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## ANNEX I

# **DANGEROUS SUBSTANCES**

Dangerous substances covered by the hazard categories listed in Column 1 of Part 1 of this Annex are subject to the qualifying quantities set out in Columns 2 and 3 of Part 1.

Where a dangerous substance is covered by Part 1 of this Annex and is also listed in Part 2, the qualifying quantities set out in Columns 2 and 3 of Part 2 apply.

## PART 1

# Categories of dangerous substances

This Part covers all dangerous substances falling under the hazard categories listed in Column 1:

Column 1	Column 2	Column 3	
Hazard categories in accordance with	Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of		
Regulation (EC) No 1272/2008	Lower-tier requirements	Upper-tier requirements	
Section 'H' – HEALTH HAZARDS			
H1 ACUTE TOXIC Category 1, all exposure routes	5	20	
H2 ACUTE TOXIC  — Category 2, all exposure routes  — Category 3, inhalation exposure route (see note 7)	50	200	
H3 STOT SPECIFIC TARGET ORGAN	50	200	

TOXICITY – SINGLE EXPOSURE STOT SE Category 1		
Section 'P' – PHYSICAL HAZARDS		
P1a EXPLOSIVES (see note 8)  — Unstable explosives or  — Explosives, Division 1.1, 1.2, 1.3, 1.5 or 1.6, or  — Substances or mixtures having explosive properties according to method A.14 of Regulation (EC) No 440/2008 (see note 9) and do not belong to the hazard classes Organic peroxides or Self- reactive substances and mixtures	10	50
P1b EXPLOSIVES (see note 8) Explosives, Division 1.4 (see note 10)	50	200
P2 FLAMMABLE GASES Flammable gases, Category 1 or 2	10	50
P3a FLAMMABLE AEROSOLS (see note 11.1) 'Flammable' aerosols Category 1 or 2, containing flammable gases Category 1 or 2 or flammable liquids Category 1	150 (net)	500 (net)
P3b FLAMMABLE AEROSOLS (see note 11.1) 'Flammable' aerosols Category 1 or 2, not containing flammable gases Category 1 or 2 nor flammable liquids category 1 (see note 11.2)	5 000(net)	50 000(net)
P4 OXIDISING GASES Oxidising gases, Category 1	50	200

P5a FLAMMABLE LIQUIDS	10	50
<ul> <li>Flammable liquids,</li> <li>Category 1, or</li> <li>Flammable liquids</li> <li>Category 2 or 3</li> <li>maintained at a</li> <li>temperature above</li> <li>their boiling point,</li> <li>or</li> </ul>		
<ul> <li>Other liquids with a flash point ≤ 60 °C, maintained at a temperature above their boiling point (see note 12)</li> </ul>		
P5b FLAMMABLE LIQUIDS	50	200
<ul> <li>Flammable liquids         Category 2 or 3         where particular processing conditions, such as high pressure or high temperature, may create majoraccident hazards, or         Other liquids with a flash point ≤ 60 °C where particular processing conditions, such as high pressure or high temperature, may create majoraccident hazards (see note 12)     </li> </ul>		
P5c FLAMMABLE LIQUIDS Flammable liquids, Categories 2 or 3 not covered by P5a and P5b	5 000	50 000
P6a SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES Self-reactive substances and mixtures, Type A or B or organic peroxides, Type A or B	10	50

P6b SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES Self-reactive substances and mixtures, Type C, D, E or F or organic peroxides, Type C, D, E, or F	50	200
P7 PYROPHORIC LIQUIDS AND SOLIDS Pyrophoric liquids, Category 1 Pyrophoric solids, Category 1	50	200
P8 OXIDISING LIQUIDS AND SOLIDS Oxidising Liquids, Category 1, 2 or 3, or Oxidising Solids, Category 1, 2 or 3	50	200
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

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PART 2

Named dangerous substances

Column 1		CAS number <sup>a</sup>	Column 2	Column 3
Dangerous substances		Qualifying quantity (to application of		ity (tonnes) for the
			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

a The CAS number is shown only for indication.

b Provided that the mixture in the absence of sodium hypochlorite would not be classified as Aquatic Acute Category 1 [H400].

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.	Ethyleneimi	151-56-4 ne	10	20
13.	Fluorine	7782-41-4	10	20
14.	Formaldehyo (concentration ≥ 90 %)		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

The CAS number is shown only for indication.

