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## Economic Commission for Europe

Conference of the Parties to the Convention on the Transboundary Effects of Industrial Accidents

### Working Group on the Development of the Convention

**Third meeting**
Geneva, 3 and 4 September 2013

# Report of the third meeting

## Introduction

1. The third meeting of the Working Group on the Development of the Convention (WGD), a subsidiary body of the Conference of the Parties (CoP) to the UNECE Convention on the Transboundary Effects of Industrial Accidents, was held in Geneva from 3-4 September 2013. Mr. Cristiano Piacente (Italy) chaired the meeting.

2. The meeting was attended by representatives from the following UNECE member countries; Belarus, Georgia, Germany, Italy, Kyrgyzstan, Lithuania, Netherlands, Norway, Poland, Republic of Moldova, Serbia, Slovenia, Sweden, Switzerland, United Kingdom. Representatives of the European Union and of the Federation of European Aerosol Associations and Thyssen Krupp Steel Europe AG also attended the meeting.

3. Representatives of the UNECE Transport Division, Dangerous Goods and Special Cargoes Section, the UNECE Aarhus Convention secretariat and the UNECE Water Convention secretariat as well as a consultant engaged by the UNECE Industrial Accidents Convention secretariat attended the meeting and delivered presentations on possible options for amending the Convention, at the request of the Chair.

## I. Opening of the meeting and adoption of the agenda

4. The Chair opened the third meeting of the WGD by welcoming participants and delivering some introductory remarks. He explained that in follow-up to a consultation with the Chair of the Bureau of the Convention, it had been agreed that the meeting of the WGD would be open to Parties and Observers.

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5. The Chair introduced the agenda for the meeting as contained in document ECE/CP.TEIA/WG.1/2013/1. The meeting adopted the agenda without modifications.

6. The Chair recalled the decision of the CoP at its seventh meeting in November 2012, which had requested the WGD to draft a revised Annex I, to bring it into line with the United Nations Globally Harmonized System of Classification and Labelling of Chemicals and to maintain consistency with the corresponding European Union legislation (Seveso III Directive). The meeting had also requested the WGD to consider the possible amendment of the Convention to address a number of other provisions and issues.

7. The Chair also recalled the establishment of two small groups by the Bureau during its last meeting in January 2013, which worked via email on proposed changes for the revision of Annex I and on proposed amendments to the Convention, respectively. The two small groups had provided their inputs to the secretariat for incorporation in the background paper on possible amendments to the Convention (ECE/CP.TEIA/WG.1/2013/3).

# II. Review of Annex I to the Convention

8. The Chair invited the representative of the UNECE Transport Division to present the Globally Harmonized System of Classification and Labelling of Chemicals and its relevance to Annex I. The Chair also invited the secretariat to present the proposed changes to Annex I, as contained in the annex of the background paper (ECE/CP.TEIA/WG.1/2013/3), revised by the secretariat to reflect proposed changes to Annex I, parts 1 and 2.

9. The secretariat indicated that all presentations delivered during the meeting would be posted on the Convention's website (see http://www.unece.org/env/teia/mtgs/wgdsept2013.html).

10. Following the presentations, WGD members discussed the proposed amendments and agreed on the following way forward for Annex I, parts 1 and 2:

(a) Based on the background paper (ECE/CP.TEIA/WG.1/2013/3), developed by the secretariat with inputs from members of the small group in order to align Annex I with the United Nations Globally Harmonized System of Classification and Labelling of Chemicals and to maintain consistency with corresponding EU legislation, the meeting agreed to recommend the proposed amendments to Annex I, parts 1 and 2, with minor adjustments proposed by some delegations. The majority of the proposed amendments to Annex I, Parts 1 and 2 were of an editorial nature.

(b) Switzerland indicated the need to update the introduction to Annex I and the EU delegation agreed to provide a revised text.

