composite potassium-nitrate based fertilisers composed of potassium nitrate in crystalline form.

7. Polychlorodibenzofurans and polychlorodibenzodioxins.

The quantities of polychlorodibenzofurans and polychlorodibenzodioxins are calculated using the following factors:

<i>International Toxic Equivalent Factors (ITEF) for the congeners of concern (NATO/CCMS)(6)</i>			
2,3,7,8-TCDD	1	2,3,7,8-TCDF	0.1
1,2,3,7,8-Pe-CDD	0.5	2,3,4,7,8-PeCDF	0.5
		1,2,3,7,8-PeCDF	0.05
1,2,3,4,7,8-HxCDD	0.1	1,2,3,4,7,8-HxCDF	0.1
1,2,3,6,7,8-HxCDD	0.1	1,2,3,7,8,9-HxCDF	0.1

(5) 28 per cent nitrogen content by weight as a result of ammonium nitrate corresponds to 80 per cent ammonium nitrate.

(6) North Atlantic Treaty Organisation/Committee for the Challenges of Modern Society

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1,2,3,7,8,9-HxCDD	0.1	1,2,3,6,7,8-HxCDF	0.1
		2,3,4,6,7,8-HxCDF	0.1
1,2,3,4,6,7,8-HpCDD	0.01		
OCDD	0.001	1,2,3,4,6,7,8-HpCDF	0.01
		1,2,3,4,7,8,9-HpCDF	0.01
		OCDF	0.001

(T=tetra, Pe=penta, Hx=hexa, Hp=hepta, O=octa)

8. Entry number 67

The controlled quantity of 25 tonnes in column 2 of entry 67 refers, in case of a mixture of substances, to the quantity of substances within the mixture held above their boiling point (measured at 1 bar absolute).

## PART B

### CATEGORIES OF SUBSTANCES AND PREPARATIONS NOT SPECIFICALLY NAMED IN PART A

<i>Column 1</i>	<i>Column 2</i>
<i>Categories of hazardous substances</i>	<i>Controlled quantity (Q) in tonnes</i>
1. VERY TOXIC	5.00
2. TOXIC	50.00
3. OXIDISING	50.00
4. EXPLOSIVE ((see Note 2 to this Part) where the substance, preparation or article falls under UN/ADR Division 1.4, excluding those at a factory subject to the public hearing procedure under regulation 12 of the Manufacture and Storage of Explosives Regulations (Northern Ireland) 2006(7) or those licensed under the Explosives in Harbour Area Regulations (Northern Ireland) 1995(8))	50.00
5. EXPLOSIVE ((see Note 2 to this Part) where the substance, preparation or article falls under any of: UN/ADR Divisions 1.1, 1.2, 1.3, 1.5 or 1.6 or risk phrase R2 or R3, excluding those at a factory subject to the public hearing procedure under regulation 12 of the Manufacture and Storage of Explosives Regulations (Northern Ireland) 2006 or those licensed under the Explosives in Harbour Areas Regulations (Northern Ireland) 1995)	10.00
6. FLAMMABLE (where the substance or preparation falls within the definition given in Note 3(a) to this Part)	5000.00

(7) S.R. 2006 No.425

(8) S.R. 1995 No.87

7.	HIGHLY FLAMMABLE (where the substance or preparation falls within the definition given in Note 3(b)(i) and (b)(ii) to this Part)	50.00
8.	HIGHLY FLAMMABLE liquids (where the substance or preparation falls within the definition given in Note 3(b)(iii) to this Part)	5000.00
9.	EXTREMELY FLAMMABLE (where the substance or preparation falls within the definition given in Note 3(c) to this Part)	10.00
10.	DANGEROUS FOR THE ENVIRONMENT risk phrases:	100.00
	(i) R50: “Very toxic to aquatic organisms” (including R50/53);	200.00
	(ii) R51/53: “Toxic to aquatic organisms; may cause long term adverse effects in the aquatic environment”	
11.	ANY CLASSIFICATION not covered by those given above in combination with risk phrases:	100.00
	(i) R14: “reacts violently with water” (including R14/15);	50.00
	(ii) R29: “in contact with water, liberates toxic gas”	