Provided that the mixture in the absence of sodium hypochlorite would not be classified as Aquatic Acute Category 1 [H400]. b

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.	Methylisocya	624-83-9 nate		0,15
25.	Oxygen	7782-44-7	200	2 000
26.	2,4 -Toluene diisocyanate	584-84-9	10	100
2,6 -To		91-08-7		
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.	Polychlorodil and	 penzofurans		0,001

**a** The CAS number is shown only for indication.

**b** Provided that the mixture in the absence of sodium hypochlorite would not be classified as Aquatic Acute Category 1 [H400].

polychlorodil (including TCDD), calculated in TCDD equivalent (see note 20)	benzodioxins		
33. The following CARCINOG or the mixtures containing the following carcinogens at concentration 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, Dimethyl sulphate, Dimethylcarbamoyl chloride, 1,2-Dibromo-3-chloropropane, 1,2-Dibromo-3-chloropropane, 1,2-Dimethylhydrazine, Dimethylnitrosamine, Hexamethylphosphoriotriamide, Hydrazine, 2- Naphthylamine and/or salts, 4-Nitrodiphenyl, and 1,3 Propanesultone	S	0,5	2
34. Petroleum products and	_	2 500	25 000

The CAS number is shown only for indication.

Provided that the mixture in the absence of sodium hypochlorite would not be classified as Aquatic Acute Category 1 [H400]. b

	alternative fuels			
(a)	gasolines and			
(b)	naphthas, 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 environmenta hazards as the products referred to in points (a) to (d)			
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

**a** The CAS number is shown only for indication.

**b** Provided that the mixture in the absence of sodium hypochlorite would not be classified as Aquatic Acute Category 1 [H400].

39.	Bis(2- dimethylamir (methyl)amin		50	200
40.	3-(2- Ethylhexylox	5397-31-9 y)propylamin	50	200
sodium classifie Acute C [H400] less that chlorine classifie of the o	cures <sup>b</sup> of hypochlorite ed as Aquatic Category 1 containing n 5 % active e and not ed under any ther hazard les in Part 1 of		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- butenenitrile (see note 21)	16529-56-9	500	2 000
45.	Tetrahydro-3, dimethyl-1,3, thiadiazine-2-thione (Dazomet) (see note 21)	γ,	100	200
46.	Methyl acrylate (see note 21)	96-33-3	500	2 000
47.	3- Methylpyridi	108-99-6 ne	500	2 000

The CAS number is shown only for indication.

Provided that the mixture in the absence of sodium hypochlorite would not be classified as Aquatic Acute Category 1 [H400]. b

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	(see note 21)			
48.	1-Bromo-3- chloropropan (see note 21)	109-70-6 e	500	2 000

a The CAS number is shown only for indication.

## NOTES TO ANNEX I

- 1. Substances and mixtures are classified in accordance with Regulation (EC) No 1272/2008.
- 2. Mixtures shall be treated in the same way as pure substances provided they remain within concentration limits set according to their properties under Regulation (EC) No 1272/2008, or its latest adaptation to technical progress, unless a percentage composition or other description is specifically given.
- 3. The qualifying quantities set out above relate to each establishment.

The quantities to be considered for the application of the relevant Articles 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 shall 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, shall 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 quantities, the following rule shall be applied to determine whether the establishment is covered by the relevant requirements of this Directive.

This Directive shall apply to upper-tier establishments 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 Annex,

and  $Q_{UX}$  = the relevant qualifying quantity for dangerous substance or category x from Column 3 of Part 1 or from Column 3 of Part 2 of this Annex.

This Directive shall apply to lower-tier establishments 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 Annex,

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 Annex.

b Provided that the mixture in the absence of sodium hypochlorite would not be classified as Aquatic Acute Category 1 [H400].

This rule shall 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;
- (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

The relevant provisions of this Directive 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 Regulation (EC) No 1272/2008, 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 shall be provisionally assigned to the most analogous category or named dangerous substance falling within the scope of this Directive.
- 6. In the case of dangerous substances with properties giving rise to more than one classification, for the purposes of this Directive the lowest qualifying quantities shall 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 shall be used.
- 7. Dangerous substances that fall within Acute Toxic Category 3 via the oral route (H 301) shall 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 Regulation (EC) No 1272/2008). If the quantity of the explosive substance or mixture contained in the article is known, that quantity shall be considered for the purposes of this Directive. If the quantity of the explosive substance or mixture contained in the article is not known, then, for the purposes of this Directive, the whole article shall 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 (UN Manual of Tests and Criteria)<sup>(1)</sup> identifies the substance or mixture as potentially having explosive properties.
- 10. If Explosives of Division 1.4 are unpacked or repacked, they shall be assigned to the entry P1a, unless the hazard is shown to still correspond to Division 1.4, in accordance with Regulation (EC) No 1272/2008.

