



Scope of the Convention and further development of Annex I

UNECE Convention on the Transboundary Effects of Industrial Accidents

Assistance Programme





Scope of the Convention

- Article 2 - Scope
- Prevention of, preparedness for and response to industrial accidents capable of causing transboundary effects, including the effects of such accidents caused by natural disasters
- International cooperation concerning mutual assistance, research and development, exchange of information and exchange of technology in the area of prevention of, preparedness for and response to industrial accidents.





Scope of the Convention

This Convention shall not apply to:

- (a) Nuclear accidents or radiological emergencies;
- (b) Accidents at military installations;
- (c) Dam failures, with the exception of the effects of industrial accidents caused by such failures;
- (d) Land-based transport accidents with the exception of:
 - (i) Emergency response to such accidents;
 - (ii) Transportation on the site of the hazardous activity;





Scope of the Convention

This Convention shall not apply to:

- (e) Accidental release of genetically modified organisms;
- (f) Accidents caused by activities in the marine environment, including seabed exploration or exploitation;
- (g) Spills of oil or other harmful substances at sea.





Scope of the Convention

- Definitions could be subject of interpretation
 - Hazardous activity
 - present or may be present
 - capable of causing transboundary effects
 - serious effects
 - military installations
- All Parties must understand their peers!





Приложение I (Часть I)

Part I.

Categories of substances and preparations not specifically named in Part II

<i>Category</i>	<i>Threshold quantity (metric tons)</i>
1. Flammable	50 000
2a. Highly flammable	200
2b. Highly flammable	50 000
3. Extremely flammable	50
4. Toxic	200
5. Very toxic	20
6. Oxidizing	200
7a. Explosive, where the substance, preparation or article falls under Division 1.4 of the GHS criteria	200
7b. Explosive, where the substance, preparation or article falls under Division 1.1, 1.2, 1.3, 1.5 or 1.6 of the GHS criteria	50
8a. Dangerous for the environment "Toxic to aquatic organisms"	500
8b. Dangerous to the environment "Very toxic to aquatic organisms"	200



Приложение I (Часть II)

Part II.

Named substances

<i>Substance</i>	<i>Threshold quantity (metric tons)</i>	
1a. Ammonium nitrate	10000	
1b. Ammonium nitrate	5000	
1c. Ammonium nitrate	2500	
1d. Ammonium nitrate	50	
2a. Potassium nitrate	10000	
2b. Potassium nitrate	5000	
3. Chlorine	25	
4. Ethylene oxide		50
5. Hydrogen		50
6. Toluene diisocyanate		100
7. Sulphur trioxide	75	
8. Lead alkyls		50
9. Phosgene		0.75
10. Methyl isocyanate	0.15	
11. Liquefied extremely flammable gases (including LPG) and natural gas	200	
12. Petroleum products: gasolines and naphthas; kerosenes (including jet fuels); gas oils (including diesel fuels, home heating oils and gas oil blending streams)	25000	



Development of Annex I

- Transition to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
- Alignment with the Seveso III Directive
- Changes in the thresholds
- New Hazard Categories (Aerosols, Organic Peroxides)
- New named substances



New Annex I



Current Annex I

Toxic and very toxic

- 4. Toxic – 200 t.
- 5. Very toxic – 20 t.

Cut-off values

- Toxic

LD50 (oral, mg/kg) $25 < LD50 < 200$

LD50 (dermal, mg/kg) $50 < LD50 < 400$

LC50 (inhalation, mg/l) $0.5 < LC50 < 2$

- Very toxic

LD50 (oral, mg/kg) $LD50 < 25$

LD50 (dermal, mg/kg) $LD50 < 50$

LC50 (inhalation, mg/l) $LC50 < 0.5$



New Annex I



CONVENTION – Annex I (REVISED)	
Hazardous substances for the purposes of defining hazardous activities	Threshold quantity (metric tons)
PART I.	
Categories of substances and mixtures not specifically named in Part II	
1. ACUTE TOXIC Category 1, all exposure routes	20
2. ACUTE TOXIC	200
-- Category 2, all exposure routes	
-- Category 3, inhalation exposure route	
3. STOT SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE STOT SE Category 1	200
4. Explosives — unstable explosives or explosives, where the substance, mixture or article falls under Division 1.1, 1.2, 1.3, 1.5 or 1.6 of Chapter 2.1.2 of the GHS criteria or substances or mixtures having explosive properties according to Test series 1 of Part I of the UN Recommendations on the Transport of Dangerous Goods: Tests and criteria and do not belong to the hazard classes Organic peroxides or Self-reactive substances and mixtures	50
5. Explosives, where the substance, mixture or article falls under Division 1.4 of Chapter 2.1.2 of the GHS criteria	200
6. FLAMMABLE GASES Category 1 or 2	50
7. AEROSOLS Category 1 or 2, containing flammable gases Category 1 or 2 or flammable liquids Category 1 according criteria in Chapter 2.3.2 of GHS	500
8. AEROSOLS Category 1 or 2, not containing flammable gases Category 1 or 2 nor flammable liquids Category 1	50000
9. OXIDISING GASES, category 1	200