(c) The EU delegation proposed the inclusion of some additional substances in part 2: ethyleneimine, acetylene, propylene oxide and tetrahydro-3,5-dimethyl-1,3,5,-thiadiazine-2-thione (diazomet) to ensure consistency with the Seveso III Directive and application of the specific thresholds provided for these substances, even in case of future changes in their general EU/GHS classification.

(d) Notingthe difficulties that some countries may experience in implementing some of the revisions to Annex I, the meeting recommended that, if needed, countries could request assistance/guidance through the Convention's Assistance Programme to address these difficulties.

(e) The revised Annex I is attached to this report and includes proposed modifications to the version contained in the background paper, as discussed during the

meeting, with new text reflected in bold and deleted text struck out. This document is expected to serve as the basis for further discussion and agreement at the fourth meeting of the WGD in April 2014.

(f) For ease of reference, the secretariat has also attached a comparative table reflecting the original text of Annex I and all adjustments proposed to Annex I, to date.

(g) The WGD will be able to review the revised draft of Annex I once again at the fourth meeting of the WGD and make any additional modifications before submitting it to CoP-8.

# III. Proposed amendment of the Convention

11. The Chair recalled that the CoP at its seventh meeting, wishing to minimize the frequency of amendments to the Convention, had also requested the WGD to consider possible amendments to the Convention to address the following provisions and issues:

(a) Revised and additional definitions (art. 1);

(b) Revised scope (art. 2);

(c) Strengthened public participation (art. 9);

(d) Revised scope of mutual assistance (art. 12);

(e) Clarified frequency of meetings (art. 18, para. 1);

(f) Clarified or strengthened reporting obligations (art. 23);

(g) Accession by other Member States of the United Nations (art. 29);

(h) Application of amendments to new Parties (art. 29);

(i) Provisions on land-use planning;

(j) Provisions on the review of compliance;

(k) Governance structures under the Convention

(l) Derogation (added upon request of the Bureau at its meeting in January 2013).

12. The Chair explained that it was anticipated that the CoP would prioritize issues at its eighth meeting with a view to adopting amendments at its ninth meeting in 2016.

13. The Chair introduced the section of the background paper (ECE/CP.TEIA/WG.1/2013/3) on amendments to the Convention, which had beencompiled by the secretariat and incorporated inputs from members of the small group assigned to work on the amendments to the Convention. 14. The Chair explained that for some of the above-mentioned issues, presentations would be delivered to inform and trigger discussion during the meeting:

(a) A representative of the UNECE Water Convention delivered two presentations, one on the issue of accession by other Member States and another on the issue of compliance.

(b) A representative of the UNECE Aarhus Convention delivered a presentation on strengthening public participation.

(c) The secretariat's consultant also delivered two presentations, one on the issue of strengthening public participation, and another on the issue of land-use planning.

15. The Chair opened the floor for an informal brainstorming after the introduction of each of the possible amendments and explained that the discussion would not reflect official positions and would not lead to the negotiation of text. He requested participants to provide their views on each of the possible amendments and stated that the discussion should take into account the pros and cons as well as potential impacts of the possible amendments, as requested by the CoP.

16. The representative of the EU indicated that discussions within the EU on possible amendments to the Convention were still ongoing and there was therefore no final position on these issues yet. To facilitate the informal exchange of views, the representative of the EU proposed that WGD members participate in the discussion on this item as experts rather than as government representatives. There was no objection to this proposal from participants.

17. Following the presentations, WGD members discussed the possible amendments to the Convention.

18. The Chair summarized the following proposed way forward:

(a) Key points emerging from discussions on possible amendments during the third meeting of the WGD would be incorporated by the secretariat in a revised version of the background paper. This document would be made available at the next meeting of the WGD as an informal document in English and Russian;

(b) The secretariat's consultant would develop draft inputs on the issue of strengthened public participation and its relevance to the Convention as well as some text on crosscutting issues, such as land-use planning, compliance and trans-boundary considerations. His inputs would be appended to the revised background paper.