- 11.1. Flammable aerosols are classified in accordance with the Council Directive 75/324/ EEC of 20 May 1975 on the approximation of the laws of the Member States relating to aerosol dispensers<sup>(2)</sup> (Aerosol Dispensers Directive). 'Extremely flammable' and 'Flammable' aerosols of Directive 75/324/EEC correspond to Flammable Aerosols Category 1 or 2 respectively of Regulation (EC) No 1272/2008.
- 11.2. 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.
- 12. According to paragraph 2.6.4.5 in Annex I to Regulation (EC) No 1272/2008, 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 (see UN Manual of Tests and Criteria, Part III, subsection 38.2), and in which the nitrogen content as a result of ammonium nitrate is

- between 15,75 %<sup>(3)</sup> and 24,5 %<sup>(4)</sup> 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<sup>(5)</sup>,
- 15,75 % by weight or less and unrestricted combustible materials.
- 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

- 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 %,
- more than 15,75 % by weight for mixtures of ammonium nitrate and ammonium sulphate,
- more than 28 %<sup>(6)</sup> by weight for mixtures of straight ammonium nitrate-based fertilisers with dolomite, limestone and/or calcium carbonate with a purity of at least 90 %.
- 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

- between 24,5 % and 28 % by weight, and which contain not more than 0,4 % combustible substances.
- 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

- 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,
- fertilisers referred to in first indent of Note 13, and Note 14 to this Annex 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 those composite potassium-nitrate based fertilisers (in prilled/granular form) which have the same hazardous properties as pure potassium nitrate.

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

This applies to those composite potassium-nitrate based fertilisers (in crystalline form) which have the same hazardous properties as pure potassium nitrate.

# 19. Upgraded biogas

For the purpose of the implementation of this Directive, upgraded biogas may be classified under entry 18 of Part 2 of Annex I 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			
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
1,2,3,4,6,7,8-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, P = penta, Hx = hexa, Hp = hepta, O = octa)

Reference — 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 this Directive the lowest qualifying quantities shall apply.

## ANNEX II

# Minimum data and information to be considered in the safety report referred to in Article 10

1. Information on the management system and on the organisation of the establishment with a view to major-accident prevention.

This information shall contain the elements indicated in Annex III.

- 2. Presentation of the environment of the establishment:
- (a) description of the establishment and its environment including the geographical location, meteorological, geological, hydrographic conditions and, if necessary, its history;
- (b) identification of installations and other activities of the establishment which could present a major-accident hazard;
- (c) on the basis of available information, identification of neighbouring establishments, as well as sites that fall outside the scope of this Directive, areas and developments that could be the source of, or increase the risk or consequences of a major accident and of domino effects;
- (d) description of areas where a major accident may occur.
- 3. Description of the installation:
- (a) description of the main activities and products of the parts of the establishment which are important from the point of view of safety, sources of major-accident risks and conditions under which such a major accident could happen, together with a description of proposed preventive measures;
- (b) description of processes, in particular the operating methods; where applicable, taking into account available information on best practices;
- (c) description of dangerous substances:
  - (i) inventory of dangerous substances including:
    - the identification of dangerous substances: chemical name, CAS number, name according to IUPAC nomenclature,