New Annex I



CONVENTION – Annex I (REVISED)	
Hazardous substances for the purposes of defining hazardous activities PART I.	Threshold quantity (metric tons)
Categories of substances and mixtures not specifically named in Part II	
9. OXIDISING GASES, category 1	200
10. FLAMMABLE LIQUIDS - 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 ≤ 60 °C, maintained at a temperature above their boiling point	50
11. 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 ≤ 60 °C where particular processing conditions, such as high pressure or high temperature, may create major-accident hazards	200
12. FLAMMABLE LIQUIDS Categories 2 or 3 not covered by 10 and 11	50000
13. SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES Self-reactive substances and mixtures, Type A or B or organic peroxides, Type A or B	50
14. 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	200
15. PYROPHORIC LIQUIDS AND SOLIDS, Category 1	200



New Annex I



CONVENTION – Annex I (REVISED)	
Hazardous substances for the purposes of defining hazardous activities PART I.	Threshold quantity (metric tons)
Categories of substances and mixtures not specifically named in Part II	
16. OXIDISING LIQUIDS AND SOLIDS, Category 1, 2 or 3	200
17. HAZARDOUS TO THE AQUATIC ENVIRONMENT, Category ACUTE 1 or CHRONIC 1	200
18. HAZARDOUS TO THE AQUATIC ENVIRONMENT, Category CHRONIC 2	500
19. SUBSTANCES AND MIXTURES WHICH REACT VIOLENTLY WITH WATER, such as acetyl chloride, alkali metals, titanium tetrachloride	500
20. SUBSTANCES AND MIXTURES WHICH IN CONTACT WITH WATER EMIT FLAMMABLE GASES, Category 1	500
21. SUBSTANCES AND MIXTURES WHICH IN CONTACT WITH WATER LIBERATE TOXIC GAS (Substances and mixtures which in contact with water or damp air, evolve gases classified for acute toxicity in category 1, 2 or 3 in potentially dangerous amounts, such as aluminium phosphide, phosphorus pentasulphide)	200



New Annex I



CONVENTION – Annex I (REVISED) Hazardous substances for the purposes of defining hazardous activities PART II Named substances	Threshold quantity (metric tons)
1a. Ammonium nitrate	10000
1b. Ammonium nitrate	5000
1c. Ammonium nitrate	2500
1d. Ammonium nitrate	50
2a. Potassium nitrate	10000
2b. Potassium nitrate	5000
3. Arsenic pentoxide, arsenic (V) acid and/or salts	2
4. Arsenic trioxide, arsenious (III) acid and/or salts	0.1
5. Bromine	100
6. Chlorine	25
7. Nickel compounds in inhalable powder form: nickel monoxide, nickel dioxide, nickel sulphide, trinickel disulphide, dinickel trioxide	1
8. Ethyleneimine	20
9. Fluorine	20
10. Formaldehyde (concentration ≥ 90 %)	50
11. Hydrogen	50
12. Hydrogen chloride (liquefied gas)	250
13. Lead alkyls	50
14. Liquefied extremely flammable gases, Category 1 or 2 (including liquefied petroleum gas) and natural gas	200
15. Acetylene	50

New Annex I



CONVENTION – Annex I (REVISED) Hazardous substances for the purposes of defining hazardous activities PART II Named substances	Threshold quantity (metric tons)
16. Ethylene oxide	50
17. Propylene oxide	50
18. Methanol	5000
19. 4, 4'-Methylene bis (2-chloraniline) and/or salts, in powder form	0.01
20. Methyl isocyanate (2,4 -Toluene diisocyanate and 2,6 -Toluene diisocyanate)	0.15
21. Oxygen	2000
22. Toluene diisocyanate	100
23. Carbonyl dichloride (phosgene)	0.75
24. Arsine (arsenic trihydride)	1
25. Phosphine (phosphorus trihydride)	1
26. Sulphur dichloride	1
27. Sulphur trioxide	75
28. Polychlorodibenzofurans and polychlorodibenzodioxins (including tetrachlorodibenzodioxin (TCDD)), calculated in TCDD equivalent	0.001



New Annex I



CONVENTION – Annex I (REVISED) Hazardous substances for the purposes of defining hazardous activities PART II Named substances	Threshold quantity (metric tons)
30. 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)	25000
31. Anhydrous ammonia	200
32. Boron trifluoride	20
33. Hydrogen sulphide	20
34. Piperidine	200
35. Bis(2-dimethylaminoethyl) (methyl)amin	200
36. 3-(2-Ethylhexyloxy)propylamin	200
37. Mixtures of sodium hypochlorite classified as Aquatic Acute Category 1 [H400] containing < than 5% active chlorine and not classified under any of the other hazard categories in Part 1 of annex I.	500
38. Propylamine	2000
39. Tert-butyl acrylate	500
40. 2-Methyl-3-butenenitrile	2000
41. Tetrahydro-3,5-dimethyl-1,3,5,-thiadiazine-2-thione (dazomet)	200
42. Methyl acrylate	2000
43. 3-Methylpyridine	2000
44. 1-Bromo-3-chloropropane	2000





Thank you for your attention!

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