(c) The revised background paper will be circulated to the small group for comments during the inter-sessional period between the third and the fourth meetings of the WGD.

(d) The document should provide the basis for discussion of the amendments to the Convention at the next WGD meeting in April 2014, with a view to providing an evaluation of the possible amendments to the Convention for CoP-8.

# IV. Organization of future work

19. In addition to agreements reached on Annex I and on the way forward regarding possible amendments to the Convention, the WGD agreed that the next meeting of the WDG would take place in Geneva on 28-29 April 2014. The secretariat has already booked a meeting room in the Palais des Nations for these dates.

# V. Closing of the meeting

20. The Chair thanked participants for their valuable contributions and support. He also expressed his satisfaction with the progress made during the third meeting of the WGD, in particular with regard to Annex I, as well as with the proposed amendments to the Convention. The Chair then closed the meeting.

# Annex I

## Proposed revision of annex I to the Convention

## Hagzardous substances for the purposes of defining hazardous activities[1]

The quantities given below relate to each activity or group of activities.

Where a substance or preparation named in Part II also falls within one or more categoriesin Part I, the threshold quantity given in Part II shall be used.

For the identification of hazardous activities, Parties shall take into consideration the actual or anticipated hazardous properties and/or quantities of all hazardous substances present or of hazardous substances which it is reasonable to foresee may be generated during loss of control of an activity, including storage activities, within a hazardous activity. For the identification of hazardous activities, Parties shall take into consideration the foreseeable possibility of aggravation of the hazards involved and the quantities of the hazardous substances and their proximity, whether under the charge of one or more operators.

Part I.

**Categories of substances and mixtures not specifically named in Part II**

| | *Categoryin accordance with the United Nations Globally Harmonized System (GHS) of Classification and Labelling of Chemicals* | *Threshold quantity (metric tons)* |
|---|---|---|
| 1. | Acute toxic, Category 1, all exposure routes[2] | 20 |
| 2. | Acute toxic:<br>Category 2, all exposure routes[3]<br>Category 3, inhalation exposure route[4] | 200 |
| 3. | Specific Target Organ Toxicity (STOT) — Single Exposure (SE) STOT, Category 1[5] | 200 |
| 4. | ~~Explosive~~ **Explosives** — unstable ~~explosive~~ **explosives** or ~~explosive~~ **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**[6, 7] | 50 |
| ~~[~~5. | ~~Explosive~~ **Explosives**, where the substance, **mixture** ~~preparation~~ or article falls under Division 1.4 of Chapter 2.1.2 of the GHS criteria[6-7,8] ~~]~~ | 200 |
| 6. | Flammable gases, Category 1 or 2[**9** ~~8~~] | ~~20~~ **50** |
| 7. | ~~Flammable~~ Aerosols, Category 1 or 2, containing flammable gases Category 1 or 2 or flammable liquids Category 1 according to the criteria in Chapter 2.3.2 of GHS[**10** ~~9~~] | 500 ***(net)*** |
| 8. | ~~Flammable~~ Aerosols, Category 1 or 2, not containing flammable gases Category 1 or 2 or flammable liquids Category 1[~~10~~ **11**] | 50 000 ***(net)*** |
| 9. | Oxidizing gases, category 1[~~11~~ **12**] | 200 |