- the maximum quantity of dangerous substances present or likely to be present;
- (ii) physical, chemical, toxicological characteristics and indication of the hazards, both immediate and delayed for human health and the environment;
- (iii) physical and chemical behaviour under normal conditions of use or under foreseeable accidental conditions.
- 4. Identification and accidental risks analysis and prevention methods:
- (a) detailed description of the possible major-accident scenarios and their probability or the conditions under which they occur including a summary of the events which may play a role in triggering each of these scenarios, the causes being internal or external to the installation; including in particular:
  - (i) operational causes;
  - (ii) external causes, such as those related to domino effects, sites that fall outside the scope of this Directive, areas and developments that could be the source of, or increase the risk or consequences of a major accident;
  - (iii) natural causes, for example earthquakes or floods;
- (b) assessment of the extent and severity of the consequences of identified major accidents including maps, images or, as appropriate, equivalent descriptions, showing areas which are likely to be affected by such accidents arising from the establishment;
- (c) review of past accidents and incidents with the same substances and processes used, consideration of lessons learned from these, and explicit reference to specific measures taken to prevent such accidents;
- (d) description of technical parameters and equipment used for the safety of installations.
- 5. Measures of protection and intervention to limit the consequences of a major accident:
- (a) description of the equipment installed in the plant to limit the consequences of major accidents for human health and environment, including for example detection/protection systems, technical devices for limiting the size of accidental releases, including water spray; vapour screens; emergency catch pots or collection vessels; shut-off-valves; inerting systems; fire water retention;
- (b) organisation of alert and intervention;
- (c) description of mobilisable resources, internal or external;
- (d) description of any technical and non-technical measures relevant for the reduction of the impact of a major accident.

#### ANNEX III

# Information referred to in Article 8(5) and Article 10 on the safety management system and the organisation of the establishment with a view to the prevention of major accidents

For the purpose of implementing the operator's safety management system, account shall be taken of the following elements:

- (a) the safety management system shall be proportionate to the hazards, industrial activities and complexity of the organisation in the establishment and be based on assessment of the risks; it should include the part of the general management system which includes the organisational structure, responsibilities, practices, procedures, processes and resources for determining and implementing the major-accident prevention policy (MAPP);
- (b) the following issues shall be addressed by the safety management system:
  - (i) organisation and personnel the roles and responsibilities of personnel involved in the management of major hazards at all levels in the organisation, together with the measures taken to raise awareness of the need for continuous improvement. The identification of training needs of such personnel and the provision of the training so identified. The involvement of employees and of subcontracted personnel working in the establishment which are important from the point of view of safety;
  - (ii) identification and evaluation of major hazards adoption and implementation of procedures for systematically identifying major hazards arising from normal and abnormal operation including subcontracted activities where applicable and the assessment of their likelihood and severity;
  - (iii) operational control adoption and implementation of procedures and instructions for safe operation, including maintenance, of plant, processes and equipment, and for alarm management and temporary stoppages; taking into account available information on best practices for monitoring and control, with a view to reducing the risk of system failure; management and control of the risks associated with ageing equipment installed in the establishment and corrosion; inventory of the establishment's equipment, strategy and methodology for monitoring and control of the condition of the equipment; appropriate follow-up actions and any necessary countermeasures;
  - (iv) management of change adoption and implementation of procedures for planning modifications to, or the design of new installations, processes or storage facilities;
  - (v) planning for emergencies adoption and implementation of procedures to identify foreseeable emergencies by systematic analysis, to prepare, test and review emergency plans to respond to such emergencies and to provide specific training for the staff concerned. Such training shall be given to all personnel working in the establishment, including relevant subcontracted personnel;
  - (vi) monitoring performance adoption and implementation of procedures for the ongoing assessment of compliance with the objectives set by the

operator's MAPP and safety management system, and the mechanisms for investigation and taking corrective action in case of non-compliance. The procedures shall cover the operator's system for reporting major accidents or 'near misses', particularly those involving failure of protective measures, and their investigation and follow-up on the basis of lessons learnt. The procedures could also include performance indicators such as safety performance indicators (SPIs) and/or other relevant indicators;

(vii) audit and review — adoption and implementation of procedures for periodic systematic assessment of the MAPP and the effectiveness and suitability of the safety management system; the documented review of performance of the policy and safety management system and its updating by senior management, including consideration and incorporation of necessary changes indicated by the audit and review.

#### ANNEX IV

# Data and information to be included in the emergency plans referred to in Article 12

- 1. Internal emergency plans:
- (a) Names or positions of persons authorised to set emergency procedures in motion and the person in charge of and coordinating the on-site mitigatory action;
- (b) Name or position of the person with responsibility for liaising with the authority responsible for the external emergency plan;
- (c) For foreseeable conditions or events which could be significant in bringing about a major accident, a description of the action which should be taken to control the conditions or events and to limit their consequences, including a description of the safety equipment and the resources available;
- (d) Arrangements for limiting the risks to persons on site including how warnings are to be given and the actions persons are expected to take on receipt of a warning;
- (e) Arrangements for providing early warning of the incident to the authority responsible for setting the external emergency plan in motion, the type of information which should be contained in an initial warning and the arrangements for the provision of more detailed information as it becomes available;
- (f) where necessary, arrangements for training staff in the duties they will be expected to perform and, as appropriate, coordinating this with off-site emergency services;
- (g) Arrangements for providing assistance with off-site mitigatory action.
- 2. External emergency plans:
- (a) Names or positions of persons authorised to set emergency procedures in motion and of persons authorised to take charge of and coordinate off-site action;
- (b) Arrangements for receiving early warning of incidents, and alert and call-out procedures;
- (c) Arrangements for coordinating resources necessary to implement the external emergency plan;