## NOTES TO PART B

1. Substances and preparations shall be classified for the purposes of this Schedule according to regulation 4 of the Chemicals (Hazard Information and Packaging for Supply) Regulations (Northern Ireland) 2009<sup>(9)</sup> (“CHIP”) whether or not the substance or preparation is required to be classified for the purposes of those Regulations or, in the case of a pesticide approved under the Food and Environment Protection Act 1985<sup>(10)</sup> in accordance with the classification assigned to it by that approval.

2. An “explosive” means:

- (a) a substance or preparation which creates the risk of an explosion by shock, friction, fire or other sources of ignition (risk phrase R2),
- (b) a substance or preparation which creates extreme risks of explosion by shock, friction, fire or other sources of ignition (risk phrase R3), or
- (c) a substance, preparation or article covered by Class 1 of the European Agreement concerning the International Carriage of Dangerous Goods by Road (UN/ADR), concluded on 30 September 1957, as amended, as transposed by Council Directive [94/55/EC](#) of 21 November 1994 on the approximation of the laws of the Member States with regard to the transport of dangerous goods by road<sup>(11)</sup>.

Included in this definition are pyrotechnics, which for the purposes of these Regulations are defined as substances (or mixtures of substances), designated to produce heat, light, sound, gas or smoke or a combination of such effects through self sustained exothermic chemical reactions.

<sup>(9)</sup> S.R. 2009 No.238

<sup>(10)</sup> 1985 c.48

<sup>(11)</sup> O.J. No.L.319, 12.12.1994, p.7. Directive as last amended by Commission Directive [2003/28/EC](#) O.J No. L90,8.4.2003, p.45

*Status: This is the original version (as it was originally made).*

Where a substance or preparation is classified by both UN/ADR and risk phrase R2 or R3, the UN/ADR classification shall take precedence over assignment of risk phrases.

Substances and articles of Class 1 are classified in any of the divisions 1.1 to 1.6 in accordance with the UN/ADR classification scheme. The divisions concerned are:

Division 1.1: Substances and articles which have a mass explosion hazard (a mass explosion is an explosion which affects almost the entire load virtually instantaneously).

Division 1.2: Substances and articles which have a projection hazard but not a mass explosion hazard.

Division 1.3: Substances and articles which have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard:

- (i) combustion of which gives rise to considerable radiant heat; or
- (ii) which burn one after another, producing minor blast or projection effects or both.

Division 1.4: Substances and articles which present only a slight risk in the event of ignition or initiation during carriage. The effects are largely confined to the package and no projection of fragments of appreciable size or range is to be expected. An external fire shall not cause virtually instantaneous explosion of virtually the entire contents of the package.

Division 1.5: Very insensitive substances having a mass explosion hazard which are so insensitive that there is very little probability of initiation or of transition from burning to detonation under normal conditions of carriage. As a minimum requirement they shall not explode in the external fire test.

Division 1.6: Extremely insensitive articles which do not have a mass explosion hazard. The articles contain only extremely insensitive detonating substances and demonstrate a negligible probability of accidental initiation or propagation. The risk is limited to the explosion of a single article.

Included in this definition are also explosive or pyrotechnic substances or preparations contained in articles. In the case of articles containing explosive or pyrotechnic substances or preparations, if the quantity of the substance or preparation contained is known, that quantity shall be considered for the purposes of these Regulations. If the quantity is not known, then, for the purposes of these Regulations, the whole article shall be treated as explosive.