| *Categoryin accordance with the United Nations Globally Harmonized System (GHS) of Classification and Labelling of Chemicals* | | *Threshold quantity (metric tons)* |
|---|---|---|
| 10. | Flammmable liquids:<br>Flammable liquids, Category 1, or<br>Flammable liquids, Category 2 or 3, maintained at a temperature above their boiling point~~12~~ **13**, or<br>Other liquids with a flash point ≤ 60 °C, maintained at a temperature above their boiling point~~13~~ **14** | 50 |
| 11. | Flammable liquids:<br>Flammable liquids, Category 2 or 3, where particular processing conditions, such as high pressure or high temperature, may create major-accident hazards~~14~~ **15**, or<br>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~~15~~ **16** | 50 000 |
| 13. | Self-reactive substances and mixtures and organic peroxides:<br>Self-reactive substances and mixtures, Type A or B or<br>Organic peroxides, Type A or B~~16~~ **17** | 50 |
| 14. | Self-reactive substances and mixtures and organic peroxides:<br>Self-reactive substances and mixtures, Type C, D, E or F or<br>Organic peroxides, Type C, D, E, or F~~17~~ **18** | 200 |
| 15. | Pyrophoric liquids and solids, Category 1 | 200 |
| 16. | Oxidizing liquids and solids, Category 1, 2 or 3 | 200 |
| 17. | Hazardous to the aquatic environment, Category Acute 1 or Chronic 1~~18~~ **19** | 200 |
| 18. | Hazardous to the aquatic environment, Category Chronic 2**20** ~~19~~ | 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~~20~~ **21** | 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 |

Part II.
**Named substances**

| *Substance* | | *Threshold quantity (metric tons)* |
|---|---|---|
| 1a. | Ammonium nitrate~~21~~ **22** | 10 000 |
| 1b. | Ammonium nitrate~~22~~ **23** | 5 000 |
| 1c. | Ammonium nitrate~~23~~ **24** | 2 500 |
| 1d. | Ammonium nitrate~~24~~ **25** | 50 |
| 2a. | Potassium nitrate~~25~~ **26** | 10 000 |

| *Substance* | | *Threshold quantity (metric tons)* |
|---|---|---|
| 2b. | Potassium nitrate~~26~~ **27** | 5 000 |
| 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.** | ~~8.~~Fluorine | 20 |
| **10.** | ~~9.~~Formaldehyde (concentration ≥ 90 %) | ~~20~~ **50** |
| **11.** | ~~10.~~ Hydrogen | 50 |
| **12.** | ~~11.~~ Hydrogen chloride (liquefied gas) | 250 |
| **13.** | ~~12.~~ Lead alkyls | 50 |
| **14.** | ~~13.~~ Liquefied extremely flammable gases, Category 1 or 2 (including ~~liquid~~ **liquefied** petroleum gas) and natural gas~~27~~ **28** | 200 |
| 15. | **Acetylene** | **50** |
| **16.** | ~~14.~~ Ethylene oxide | 50 |
| 17. | **Propylene oxide** | **50** |
| **18.** | ~~15.~~ Methanol | 5 000 |
| **19.** | ~~16.~~ 4, 4′-Methylene bis (2-chloraniline) and/or salts, in powder form | 0.01 |
| **20.** | ~~17.~~ Methyl isocyanate | 0.15 |
| **21.** | ~~18.~~ Oxygen | 2 000 |
| **22.** | ~~19.~~ Toluene diisocyanate **(2,4 -Toluene diisocyanate and 2,6 -Toluene diisocyanate)** | 100 |
| **23.** | ~~20.~~ Carbonyl dichloride (phosgene) | 0.75 |
| **24.** | ~~21.~~ Arsine (arsenic trihydride) | 1 |
| **25.** | ~~22.~~ Phosphine (phosphorus trihydride) | 1 |
| **26.** | ~~23.~~ Sulphur dichloride | 1 |
| **27.** | ~~24.~~ Sulphur trioxide | 75 |
| **28.** | ~~25.~~ Polychlorodibenzofurans and polychlorodibenzodioxins (including tetrachlorodibenzodioxin (TCDD)), calculated in TCDD equivalent~~28~~ **29** | 0.001 |
| **29.** | ~~26.~~ The following carcinogens or the mixtures containing the following carcinogens at concentrations above 5% by weight:<br>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, Hexamethylphosphorictriamide, Hydrazine, 2- Naphthylamine and/or salts, 4-Nitrodiphenyl, and 1,3 Propanesultone | 2 |
| **30.** | ~~27.~~ Petroleum products and alternative fuels: | 25 000 |