- (d) Arrangements for providing assistance with on-site mitigatory action;
- (e) Arrangements for off-site mitigatory action, including responses to major-accident scenarios as set out in the safety report and considering possible domino effects, including those having an impact on the environment;
- (f) Arrangements for providing the public and any neighbouring establishments or sites that fall outside the scope of this Directive in accordance with Article 9 with specific information relating to the accident and the behaviour which should be adopted;
- (g) Arrangements for the provision of information to the emergency services of other Member States in the event of a major accident with possible transboundary consequences.

#### ANNEX V

# Items of information to the public as provided for in Article 14(1) and in point (a) of Article 14(2)

#### PART 1

For all establishments covered by this Directive:

- 1. Name or trade name of the operator and the full address of the establishment concerned.
- 2. Confirmation that the establishment is subject to the regulations and/or administrative provisions implementing this Directive and that the notification referred to in Article 7(1) or the safety report referred to in Article 10(1) has been submitted to the competent authority.
- 3. An explanation in simple terms of the activity or activities undertaken at the establishment.
- 4. The common names or, in the case of dangerous substances covered by Part 1 of Annex I, the generic names or the hazard classification of the relevant dangerous substances involved at the establishment which could give rise to a major accident, with an indication of their principal dangerous characteristics in simple terms.
- 5. General information about how the public concerned will be warned, if necessary; adequate information about the appropriate behaviour in the event of a major accident or indication of where that information can be accessed electronically.
- 6. The date of the last site visit in accordance with Article 20(4), or reference to where that information can be accessed electronically; information on where more detailed information about the inspection and the related inspection plan can be obtained upon request, subject to the requirements of Article 22.
- 7. Details of where further relevant information can be obtained, subject to the requirements of Article 22.

#### PART 2

For upper-tier establishments, in addition to the information referred to in Part 1 of this Annex:

- 1. General information relating to the nature of the major-accident hazards, including their potential effects on human health and the environment and summary details of the main types of major-accident scenarios and the control measures to address them.
- 2. Confirmation that the operator is required to make adequate arrangements on site, in particular liaison with the emergency services, to deal with major accidents and to minimise their effects.
- 3. Appropriate information from the external emergency plan drawn up to cope with any off-site effects from an accident. This should include advice to cooperate with any instructions or requests from the emergency services at the time of an accident.
- 4. Where applicable, indication whether the establishment is close to the territory of another Member State with the possibility of a major accident with transboundary effects under the Convention of the United Nations Economic Commission for Europe on the Transboundary Effects of Industrial Accidents.

## ANNEX VI

# Criteria for the notification of a major accident to the Commission as provided for in Article 18(1)

I.

Any major accident covered by paragraph 1 or having at least one of the consequences described in paragraphs 2, 3, 4 and 5 must be notified to the Commission.

1. Dangerous substances involved

Any fire or explosion or accidental discharge of a dangerous substance involving a quantity of at least 5 % of the qualifying quantity laid down in Column 3 of Part 1 or in Column 3 of Part 2 of Annex I.

- 2. Injury to persons and damage to real estate:
- (a) a death;
- (b) six persons injured within the establishment and hospitalised for at least 24 hours;
- (c) one person outside the establishment hospitalised for at least 24 hours;
- (d) dwelling(s) outside the establishment damaged and unusable as a result of the accident;
- (e) the evacuation or confinement of persons for more than 2 hours (persons  $\times$  hours): the value is at least 500;
- (f) the interruption of drinking water, electricity, gas or telephone services for more than 2 hours (persons × hours): the value is at least 1 000.
- 3. Immediate damage to the environment:
- (a) permanent or long-term damage to terrestrial habitats:

- (i) 0,5 ha or more of a habitat of environmental or conservation importance protected by legislation;
- (ii) 10 or more hectares of more widespread habitat, including agricultural land;
- (b) significant or long-term damage to freshwater and marine habitats:
  - (i) 10 km or more of river or canal;
  - (ii) 1 ha or more of a lake or pond;
  - (iii) 2 ha or more of delta;
  - (iv) 2 ha or more of a coastline or open sea;
- (c) significant damage to an aquifer or underground water:

1 ha or more.

