

SCHEDULE 1

Regulations 2(1) and 3(1)

Dangerous substances

PART 1

Categories of Dangerous Substances

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>
Hazard categories in accordance with the CLP Regulation	Qualifying quantity in tonnes of dangerous substances for the application of:	
	Lower tier requirements	Upper tier requirements
Section 'H' – HEALTH HAZARDS		
H1 ACUTE TOXIC Category 1, all exposure routes	5	20
H2 ACUTE TOXIC	50	200
— Category 2, all exposure routes		
— Category 3, inhalation exposure route (see note 7)		
H3 STOT SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE STOT SE Category 1	50	200
Section 'P' – PHYSICAL HAZARDS		
P1a EXPLOSIVES (see note 8)	10	50
— Unstable explosives or		
— Explosives, Division 1.1, 1.2, 1.3, 1.5 or 1.6, or — Substances or mixtures which have explosive properties according to method A.14 of Regulation (EC) No. 440/2008 of 30 May 2008 laying down test methods pursuant to Regulation (EC) No. 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (see note 9) and do not belong to the hazard classes Organic peroxides or Self-reactive substances and mixtures		
P1b EXPLOSIVES (see note 8)	50	200
Explosives, Division 1.4 (see note 10)		
P2 FLAMMABLE GASES	10	50
Flammable gases, Category 1 or 2		
P3a FLAMMABLE AEROSOLS (see note 11(1))	150 (net)	500 (net)
'Flammable' aerosols Category 1 or 2, containing flammable gases Category 1 or 2 or flammable liquids Category 1		
P3b FLAMMABLE AEROSOLS (see note 11(1))	5,000 (net)	50,000 (net)
'Flammable' aerosols Category 1 or 2, not containing flammable gases Category 1 or 2 nor flammable liquids category 1 (see note 11(2))		
P4 OXIDISING GASES	50	200
Oxidising gases, Category 1		

Status: Point in time view as at 01/06/2015.

Changes to legislation: There are currently no known outstanding effects for the The Control of Major Accident Hazards Regulations 2015, SCHEDULE 1. (See end of Document for details)

P5a FLAMMABLE LIQUIDS	10	50
— Flammable liquids, Category 1, or		
— Flammable liquids Category 2 or 3 maintained at a temperature above their boiling point, or		
— Other liquids with a flash point $\leq 60^{\circ}\text{C}$, maintained at a temperature above their boiling point (see note 12)		
P5b FLAMMABLE LIQUIDS	50	200
— Flammable liquids Category 2 or 3 where particular processing conditions, such as high pressure or high temperature, may create major accident hazards, or		
— Other liquids with a flash point $\leq 60^{\circ}\text{C}$ where particular processing conditions, such as high pressure or high temperature, may create major accident hazards (see note 12)		
P5c FLAMMABLE LIQUIDS	5,000	50,000
Flammable liquids, Categories 2 or 3 not covered by P5a and P5b		
P6a SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES	10	50
Self-reactive substances and mixtures, Type A or B or organic peroxides, Type A or B		
P6b SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES	50	200
Self-reactive substances and mixtures, Type C, D, E or F or organic peroxides, Type C, D, E, or F		
P7 PYROPHORIC LIQUIDS AND SOLIDS	50	200
Pyrophoric liquids, Category 1		
Pyrophoric solids, Category 1		
P8 OXIDISING LIQUIDS AND SOLIDS	50	200
Oxidising Liquids, Category 1, 2 or 3, or		
Oxidising Solids, Category 1, 2 or 3		
Section 'E' – ENVIRONMENTAL HAZARDS		
E1 Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1	100	200
E2 Hazardous to the Aquatic Environment in Category Chronic 2	200	500
Section 'O' – OTHER HAZARDS		
O1 Substances or mixtures with hazard statement EUH014	100	500
O2 Substances and mixtures which in contact with water emit flammable gases, Category 1	100	500
O3 Substances or mixtures with hazard statement EUH029	50	200