| *Substance* | *Threshold quantity (metric tons)* |
|---|---|
| (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) | |
| **31.** ~~28.~~ Anhydrous ammonia | 200 |
| **32.** ~~29.~~ Boron trifluoride | 20 |
| **33.** ~~30.~~ Hydrogen sulphide | 20 |
| **34.** ~~31.~~ Piperidine | 200 |
| **35.** ~~32.~~ Bis(2-dimethylaminoethyl) (methyl)amin | 200 |
| **36.** ~~33.~~ 3-(2-Ethylhexyloxy)propylamin | 200 |
| **37.** ~~34.~~ 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.[~~29~~ **30**] | 500 |
| **38.** ~~35.~~ Propylamine[~~30~~ **31**] | 2 000 |
| **39.** ~~36.~~ Tert-butyl acrylate[~~30~~ **31**] | 500 |
| **40.** ~~37.~~ 2-Methyl-3-butenenitrile[~~30~~ **31**] | 2 000 |
| 41. **Tetrahydro-3,5-dimethyl-1,3,5,-thiadiazine-2-thione (dazomet)**[31] | **200** |
| **42.** ~~38.~~ Methyl acrylate[~~30~~ **31**] | 2 000 |
| **43.** ~~39.~~ 3-Methylpyridine[~~30~~ **31**] | 2 000 |
| **44.** ~~40.~~ 1-Bromo-3-chloropropane[~~30~~ **31**] | 2 000 |

*Notes*

[1] Criteria according the United Nations Globally Harmonized System (GHS) of Classification and Labelling of Chemicals (ST/SG/AC.10/30/Rev.4). Parties should use ~~the~~ **these** ~~following~~ criteria when classifying substances or ~~preparations~~ **mixtures** for the purposes of Part I of this annex, unless other legally binding criteria have been adopted in the national legislation. Mixtures ~~and preparations~~ shall be treated in the same way as the pure substance unless they no longer exhibit equivalent properties.

[2] According to the criteria in chapters 3.1.2 and 3.1.3 of GHS.

[3] According to the criteria in chapters 3.1.2 and 3.1.3 of GHS.

[4] Substances that fall within acute toxic Category 3 via the oral route shall fall under entry 2 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.

[5] Substances that have produced significant toxicity in humans, or that, on the basis of evidence from studies in experimental animals can be presumed to have the potential to produce significant toxicity in humans following single exposure. Further guidance is given in figure 3.8.1. and table 3.8.1 of part 3 of GHS.

[6] ~~Explosives are classified in one of the six divisions above based on Test Series 2 to 8 in part I of the United Nations *Recommendations on the Transport of Dangerous Goods: Manual of Tests and Criteria*(Manual of Tests and Criteria). Also included in this definition are 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 this Convention. If the quantity is not known, then, for the purposes of this Convention, the whole article shall be treated as explosive.~~
Testing for explosive properties of substances and mixtures is only necessary if the screening procedure according to appendix 6, part 3, of the Manual of Tests and Criteria identifies the substance or mixture as potentially having explosive properties.

[7] The hazard class Explosives includes explosive articles. 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.

[8] **If Explosives of Division 1.4 are unpacked or repacked, they shall be assigned to the entry 4 (Explosive), unless the hazard is shown to still correspond to Division 1.4, in accordance with GHS.**

[9] According to the criteria in chapter 2.2.2 of GHS.

[10] A flammable aerosol shall be classified in one of the two categories on the basis of its components, its chemical heat of combustion and, if applicable, the results of the foam test (for foam aerosols) and the ignition distance test and enclosed space test (for spray aerosols) in accordance with the Manual of Tests and Criteria, Part III, subsections 31.4, 31.5 and 31.6.

[11] 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 the criteria in chapter 2.4.2 of GHS.

[13] According to the criteria in chapter 2.4.2 of GHS.

[14] Liquids with a flash point of > 35°C need not be classified in Category 3 if negative results have been obtained in sustained combustibility test L.2, in part III, section 32 of the 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.

