

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

Sub-Committee of Experts on the Transport of Dangerous Goods

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Item 3 of the provisional agenda

Listing, classification and packing

Replacement of the term "boiling point" by the term "initial boiling point"

Transmitted by the expert from Germany

Introduction

1. This document refers to an issue identified during discussions on the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN). The obsolete term "boiling point" is still used in a number of places in the ADN. In other places this term has already been replaced by the term "initial boiling point" which is used today. An Informal Working Group therefore suggested to the ADN Safety Committee to harmonise the ADN terminology to "initial boiling point"
2. In this context it was found that some of the references were wordings taken over from the ADR. Following the idea of harmonisation, the Safety Committee decided to submit this issue to the Joint Meeting.
3. At its session in September 2015 the Joint Meeting, as a result of its discussion of the INF paper (INF 18) submitted by Germany, came to the conclusion that this application should first be submitted to the UN Expert Committee.
4. In the current version of the UN Model Regulations the term "boiling-point" is used in 19 places. The term "initial boiling point" is found in 4 places.

Proposal

5. It is proposed to replace the term "boiling point" by the term "initial boiling point". The references with the relevant wordings are shown in the Annex.

Annex

source	text
Figure 1	2.2 Boiling point or range°C
2.4.2.3.2.3	(7) With a compatible diluent having a boiling point of not less than 150 °C.
2.4.2.3.3.2	(g) Any substance which, in laboratory testing, neither detonates in the cavitated state nor deflagrates at all and shows no effect when heated under confinement nor any explosive power shall be exempted from classification as a self-reactive substance of Division 4.1 provided that the formulation is thermally stable (self-accelerating decomposition temperature 60 °C to 75 °C for a 50 kg package) and any diluent meets the requirements of 2.4.2.3.5 (defined as self-reactive substance type G, exit box G of Figure 2.4.1). If the formulation is not thermally stable or a compatible diluent having a boiling point less than 150 °C is used for desensitization, the formulation shall be defined as SELF-REACTIVE LIQUID/SOLID TYPE F.
2.4.2.3.5.4	Liquid diluents in liquid formulations requiring temperature control shall have a boiling point of at least 60 °C and a flash point not less than 5 °C. The boiling point of the liquid shall be at least 50 °C higher than the control temperature of the self-reactive substance (see 7.1.5.3.1).
Notes on 2.5.3.2.4	1) Diluent type B may always be replaced by diluent type A. The boiling point of diluent type B should be at least 60 °C higher than the SADT of the organic peroxide. 25) Diluent type B with boiling point > 110 °C. 30) Diluent type B with boiling point > 130 °C.
2.5.3.5.2	(a) Diluents type A are organic liquids which are compatible with the organic peroxide and which have a boiling point of not less than 150 °C. Type A diluents may be used for desensitizing all organic peroxides; (b) Diluents type B are organic liquids which are compatible with the organic peroxide and which have a boiling point of less than 150 °C but not less than 60 °C and a flash point of not less than 5 °C. Type B diluents may be used for desensitization of all organic peroxides provided that the boiling point is at least 60 °C higher than the SADT in a 50 kg package.
CHAPTER 3.2 DANGEROUS GOODS LIST UN No. 1973	CHLORODIFLUOROMETHANE AND CHLOROPENTAFLUOROETHANE MIXTURE with fixed boiling point , with approximately 49% chlorodifluoromethane (REFRIGERANT GAS R 502)

ALPHABETICAL INDEX OF SUBSTANCES AND ARTICLES	CHLORODIFLUOROMETHANE AND CHLOROPENTAFLUOROETHANE MIXTURE with fixed boiling point , with approximately 49% chlorodifluoromethane (REFRIGERANT GAS R 502)
PACKING INSTRUCTION P200 3 (c)	BP = boiling point (in Kelvin) d1 = density of the liquid at boiling point (in kg/l);
PACKING INSTRUCTION P200 Table 2 UN No. 1973	CHLORODIFLUOROMETHANE AND CHLOROPENTAFLUOROETHANE MIXTURE with fixed boiling point , with approximately 49% chlorodifluoromethane (REFRIGERANT GAS R 502)
PORTABLE TANK INSTRUCTION T50 UN No. 1973	CHLORODIFLUOROMETHANE AND CHLOROPENTAFLUOROETHANE MIXTURE with fixed boiling point , with approximately 49% chlorodifluoromethane (REFRIGERANT GAS R 502)
6.2.1.1.8.3	Closed cryogenic receptacles intended for the transport of refrigerated liquefied gases having a boiling point below -182 °C at atmospheric pressure shall not include materials which may react with oxygen or oxygen enriched atmospheres in a dangerous manner, when located in parts of the thermal insulation where there is a risk of contact with oxygen or with oxygen enriched liquid.
6.7.4.2.6	Portable tanks intended for the transport of refrigerated liquefied gases having a boiling point below minus 182 °C at atmospheric pressure shall not include materials which may react with oxygen or oxygen enriched atmospheres in a dangerous manner, when located in parts of the thermal insulation when there is a risk of contact with oxygen or with oxygen enriched fluid.