



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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Listing, classification and packing

Clarification of control and emergency temperatures for formulations listed in packing instruction IBC520 and portable tank instruction T23

**Transmitted by the expert from the Republic of Korea and the
European Chemical Industry Council (CEFIC)***

Introduction

1. In the twentieth revised edition of the Model Regulations, a new provision has been added in packing instruction IBC520 of 4.1.4.2 and portable tank instruction T23 of 4.2.5.2.6 as below:

“...The formulations listed below may also be transported packed in accordance with packing method OP8 of packing instruction P520 of 4.1.4.1, with the same control and emergency temperatures, if applicable.”

2. According to this new provision, the formulations that are not listed in 2.4.2.3.2.3 (*List of currently assigned self-reactive substances in packagings*) and 2.5.3.2.4 (*List of currently assigned organic peroxides in packagings*), but listed in IBC520 or T23, can be transported in packagings with the same control and emergency temperatures.

Discussion

3. Some formulations of UN 3119 ORGANIC PEROXIDE TYPE F, LIQUID, TEMPERATURE CONTROLLED, listed in IBC520 or T23, are also indicated in 2.4.2.3.2.3 or 2.5.3.2.4. In general, each provision indicates different control and emergency temperatures, and a more stringent means of temperature control is applied to intermediate bulk containers (IBCs) and portable tanks, compared to the temperature control applied to packagings.

* 2020 (A/74/6 (Sect.20) and Supplementary, Subprogramme 2.

4. Some formulations are included in the list for packagings (2.4.2.3.2.3 and 2.5.3.2.4), IBC520 and tank instruction T23, and other formulations are **only** listed in either IBC520 or T23. This may lead to confusion in the selection of the control and emergency temperatures when applicable (although always at the safe side as the confusion may lead to the selection of a lower control and emergency temperature of the listed formulation in IBC520 or T23). For current examples, see annex.
5. To avoid this confusion the Republic of Korea and CEFIC propose the following.

Proposal

6. Amend 2.4.2.3.2.3, 2.5.3.2.4, IBC520 of 4.1.4.2 and T23 of 4.2.5.2.6 to read as follows (new text is shown in **bold**):
- (a) Last sentence of 2.4.2.3.2.3 and 2.5.3.2.4:

“The formulations **not listed in this provision but** listed in packing instruction IBC520 of 4.1.4.2 and in portable tank instruction T23 of 4.2.5.2.6 may also be transported packed in accordance with packing method OP8 of packing instruction P520 of 4.1.4.1, with the same control and emergency temperatures, if applicable.”
 - (b) Second sentence in the third row of IBC520 of 4.1.4.2:

“... The formulations **not listed in 2.4.2.3.2.3 and 2.5.3.2.4 but** listed below may also be transported packed in accordance with packaging method OP8 of packing instruction P520 of 4.1.4.1, with the same control and emergency temperatures, if applicable.”
 - (c) Fourth sentence in the paragraph under the heading of T23 of 4.2.5.2.6:

“... The formulations **not listed in 2.4.2.3.2.3 and 2.5.3.2.4 but** listed below may also be transported packed in accordance with packaging method OP8 of packing instruction P520 of 4.1.4.1, with the same control and emergency temperatures, if applicable.”

Annex

Table of formulations of UN 3119 organic peroxides with different control and emergency temperatures

UN 3119 ORGANIC PEROXIDE	Provisions					
	2.5.3.2.4		IBC520 of 4.1.4.2		T23 of 4.2.5.2.6	
	C.T. (°C)	E.T. (°C)	C.T. (°C)	E.T. (°C)	C.T. (°C)	E.T. (°C)
tert-AMYL PEROXYNEODECANOATE, not more than 47% in diluent type A	0	+10			-10	-5
tert-BUTYL PEROXY-2-ETHYLHEXANOATE, not more than 32% in diluent type B	+40	+45	+30	+35	+15	+20
tert-BUTYL PEROXYNEODECANOATE, not more than 52%, stable dispersion, in water	0	+10	-5	+5		
tert-BUTYL PEROXIPIVALTE, not more than 27% in diluent type B	+30	+35	+10	+15	+5	+10
CUMYL PEROXYNEODECANOATE, not more than 52%, stable dispersion, in water	-10	0	-15	-5		
DI-(2-ETHYLHEXYL) PEROXYDICARBONATE, not more than 62%, stable dispersion, in water	-15	-5	-20	-10		
DIISOBUTYRYL PEROXIDE, not more than 42% as a stable dispersion in water	-20	-10	-25	-15		
DIMYRISTYL PEROXYDICARBONATE, not more than 42%, stable dispersion, in water	+20	+25	+15	+20		
DI-(3,5,5-TRIMETHYLHEXANOYL) PEROXIDE, not more than 38% in diluent type A	+20	+25	0	+5		

Note 1: “C.T.” and “E.T.” mean “Control Temperature” and “Emergency Temperatures”, respectively.

Note 2: Formulations that do not require temperature control are not included in the above table as they do not have control and emergency temperatures. .