3. In categories 6, 7, 8 and 9 “flammable”, “highly flammable” and “extremely flammable” mean—

- (a) flammable liquids: means substances and preparations having a flash point equal to or greater than 21°C and less than or equal to 55°C (risk phrase R 10), supporting combustion;
- (b) highly flammable liquid means—
  - (i) substances and preparations which may become hot and finally catch fire in contact with air at ambient temperature without any input or energy (risk phrase R 17); and
  - (ii) substances and preparations which have a flash point lower than 55°C and which remain liquid under pressure, where particular processing conditions, such as high pressure or high temperature, may create major-accident hazards;
  - (iii) substances and preparations having a flash point lower than 21°C and which are not extremely flammable (risk phrase R11, second indent);
- (c) extremely flammable gases and liquids means—
  - (i) liquid substances and preparations which have a flash point lower than 0°C and the boiling point (or, in the case of a boiling range, the initial boiling point) of which at normal pressure is less than or equal to 35°C (risk phrase R12, first indent); and



- (ii) gases which are flammable in contact with air at ambient temperature and pressure (risk phrase R12, second indent), which are in a gaseous or supercritical state; and
- (iii) flammable and highly flammable liquid substances and preparations maintained at a temperature above their boiling point.

## NOTES TO PARTS A AND B

1. Mixtures and preparations shall be treated in the same way as pure substances provided they remain within the concentration limits set according to their properties under the relevant provisions specified in CHIP, unless a percentage composition or other description is specifically given.

2. In the case of substances and preparations with properties giving rise to more than one classification the lowest thresholds shall apply.

3. Where a substance or group of substances listed in Part A also falls within a category of Part B, the controlled quantities set out in Part A must be used.

4. In the case of an establishment where no individual substance or preparation is present in a quantity above or equal to the relevant controlled quantity for that substance or preparation, the addition of hazardous substances to determine the controlled quantity shall be carried out according to the following rule:

If the sum— $q_1/Q + q_2/Q + q_3/Q + q_4/Q + q_5/Q + \dots \geq 1$

(where  $q_x$  = the quantity of hazardous substance  $x$  (or category of substance) present,  $Q$  = the relevant controlled quantity ( $Q$ ) from Part A or B, except for those substances for which column 3 of Part A contains a quantity  $Q^*$ , in which case the quantity  $Q^*$  shall be used in place of the controlled quantity  $Q$  in column 2)

then the controlled quantity of each of the substances which are added together in accordance with each of paragraphs 5(a) to (c) below shall be deemed to be present for the purposes of sections 108(1), 112(2)(a), 117(2)(a) of the 2011 Act and of section 149 (enforcement notice to have effect against subsequent development) of the 2011 Act as modified by regulation 17(1) and Part 2 of Schedule 3 to these Regulations.

5. The addition rule in paragraph 4 will apply for the following circumstances:—
- (a) for the addition of substances and preparations named in Part A and classified as toxic or very toxic, together with substances and preparations falling into categories 1 or 2 of Part B;
  - (b) for the addition of substances and preparations named in Part A and classified as oxidising, explosive, flammable, highly flammable or extremely flammable, together with substances and preparations falling into categories 3, 4, 5, 6, 7, 8 or 9 of Part B;
  - (c) for the addition of substances and preparations named in Part A and classified as dangerous for the environment (R50 (including R50/53) or R51/53), together with substances and preparations falling into categories 10(i) or 10(ii) of Part B.

## PART C

### SUBSTANCES USED IN AN INDUSTRIAL CHEMICAL PROCESS

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Column 1

Column 2

**Status:** This is the original version (as it was originally made).

*Hazardous substances*

*Controlled quantity*

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Where it is believed that a substance, which is within Part A or Part B, may be generated during loss of control of an industrial chemical process (“HS”), any substance which is used in that process (“S”).

The amount of S which it is believed may generate, on its own or in combination with other substances used in the relevant industrial chemical process, the controlled quantity of the HS in question.

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## NOTES TO PART C

1. The expression “which it is believed may be generated during loss of control of an industrial chemical process” has the same meaning as in the Directive.
2. Where a substance falling within Part A or B also falls within Part C, the classification with the lowest controlled quantity shall apply, subject to Note 3 to the notes to Parts A and B.