PART 2

Named Dangerous Substances

<i>Column 1</i>	<i>CAS number</i> <i>(see note 22)</i>	<i>Column 2</i>	<i>Column 3</i>
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Dangerous substances	Qualifying quantity in tonnes of dangerous substances for the application of:		
	Lower tier requirements	Upper tier requirements	
1. Ammonium nitrate (see note 13)	5,000	10,000	
2. Ammonium nitrate (see note 14)	1,250	5,000	
3. Ammonium nitrate (see note 15)	350	2,500	
4. Ammonium nitrate (see note 16)	10	50	
5. Potassium nitrate (see note 17)	5,000	10,000	
6. Potassium nitrate (see note 18)	1,250	5,000	
7. Arsenic pentoxide, arsenic (V) acid and/or salts	1303-28-2	1	2
8. Arsenic trioxide, arsenious (III) acid and/or salts	1327-53-3		0.1
9. Bromine	7726-95-6	20	100
10. Chlorine	7782-50-5	10	25
11. Nickel compounds in inhalable powder form: nickel monoxide, nickel dioxide, nickel sulphide, trinickel disulphide, dinickel trioxide			1
12. Ethyleneimine	151-56-4	10	20
13. Fluorine	7782-41-4	10	20
14. Formaldehyde (concentration \geq 90 %)	50-00-0	5	50
15. Hydrogen	1333-74-0	5	50
16. Hydrogen chloride (liquefied gas)	7647-01-0	25	250
17. Lead alkyls		5	50
18. Liquefied flammable gases, Category 1 or 2 (including LPG) and natural gas (see note 19)		50	200
19. Acetylene	74-86-2	5	50
20. Ethylene oxide	75-21-8	5	50
21. Propylene oxide	75-56-9	5	50
22. Methanol	67-56-1	500	5,000
23. 4, 4'-Methylene bis (2-chloraniline) and/or salts, in powder form	101-14-4		0.01
24. Methylisocyanate	624-83-9		0.15
25. Oxygen	7782-44-7	200	2,000
26. 2,4 -Toluene diisocyanate	584-84-9	10	100
2,6 -Toluene diisocyanate	91-08-7		

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27. Carbonyl dichloride (phosgene)	75-44-5	0.3	0.75
28. Arsine (arsenic trihydride)	7784-42-1	0.2	1
29. Phosphine (phosphorus trihydride)	7803-51-2	0.2	1
30. Sulphur dichloride	10545-99-0		1
31. Sulphur trioxide	7446-11-9	15	75
32. Polychlorodibenzofurans and polychlorodibenzodioxins (including TCDD), calculated in TCDD equivalent (see note 20)			0.001
33. The following CARCINOGENS or the mixtures containing the following carcinogens at concentrations above 5% by weight: 4-Aminobiphenyl and/or its salts, Benzotrichloride, 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	2
34. Petroleum products and alternative fuels (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, (e) alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a) to (d)		2,500	25,000
35. Anhydrous ammonia	7664-41-7	50	200
36. Boron trifluoride	7637-07-2	5	20
37. Hydrogen sulphide	7783-06-4	5	20
38. Piperidine	110-89-4	50	200
39. Bis(2-dimethylaminoethyl) (methyl)amine	3030-47-5	50	200
40. 3-(2-Ethylhexyloxy)propylamine	5397-31-9	50	200
41. Mixtures of sodium hypochlorite classified as Aquatic Acute Category 1 [H400] containing less than 5% active chlorine and not classified under any of the other hazard categories in Part 1 of this Schedule, provided that the mixture in the absence of sodium hypochlorite would not be classified as Aquatic Acute Category 1 [H400].		200	500
42. Propylamine (see note 21)	107-10-8	500	2,000