[15] According to the criteria in chapter 2.4.2 of GHS.

[16] According to the criteria in chapter 2.4.2 of GHS.

[17] According to the criteria in chapters 2.8.2 and 2.15.2.2 of GHS.

[18] According to the criteria in chapters 2.8.2 and 2.15.2.2 of GHS.

[19] According to the criteria in chapter 4.1.2 of GHS.

[20] According to the criteria in chapter 4.1.2 of GHS.

[21] According to the criteria in chapter 2.12.2 of GHS.

[22] Ammonium nitrate (10,000): fertilizers capable of self-sustaining decomposition.
This applies to ammonium nitrate–based compound/composite fertilizers (compound/composite fertilizers containing ammonium nitrate with phosphate and/or potash), which are capable of self-sustaining decomposition according to the Trough Test (see 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%–24.5% by weight (15.75% and 24.5% nitrogen content by weight as a result of ammonium nitrate correspond to 45% and 70% ammonium nitrate, respectively) and which either contain not > 0.4% total combustible/organic materials or fulfil the requirements of an appropriate test of resistance to detonation (e.g., 4-inch-steel-tube test);

(b) ≤ 15.75% by weight and unrestricted combustible materials.

[23] Ammonium nitrate (5,000): fertilizer grade.
This applies to straight ammonium nitrate-based fertilizers and to ammonium nitrate-based compound/composite fertilizers in which the nitrogen content as a result of ammonium nitrate is:

(a) > 24.5% by weight, except for mixtures of straight ammonium nitrate-based fertilizers with dolomite, limestone and/or calcium carbonate with a purity of at least 90%;

(b) > 15.75% by weight for mixtures of ammonium nitrate and ammonium sulphate;

(c) > 28% (28% nitrogen content by weight as a result of straight ammonium nitrate corresponds to 80% ammonium nitrate) by weight for mixtures of ammonium nitrate-based fertilizers with dolomite, limestone and/or calcium carbonate with a purity of at least 90%;

(d) And which fulfill the requirements of an appropriate test of resistance to detonation (e.g., 4-inch-steel-tube test).

[24] Ammonium nitrate (2,500): technical grade.
This applies to:

(a) Ammonium nitrate and mixtures of ammonium nitrate in which the nitrogen content as a result of ammonium nitrate is:

(i) **between** 24.5%–28% by weight and which contain not > 0.4% combustible substances;

(ii) > 28% by weight, and which contain not > 0.2% combustible substances;

(b) Aqueous ammonium nitrate solutions in which the concentration of ammonium nitrate is > 80% by weight.

[25] Ammonium nitrate (50): "off-specs" material and fertilizers not fulfilling the requirements of an appropriate test of resistance to detonation (e.g., 4-inch-steel-tube test).

This applies to:

(a) Material rejected during the manufacturing process and to ammonium nitrate and mixtures of ammonium nitrate, straight ammonium nitrate-based fertilizers and ammonium nitrate-based compound/composite fertilizers referred to in notes ~~1~~23 and ~~13~~ **24** 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 in notes ~~22~~ **23** and ~~23~~ **24**;

(b) Fertilizers referred to in note ~~21~~ **22**(a) and note ~~22~~ **23** which do not fulfil the requirements of an appropriate test of resistance to detonation (e.g., 4-inch-steel-tube test).

[26] Potassium nitrate (10,000): composite potassium nitrate-based fertilizers (in prilled/granular form) which have the same properties as pure potassium nitrate.

[27] Potassium nitrate (5,000): composite potassium nitrate-based fertilizers (in crystalline form) which have the same hazardous properties as pure potassium nitrate.

[28] Upgraded biogas: for the purpose of the implementation of the Convention, upgraded biogas may be classified under entry ~~18~~ **14** 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.

[29] Polychlorodibenzofurans and polychlorodibenzodioxins.