- 4. Damage to property:
- (a) damage to property in the establishment: at least EUR 2 000 000;
- (b) damage to property outside the establishment: at least EUR 500 000.
- 5. Cross-border damage

Any major accident directly involving a dangerous substance giving rise to effects outside the territory of the Member State concerned.

II. Accidents or 'near misses' which Member States regard as being of particular technical interest for preventing major accidents and limiting their consequences and which do not meet the quantitative criteria above should be notified to the Commission.

## ANNEX VII

## **CORRELATION TABLE**

Directive 96/82/EC	This Directive
Article 1	Article 1
Article 2(1), first subparagraph	Article 2(1) and Article 3(2) and (3)
Article 2(1), second subparagraph	Article 3(12)
Article 2(2)	_
Article 3(1)	Article 3(1)
Article 3(2)	Article 3(8)
Article 3(3)	Article 3(9)
Article 3(4)	Article 3(10)
Article 3(5)	Article 3(13)

A : 1 2(6)	A (: 1, 2(14)
Article 3(6)	Article 3(14)
Article 3(7)	Article 3(15)
Article 3(8)	Article 3(16)
_	Article 3(2) to (7), Article 3(11) and (12) and Article 3(17) to (19)
Article 4	Article 2(2), first subparagraph, points (a) to (f) and (h)
_	Article 2(2), first subparagraph, point (g) and Article 2(2), second subparagraph
_	Article 4
Article 5	Article 5
Article 6(1)	Article 7(2)
Article 6(2), points (a) to (g)	Article 7(1), points (a) to (g)
Article 6(3)	Article 7(3)
Article 6(4)	Article 7(4), points (a) to (c)
_	Article 7(4), point (d)
Article 7(1)	Article 8(1)
_	Article 8(2), points (a) and (b)
Article 7(1a)	Article 8(2), point (a)
Article 7(2)	Article 8(5)
Article 7(3)	_
_	Article 8(3)
_	Article 8(4)
_	Article 8(5)
Article 8(1) and (2)	Article 9(1) and (2)
_	Article 9(2)
Article 9(1)	Article 10(1)
Article 9(2), first subparagraph	Article 10(2)
Article 9(2), second subparagraph	_
Article 9(3)	Article 10(3)
Article 9(4)	Article 10(6)
Article 9(5)	Article 10(5)
Article 9(6)	<u> </u>
_	Article 10(4)
Article 10	Article 11

Article 11(1), points (a) and (b)	Article 12(1), points (a) and (b) and Article 12(2)
Article 11(1), point (c)	Article 12(1), point (c)
Article 11(2)	Article 12(3)
Article 11(3)	Article 12(4) and (5)
Article 11(4)	Article 12(6), first subparagraph
Article 11(4a)	Article 12(6), second subparagraph
Article 11(5)	Article 12(7)
Article 11(6)	Article 12(8)
Article 12(1), first subparagraph	Article 13(1)
Article 12(1), second subparagraph	Article 13(2)
Article 12(1a)	_
Article 12(2)	Article 13(3)
_	Article 13(4)
Article 13(1), first subparagraph	Article 14(2), first subparagraph, point (a), and Article 14(2), second subparagraph, second sentence
Article 13(1), second subparagraph, first and third sentences	Article 14(2), second subparagraph, last sentence
Article 13(1), second subparagraph, second sentence	Article 14(1)
Article 13(1), third subparagraph	Article 14(2), second subparagraph, first sentence
_	Article 14(1), second sentence
Article 13(2)	Article 14(3)
Article 13(3)	Article 14(4)
Article 13(4), first sentence	Article 14(2), point (b)
Article 13(4), second and third sentences	Article 22(3), first and second subparagraphs
Article 13(5)	Article 15(1)
Article 13(6)	Article 14(2), point (c)
_	Article 15(2) to (7)
Article 14(1)	Article 16
Article 14(2)	Article 17
Article 15(1), points (a) to (d)	Article 18(1), points (a) to (d) and Article 18(2), first subparagraph
Article 15(2), first subparagraph	Article 18(1), point (e) and Article 18(3)
Article 15(2), second subparagraph	Article 18(2), second subparagraph

