

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

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Item 17 of the provisional agenda

Other business: new proposals

Transport classification of diesel fuel

Transmitted by the expert from China

Introduction

1. Diesel is a complex hydrocarbon mixture (C10-22), which is widely used in diesel engines of vehicles and vessels. The flash point of diesel is generally high. For example, the EN 590:2013+A1:2017 standard stipulates that the flash point of diesel products must be not less than 55 °C. Normally, the flash point of diesel with a freezing point above 0 °C can exceed 60 °C, while the flash point of those with a higher freezing point may even exceed 100 °C.
2. Recently, there have been some debates in China on how to classify diesel in transport. Specifically, is it necessary to consider the flash point of diesel fuel when determining whether it belongs to Class 3 dangerous goods?
3. The UN number UN1202 is assigned to diesel fuel. And, in the *Model Regulations*, there is only one entry under this UN number, which is GAS OIL or DIESEL FUEL or HEATING OIL, LIGHT. Currently, without the assignment of special provision SP223 (*If the chemical or physical properties of a substance covered by this description are such that when tested it does not meet the established defining criteria for the class or division listed in Column 3 of the Dangerous Goods List of Chapter 3.2, or any other class or division, it is not subject to these Regulations*) to this entry, it seems that diesel fuel shall be classified to this entry, whether or not it meets the criteria for Flammable Liquids in Chapter 2.3 (i.e. liquids with a flash point not more than 60 °C).
4. Classification of diesel in the *IMDG Code* of IMO is the same as in the *Model Regulations*.
5. In ICAO *TI* for air transport, diesel fuel is also classified as UN1202. However, with the assignment of Special Provision A3 (equivalent to SP223 in the *Model Regulations*), diesel fuels with flash point higher than 60 °C need not to be classified as dangerous goods if not meeting the criteria of any other Class or Division.
6. In ADR/RID/ADN, there are three entries for UN1202:
 - GAS OIL or DIESEL FUEL or HEATING OIL, LIGHT (flash-point not more than 60 °C);
 - DIESEL FUEL complying with standard EN 590:2013 + A1:2017 or GAS OIL or HEATING OIL, LIGHT with a flash-point as specified in EN 590:2013 + A1:2017;

- GAS OIL or DIESEL FUEL or HEATING OIL, LIGHT (flash-point more than 60 °C and not more than 100 °C).

7. 2.1.2.6 in ADR/RID/ADN prescribes: “On the basis of the test procedures of Chapter 2.3 and the criteria set out in sub-sections 2.2.x.1 of classes when it is so specified, it may be determined that a substance, solution or mixture of a certain class, mentioned by name in Table A of Chapter 3.2, does not meet the criteria of that class. In such a case, the substance, solution or mixture is deemed not to belong to that class”. According to this provision, and the criteria for Flammable Liquids in paragraph 2.2.3.1.1 together with *Note 2* below, it is reasonable to believe that diesel fuels need not be classified as UN1202, if the flash point exceeds 100 °C. In this case, these diesel fuels are not subject to the Regulations unless they meet the criteria for other Classes of Divisions.

8. For diesel not fulfilling the criteria for other Classes or Divisions, the classification in accordance with current provisions in different regulations based on flash point can be summarized as follows:

	Fp ≤ 60°C	60°C < Fp ≤ 100°C	Fp > 100°C
Model Regulations	UN 1202	UN 1202	UN 1202
IMO IMDG Code	UN 1202	UN 1202	UN 1202
ICAO TI	UN 1202	Not Restricted	Not Restricted
ADR/RID/ADN	UN 1202	UN 1202	Not Restricted

9. The experts from China wonder whether there is any special safety consideration that leads to the classification of diesel fuel as UN1202 regardless of its flash point in the *Model Regulations*.

Proposal

10. We invite experts in the Sub-Committee to share their understandings on whether it is necessary to consider the flash point when assigning UN1202 to diesel fuel.

11. If the Sub-Committee agree that, in the *Model Regulations*, diesel fuel with a flash point exceeding 60 °C should not be assigned to UN1202, we suggest to add “**223**” in Column (6) of the entry UN1202 in Chapter 3.2 DANGEROUS GOODS LIST.