

Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

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Sub-Committee of Experts on the Transport of Dangerous Goods

Fifty-third session

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Item 2 (j) of the provisional agenda

Explosives and related matters: miscellaneous

Comments on UN0222 Ammonium Nitrate

Transmitted by the Institute of Makers of Explosives (IME)

Background

1. The Dangerous Goods List has an entry for ammonium nitrate, UN0222 (1.1D), which is not a commercially manufactured product. This was further confirmed during the 52nd session, in which some members stated that this number is used for labelling contaminated AN or for AN fertilizers that fail test series 2.
2. At the 52nd Session, IME proposed a discussion to remove UN0222 from the Dangerous Goods List on the basis that it is not commercially used¹. The matter was referred to the working group on explosives (EWG). The EWG preferred not to remove UN 0222 with some (including United Kingdom, Germany, United States of America, Poland, Sweden, and AEISG) explaining that the entry is useful for classifying contaminated ammonium nitrate and AN of unknown classification. The EWG further confirmed that UN 0222 AN is not manufactured commercially for distribution but, as cited by some delegations, it preferred to retain the entry for special purposes and for fertilizers that fail test series 2².
3. The Sub-Committee noted and concurred with the findings of the EWG³. Despite the fact that it was further noted that IME would not pursue the matter further, IME still has concerns about misinterpretation of this dangerous goods listing and proposes an alternate remedy to the situation.

Discussion

4. As this ammonium nitrate entry appears in the Dangerous Goods List in Chapter 3.2 of the UN Model Regulations, it does get called upon by other jurisdictions since ammonium nitrate is a security sensitive chemical.
5. SP370, which applies only to UN0222, states, “ammonium nitrate with more than 0.2% combustible substances, including any organic substance calculated as carbon, to the

¹ [UN/SCETDG/52/INF.15](#)

² [UN/SCETDG/52/INF.53](#), para. 13

³ [ST/SG/AC.10/C.3/104](#), para. 34

exclusion of any added substance; and ammonium nitrate with not more than 0.2% combustibles, including any organic substance calculated as carbon, to the exclusion of any added substance, that gives a positive result when tested in accordance with Test Series 2...”.

6. Ammonium Nitrate mixed with fuel oil (ANFO), such as diesel, and manufactured as a Blasting Agent, Division 1.5 product is a commercial product and is classified and transported as UN0331 (1.5D) or as UN0082 (1.1D). However, since SP370 could also be applied to such a mixture, it could also be classified as UN0222. As confirmed by the EWG at the previous session, UN0222 is not manufactured commercially and the working group preferred to retain the entry for special purposes as described in paragraph 2 above. Therefore, classifying commercial ANFO as UN0222, while possible, is inappropriate since the entry is reserved for non-commercial special purposes.
7. Further, there are several additional entries for AN in the DGL; however, as the list is sequenced by UN number, UN0222 is the first entry encountered when searching the list for “ammonium nitrate”. One, especially one not familiar with or proficient in transport related classifications, could easily stop their search at this first encounter and mistakenly conclude that all AN is covered by UN0222.
8. To avoid confusion, an amendment to SP370, which applies only to UN0222, is proposed to clarify what is covered by the entry.
9. Also, in the current text of SP370, the two conditions are joined by the conjunction “and”. Since SP370 applies to AN meeting either condition, IME believes that “or” is the more appropriate conjunction.

Proposal

10. Amend SP370 as indicated below:

370 This entry only applies to ammonium nitrate that meets one of the following criteria:

- Ammonium nitrate with more than 0.2% combustible substances, including any organic substance calculated as carbon, to the exclusion of any added substance; ~~and~~or
- Ammonium nitrate with not more than 0.2% combustible substances, including any organic substance calculated as carbon, to the exclusion of any added substance, that gives a positive result when tested in accordance with Test Series 2 (see Manual of Tests and Criteria, Part I). See also UN No. 1942.

This entry shall not be used for ammonium nitrate for which a proper shipping name already exists in the Dangerous Goods List of Chapter 3.2 including ammonium nitrate mixed with fuel oil (ANFO) or any of the commercial grades of ammonium nitrate.

11. Should these proposals be acceptable to the Sub-Committee, IME will submit an official proposal for the next session.
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