43. Tert-butyl acrylate (see note 21)	1663-39-4	200	500
44. 2-Methyl-3-butenitrile (see note 21)	16529-56-9	500	2,000
45. Tetrahydro-3,5-dimethyl-1,3,5-thiadiazine-2-thione (Dazomet) (see note 21)	533-74-4	100	200
46. Methyl acrylate (see note 21)	96-33-3	500	2,000
47. 3-Methylpyridine (see note 21)	108-99-6	500	2,000
48. 1-Bromo-3-chloropropane (see note 21)	109-70-6	500	2,000

PART 3

Notes to Parts 1 and 2

1. Substances and mixtures are classified in accordance with the CLP Regulation.

2. Mixtures must be treated in the same way as pure substances provided they remain within concentration limits set according to their properties under the CLP Regulation, unless a percentage composition or other description is specifically given.

3. The qualifying quantities set out in Parts 1 and 2 of this Schedule relate to each establishment.

The quantities to be considered for the application of these Regulations are the maximum quantities which are present or are likely to be present at any one time. Dangerous substances present at an establishment only in quantities equal to or less than 2% of the relevant qualifying quantity must be ignored for the purposes of calculating the total quantity present if their location within an establishment is such that it cannot act as an initiator of a major accident elsewhere at that establishment.

4. The following rules governing the addition of dangerous substances, or categories of dangerous substances, apply where appropriate.

In the case of an establishment where no individual dangerous substance is present in a quantity above or equal to the relevant qualifying quantity, the following rule must be applied to determine whether these Regulations apply to the establishment.

An establishment is an upper tier establishment if the sum: $q_1/Q_{U1} + q_2/Q_{U2} + q_3/Q_{U3} + q_4/Q_{U4} + q_5/Q_{U5} + \dots$ is greater than or equal to 1, where q_x = the quantity of dangerous substance x (or category of dangerous substances) falling within Part 1 or Part 2 of this Schedule, and Q_{UX} = the relevant qualifying quantity of dangerous substance or category x from Column 3 of Part 1 or from Column 3 of Part 2 of this Schedule.

An establishment is a lower tier establishment if the sum: $q_1/Q_{L1} + q_2/Q_{L2} + q_3/Q_{L3} + q_4/Q_{L4} + q_5/Q_{L5} + \dots$ is greater than or equal to 1, where q_x = the quantity of dangerous substance x (or category of dangerous substances) falling within Part 1 or Part 2 of this Schedule, and Q_{LX} = the relevant qualifying quantity for dangerous substance or category x from Column 2 of Part 1 or from Column 2 of Part 2 of this Schedule.

This rule must be used to assess the health hazards, physical hazards and environmental hazards. It must therefore be applied three times—

- (a) for the addition of dangerous substances listed in Part 2 that fall within acute toxicity category 1, 2 or 3 (inhalation route) or STOT SE category 1, together with dangerous substances falling within section H, entries H1 to H3 of Part 1;

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- (b) for the addition of dangerous substances listed in Part 2 that are explosives, flammable gases, flammable aerosols, oxidising gases, flammable liquids, self-reactive substances and mixtures, organic peroxides, pyrophoric liquids and solids, oxidising liquids and solids, together with dangerous substances falling within section P, entries P1 to P8 of Part 1;
- (c) for the addition of dangerous substances listed in Part 2 that fall within hazardous to the aquatic environment acute category 1, chronic category 1 or chronic category 2, together with dangerous substances falling within section E, entries E1 and E2 of Part 1.

These Regulations apply where any of the sums obtained by (a), (b) or (c) is greater than or equal to 1.

5. In the case of dangerous substances which are not covered by the CLP Regulation, including waste, but which nevertheless are present, or are likely to be present, in an establishment and which possess or are likely to possess, under the conditions found at the establishment, equivalent properties in terms of major accident potential, these must be provisionally assigned to the most analogous category or named dangerous substance falling within the scope of these Regulations.