Article 15(3)	Article 18(4)
Article 16	Article 6(1)
_	Article 6(2) and (3)
Article 17	Article 19
Article 18(1)	Article 20(1) and (2)
Article 18(2), point (a)	Article 20(4)
Article 18(2), points (b) and (c)	Article 20(7)
Article 18(3)	Article 20(11)
_	Article 20(3),(5),(6), (8), (9) and (10)
Article 19(1)	Article 21(1)
Article 19(1a), first subparagraph	Article 21(3), first subparagraph
Article 19(1a), second subparagraph	Article 21(3), second subparagraph
Article 19(2), first subparagraph	Article 21(4)
Article 19(2), second subparagraph	Article 21(6)
Article 19(3)	Article 21(7)
_	Article 21(5)
Article 19(4)	Article 21(2)
Article 20(1), first subparagraph	Article 22(1)
Article 20(1), second subparagraph	Article 22(2)
Article 20(2)	_
_	Article 23
_	Article 24
Article 21(1)	Article 25
Article 21(2)	Article 21(5)
Article 22	Article 27
Article 23	Article 32
Article 24	Article 31
Article 25	Article 33
Article 26	Article 34
_	Article 26 and Articles 28 to 30
_	Annex I, introductory paragraphs
Annex I, Introduction, paragraphs 1 to 5	Annex I, notes to Annex I, notes 1 to 3
Annex I, Introduction, paragraphs 6 and 7	
Annex I, Part 1	Annex I, Part 2
	<u> </u>

Annex I, Part 1, notes to Part 1, Notes 1 to 6	Annex I, notes to Annex I, notes 13 to 18
Annex I Part 1, notes to Part 1, Note 7	Annex I, notes to Annex I, note 20
_	Annex I, notes to Annex I, note 7
Annex I, Part 2	Annex I, Part 1
Annex I, Part 2, notes to Part 2, note 1	Annex I, notes to Annex I, notes 1, 5 and 6
Annex I, Part 2, notes to Part 2, note 2	Annex I, notes to Annex I, notes 8 to 10
Annex I, Part 2, notes to Part 2, Note 3	Annex I, notes to Annex I, notes 11.1, 11.2 and 12
Annex I, Part 2, notes to Part 2, Note 4	Annex I, notes to Annex I, Note 4
Annex II, Parts I to III	Annex II, points (1) to(3)
Annex II, Part IV, point A	Annex II, point 4(a)
_	Annex II, point 4(a) items (i) to (iii)
Annex II, Part IV, point B	Annex II, point 4(b)
_	Annex II, point 4(c)
Annex II, Part IV, point C	Annex II, point 4(d)
Annex II, Part V, point A to C	Annex II, point 5(a) to (c)
Annex II, Part V, point D	_
_	Annex II, point 5(d)
Annex III, introductory paragraph and points (a) and (b)	Annex III, introductory paragraph and point (a) Article 8(1) and (5)
Annex III, point (c), items (i) to(iv)	Annex III, point (b), items (i) to (iv)
Annex III, point (c), items (v) to(vii)	Annex III, point (b), items (v) to (vii)
Annex IV	Annex IV
Annex V, point 1	Annex V, Part 1, point 1
Annex V, point 2	_
Annex V, points 3 to 5	Annex V, Part 1, points 2 to 4
Annex V, point 6	Annex V, Part 2, point 1
Annex V, points 7 and 8	Annex V, Part 1, point 5
_	Annex V, Part 1, point 6
Annex V, points 9 and 10	Annex V, Part 2, points 2 and 3
Annex V, point 11	Annex V, Part 1, point 7
_	Annex V, Part 2, point 4
Annex VI, I	Annex VI, Part I
Annex VI, II	Annex VI, Part II

- (1) More guidance on waiving of the test can be found in the A.14 method description, see Commission 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) (OJ L 142, 31.5.2008, p. 1).
- (2) OJ L 147, 9.6.1975, p. 40.
- (3) 15,75 % nitrogen content by weight as a result of ammonium nitrate corresponds to 45 % ammonium nitrate.
- (4) 24,5 % nitrogen content by weight as a result of ammonium nitrate corresponds to 70 % ammonium nitrate.
- (5) OJ L 304, 21.11.2003, p. 1.
- (6) 28 % nitrogen content by weight as a result of ammonium nitrate corresponds to 80 % ammonium nitrate