The quantities of polychlorodibenzofurans and polychlorodibenzodioxins are calculated using the following World Health Organization (WHO) human and mammalian toxic equivalency factors for dioxins and dioxin-like compounds (TEF) as re-evaluated in 2005:

| *WHO 2005 TEF* | | | |
|---|---|---|---|
| 2,3,7,8-TCDD | 1 | 2,3,7,8-TCDF | 0 |
| 1,2,3,7,8-PeCDD | 1 | 2,3,4,7,8-PeCDF | 0 |
| | | 1,2,3,7,8-PeCDF | 0 |
| | | 1,2,3,6,7,8-HxCDF | 0 |
| 1,2,3,4,6,7,8-HpCDD | 0 | 2,3,4,6,7,8-HxCDF | 0 |
| OCDD | 0 | 1,2,3,4,6,7,8-HpCDF | 0 |
| | | 1,2,3,4,7,8,9-HpCDF | 0 |
| | | OCDF | 0 |

*Abbreviations*: Hx = hexa, Hp = hepta, O = octa, P = penta, T = tetra.

*Reference*: Van den Berg et al, The 2005 World Health Organization Re-evaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds, *Toxicological Sciences*, vol. 93, No. 2, pp. 223–241 (2006).

[30] Provided that the mixture in the absence of sodium hypochlorite would not be classified as aquatic acute, Category 1.

[31] In cases where this dangerous substance falls within the category flammable liquids or flammable gases, for the purposes of the Convention the lowest qualifying quantities shall apply.

# Comparison of the current Annex I of the Convention and the proposed amended Annex I

| *CONVENTION – Annex I* | | *CONVENTION – Annex I (REVISED)* | |
|---|---|---|---|
| The quantities given below relate to each activity or group of activities. | | | |
| Where a substance or preparation named in Part II also falls within a category in Part I, the threshold quantity given in Part II shall be used. | | Where a substance or preparation named in Part II also falls within one or more categories in Part I, the threshold quantity given in Part II shall be used. | |
| For the identification of hazardous activities, Parties shall take into consideration the foreseeable possibility of aggravation of the hazards involved and the quantities of the hazardous substances and their proximity, whether under the charge of one or more operators. | | For the identification of hazardous activities, Parties shall take into consideration the actual or anticipated hazardous properties and/or quantities of all hazardous substances present or of hazardous substances which it is reasonable to foresee may be generated during loss of control of an activity, including storage activities, within a hazardous activity. | |
| **Hazardous substances for the purposes of defining hazardous activities** | **Threshold quantity (metric tons)** | **Hazardous substances for the purposes of defining hazardous activities** | **Threshold quantity (metric tons)** |
| **Part I.** | | **PART I.** | |
| **Categories of substances and preparations not specifically named in Part II** | | **Categories of substances and mixtures not specifically named in Part II** | |
| 5. Very toxic | 20 | 1. ACUTE TOXIC Category 1, all exposure routes | 20 |
| 4. Toxic | 200 | 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 |

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|---|---|---|---|
| 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 | 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 |
| 7a. Explosive, where the substance, preparation or article falls under Division 1.4 of the GHS criteria | 200 | 5. Explosives, where the substance, mixture or article falls under Division 1.4 of Chapter 2.1.2 of the GHS criteria | 200 |
| 3. Extremely flammable | 50 | 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 |
| 6. Oxidizing | 200 | 9. OXIDISING GASES, category 1 | 200 |
| 3. Extremely flammable | 50 | 10. FLAMMABLE LIQUIDS | 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 ≤ 60 °C, maintained at a temperature above their boiling point | |
| 2a. Highly flammable | 200 | 11. FLAMMABLE LIQUIDS Category 2 or 3 where particular | 200 |