6. In the case of dangerous substances with properties giving rise to more than one classification, for the purposes of these Regulations the lowest qualifying quantities apply. However, for the application of the rule in Note 4, the lowest qualifying quantity for each group of categories in Notes 4(a), 4(b) and 4(c) corresponding to the classification concerned must be used.

7. Dangerous substances that fall within Acute Toxic Category 3 via the oral route (H 301) fall under entry H2 ACUTE TOXIC in those cases where neither acute inhalation toxicity classification nor acute dermal toxicity classification can be derived, for example due to lack of conclusive inhalation and dermal toxicity data.

8. The hazard class Explosives includes explosive articles (see Section 2.1 of Annex I to the CLP Regulation). If the quantity of the explosive substance or mixture contained in the article is known, that quantity must be considered for the purposes of these Regulations. If the quantity of the explosive substance or mixture contained in the article is not known, then, for the purposes of these Regulations, the whole article must be treated as explosive.

9. Testing for explosive properties of substances and mixtures is only necessary if the screening procedure according to Appendix 6, Part 3 of the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria (“the UN Manual of Tests and Criteria”)^{M1} identifies the substance or mixture as potentially having explosive properties.

Marginal Citations

M1 More guidance on waiving of the test can be found in the A.14 (explosive properties) method description in the Annex to Council Regulation (EC) No. 440/2008 of 30 May 2008 laying down test methods pursuant to Regulation (EC) No. 1907/2006 of the European Parliament and of the Council on the Registration Evaluation, Authorisation and Restriction of Chemicals (REACH) (O.J. L142, 31.5.2008, p. 1).

10. If Explosives of Division 1.4 are unpacked or repacked, they must be assigned to the entry P1a, unless the hazard is shown to still correspond to Division 1.4, in accordance with the CLP Regulation.

11.—(1) Flammable aerosols are classified in accordance with Council Directive [75/324/EEC](#) of 20 May 1975 on the approximation of the laws of the Member States relating to aerosol dispensers^{M2}. “Extremely flammable” and “Flammable” aerosols of that Directive correspond to Flammable Aerosols Category 1 and 2 respectively of the CLP Regulation.

(2) In order to use this entry, it must be documented that the aerosol dispenser does not contain Flammable Gas Category 1 or 2 nor Flammable Liquid Category 1.

Marginal Citations

M2 O.J. L147, 9.6.1975, p. 40.

12. According to paragraph 2.6.4.5 in Annex I to the CLP Regulation, liquids with a flash point of more than 35°C need not be classified in Category 3 if negative results have been obtained in the sustained combustibility test L.2, Part III, section 32 of the UN Manual of Tests and Criteria. This is however not valid under elevated conditions such as high temperature or pressure, and therefore such liquids are included in this entry.

13. Ammonium nitrate (5,000/10,000): fertilisers capable of self-sustaining decomposition.

This applies to ammonium nitrate based compound/composite fertilisers (compound/composite fertilisers contain ammonium nitrate with phosphate and/or potash) which are capable of self-sustaining decomposition according to the UN Trough Test (the UN Manual of Tests and Criteria, Part III, subsection 38.2), and in which the nitrogen content as a result of ammonium nitrate is—

- (a) between 15.75% ^{M3} and 24.5% ^{M4} by weight, and either with not more than 0.4% total combustible/organic materials or which fulfil the requirements of Annex III-2 to Regulation (EC) No. 2003/2003 of the European Parliament and of the Council of 13 October 2003 relating to fertilisers (“Regulation (EC) No. 2003/2003”) ^{M5}; or
- (b) equal to or less than 15.75% by weight and unrestricted combustible materials.

Marginal Citations

M3 15.75% nitrogen content by weight as a result of ammonium nitrate corresponds to 45% ammonium nitrate.

M4 24.5% nitrogen content by weight as a result of ammonium nitrate corresponds to 70% ammonium nitrate.

M5 O.J. L304, 21.11.2003, p. 1.