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|---|---|---|---|
| | | processing conditions, such as high pressure or high temperature, may create major-accident hazards, or<br>- Other liquids with a flash point ≤ 60 °C where particular processing conditions, such as high pressure or high temperature, may create major-accident hazards | |
| 1. Flammable<br>(Note 2.) FLAMMABLE LIQUIDS: substances and preparations having a flash point equal to or greater than 21°C and less than or equal to 55°C, supporting combustion. | 50000 | 12. FLAMMABLE LIQUIDS Categories 2 or 3 not covered by 10 and 11 | 50000 |
| 2b. Highly flammable | | | |
| | | 13. SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES<br>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<br>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 |
| | | 16. OXIDISING LIQUIDS AND SOLIDS, Category 1, 2 or 3 | 200 |
| 8b. Dangerous to the environment – “Very toxic to aquatic organisms” | 200 | 17. HAZARDOUS TO THE AQUATIC ENVIRONMENT, Category ACUTE 1 or CHRONIC 1 | 200 |

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|---|---|---|---|
| 8a. Dangerous for the environment – "Toxic to aquatic organisms" | 500 | 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 |
| **Hazardous substances for the purposes of defining hazardous activities** | **Threshold quantity (metric tons)** | **Hazardous substances for the purposes of defining hazardous activities** | **Threshold quantity (metric tons)** |
| **PART II** | | **PART II** | |
| **Named substances** | | **Named substances** | |
| 1a. Ammonium nitrate | 10000 | 1a. Ammonium nitrate | 10000 |
| 1b. Ammonium nitrate | 5000 | 1b. Ammonium nitrate | 5000 |
| 1c. Ammonium nitrate | 2500 | 1c. Ammonium nitrate | 2500 |
| 1d. Ammonium nitrate | 50 | 1d. Ammonium nitrate | 50 |
| 2a. Potassium nitrate | 10000 | 2a. Potassium nitrate | 10000 |
| 2b. Potassium nitrate | 5000 | 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 |

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|---|---|---|---|
| 3. Chlorine | 25 | 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 |
| 5. Hydrogen | 50 | 11. Hydrogen | 50 |
| | 200 | 12. Hydrogen chloride (liquefied gas) | 250 |
| 8. Lead alkyls | 50 | 13. Lead alkyls | 50 |
| Liquefied extremely flammable gases (including LPG) and natural gas | 200 | 14. Liquefied extremely flammable gases, Category 1 or 2 (including liquefied petroleum gas) and natural gas | 200 |
| | | 15. Acetylene | 50 |
| 4. Ethylene oxide | 50 | 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 |
| 10. Methyl isocyanate | 0.15 | 20. Methyl isocyanate (2,4 - Toluene diisocyanate and 2,6 - Toluene diisocyanate) | 0.15 |
| | 200 | 21. Oxygen | 2000 |
| 6. Toluene diisocyanate | 100 | 22. Toluene diisocyanate | 100 |
| 9. Phosgene | 0.75 | 23. Carbonyl dichloride (phosgene) | 0.75 |
| | 200 | 24. Arsine (arsenic trihydride) | 1 |
| | 200 | 25. Phosphine (phosphorus trihydride) | 1 |

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|---|---|---|---|
| | | 26. Sulphur dichloride | 1 |
| 7. Sulphur trioxide | 75 | 27. Sulphur trioxide | 75 |
| | | 28. Polychlorodibenzofurans and polychlorodibenzodioxins (including tetrachlorodibenzodioxin (TCDD)), calculated in TCDD equivalent | 0.001 |
| | | 29. The following carcinogens or the mixtures containing the following carcinogens at concentrations above 5% by weight: | 2 |
| | | 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, Hexamethylphosphorictriamide, Hydrazine, 2- Naphthylamine and/or salts, 4-Nitrodiphenyl, and 1,3 Propanesultone | |
| 12. Petroleum products: gasolines and naphthas; kerosenes (including jet fuels); gas oils (including diesel fuels, home heating oils and gas oil blending streams) | 25000 | 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 |

| *CONVENTION – Annex I* | *CONVENTION – Annex I (REVISED)* | |
|---|---|---|
| | 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 |