14. Ammonium nitrate (1,250/5,000): fertiliser grade.

This applies to straight ammonium nitrate based fertilisers and to ammonium nitrate based compound/composite fertilisers which fulfil the requirements of Annex III-2 to Regulation (EC) No. 2003/2003 and in which the nitrogen content as a result of ammonium nitrate is—

- (a) more than 24.5% by weight, except for mixtures of straight ammonium nitrate based fertilisers with dolomite, limestone and/or calcium carbonate with a purity of at least 90%;
- (b) more than 15.75% by weight for mixtures of ammonium nitrate and ammonium sulphate; or
- (c) more than 28% ^{M6} by weight for mixtures of straight ammonium nitrate based fertilisers with dolomite, limestone and/or calcium carbonate with a purity of at least 90%.

Marginal Citations

M6 28% nitrogen content by weight as a result of ammonium nitrate corresponds to 80% ammonium nitrate.

15. Ammonium nitrate (350/2,500): technical grade.

This applies to ammonium nitrate and mixtures of ammonium nitrate in which the nitrogen content as a result of the ammonium nitrate is—

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- (a) between 24.5% and 28% by weight, and which contain not more than 0.4% combustible substances; or
- (b) more than 28% by weight, and which contain not more than 0.2% combustible substances.

It also applies to aqueous ammonium nitrate solutions in which the concentration of ammonium nitrate is more than 80% by weight.

16. Ammonium nitrate (10/50): ‘off-specs’ material and fertilisers not fulfilling the detonation test.

This applies to—

- (a) material rejected during the manufacturing process and to ammonium nitrate and mixtures of ammonium nitrate, straight ammonium nitrate based fertilisers and ammonium nitrate based compound/composite fertilisers referred to in Notes 14 and 15, 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 14 and 15;
- (b) fertilisers referred to in Note 13(a), and Note 14 which do not fulfil the requirements of Annex III-2 to Regulation (EC) No. 2003/2003.

17. Potassium nitrate (5,000/10,000).

This applies to any composite potassium nitrate based fertiliser (in prilled/granular form) which has the same hazardous properties as pure potassium nitrate.

18. Potassium nitrate (1,250/5,000).

This applies to any composite potassium nitrate based fertiliser (in crystalline form) which has the same hazardous properties as pure potassium nitrate.

19. Upgraded biogas.

For the purpose of these Regulations, upgraded biogas may be classified under entry 18 of Part 2 of this Schedule where it has been processed in accordance with applicable standards for purified and upgraded biogas ensuring a quality equivalent to that of natural gas, including the content of Methane, and which has a maximum of 1% Oxygen.

20. Polychlorodibenzofurans and polychlorodibenzodioxins.

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

WHO 2005 TEF ¹			
2,3,7,8-TCDD	1	2,3,7,8-TCDF	0.1
1,2,3,7,8-PeCDD	1	2,3,4,7,8-PeCDF	0.3
		1,2,3,7,8-PeCDF	0.03
1,2,3,4,7,8-HxCDD	0.1		
1,2,3,6,7,8-HxCDD	0.1	1,2,3,4,7,8-HxCDF	0.1
1,2,3,7,8,9-HxCDD	0.1	1,2,3,7,8,9-HxCDF	0.1
		1,2,3,6,7,8-HxCDF	0.1

¹ Van den Berg et al: The 2005 World Health Organisation Re-evaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin like Compounds.

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1,2,3,4,6,7,8-HpCDD	0.01	2,3,4,6,7,8-HxCDF	0.1
OCDD	0.0003	1,2,3,4,6,7,8-HpCDF	0.01
		1,2,3,4,7,8,9-HpCDF	0.01
		OCDF	0.0003

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

¹ Van den Berg et al: The 2005 World Health Organisation Re-evaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin like Compounds.

21. In cases where this dangerous substance falls within category P5a Flammable liquids or P5b Flammable liquids, then for the purposes of these Regulations the lowest qualifying quantity applies.

22. The CAS number is shown only for indication.

Status:

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Changes to legislation:

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