



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

Organic peroxides: new formulations to be listed in 2.5.3.2.4 and packing instruction IBC520

Submitted by the European Chemical Industry Council (Cefic)*

I. Introduction

1. Since several new organic peroxides and formulations have become commercially available there is a need to include them in 2.5.3.2.4 and 4.1.4.2, packing instruction IBC520.
2. One new organic peroxide and one already listed organic peroxide with a lower concentration are proposed to be included in 2.5.3.2.4. Further, one organic peroxide, already listed but with a higher concentration in diluent type A, is proposed to be included in intermediate bulk containers (IBC) packing instruction IBC520.
3. The list of products, proposed classification, the accompanying competent authority approval references as well as a summary of the supporting test data are given in the annex to this proposal.

II. Proposals

4. Cefic proposes to include two entries in 2.5.3.2.4, list of currently assigned organic peroxides, as indicated in proposal 1 below (amendments to 2.5.3.2.4). Further, Cefic proposes to include one entry to be included in packing instruction IBC520, as indicated in proposal 2 below (amendments to 4.1.4.2).

* A/77/6 (Sect. 20), table 20.6



1. Proposed amendments to 2.5.3.2.4, list of currently assigned organic peroxides

ORGANIC PEROXIDE	Concentration (%)	Diluent type A (%)	Diluent type B ¹ (%)	Inert solid (%)	Water (%)	Packing Method	Control temperature (°C)	Emergency temperature (°C)	Number (Generic entry)	Subsidiary risks and remarks
Add to the existing entry in the list: tert-AMYL PEROXYPIVALATE	≤ 72	≥ 28				OP7	+10 °C	+15 °C	3115	
Add this new entry to the list: 1,2,4,5,7,8-HEXOXONANE, 3,6,9-TRIMETHYL-3,6,9-tris (Ethyl and Propyl) derivatives	≤ 41	≥ 59				OP7			3105	35)

Add the following new note to 2.5.3.2.4:

35) Available oxygen ≤ 7.3 %

2. Proposed amendments to 4.1.4.2, packing instruction IBC520

Add IBC type 31HA1 to the existing entry as follows:

UN No.	Organic peroxide	Type of IBC	Maximum quantity (litres)	Control temperature	Emergency temperature
3119	ORGANIC PEROXIDE TYPE F, LIQUID, TEMPERATURE CONTROLLED				
	ADD to the list:				
	tert-Butyl peroxy-2-ethylhexanoate, not more than 52 %, in diluent type A	31HA1 31A	1 000 1 250	+30 °C	+35 °C

Annex

Test result of organic peroxides and formulations to be added (2.5.3.2.4 or IBC520)

No	Product	Packaging	UN	Detonation	T/P/ C.1	Deflagration / C.2	Koenen/ E.1	DPVT/ E.2	(mod) Trauzl F.3 or F.4 or F5	SADT (H.3 or H.4)	Competent authority approval number
1	tert-AMYL PEROXYPIVALATE , ≤ 72 in diluent type A	OP7	3115	Test A.1, No (77 %)	3622 ms Yes slowly	1.28 mm/s Yes slowly	1.5 mm Medium	8.0 mm (10 g), Medium	n.a.	H.4 25 °C (500 ml)	NL TNO 16EM/0042
2	1,2,4,5,7,8-HEXOXONANE, 3,6,9-TRIMETHYL-3,6,9-tris (Ethyl and Propyl) derivatives, ≤ 41 in diluent type A	OP7	3105	Test A.6, No	< 2170 kP, No	0.033 mm/s, No	1.5 mm, Medium	4.0 mm (10 g) Medium	F.4 8.0 ml Low	H.4 110 °C (500 ml)	NL TNO 14EM/0672
3	tert-Butyl peroxy-2-ethylhexanoate, not more than 52 %, in diluent type A	IBC520	3119	Test A.1, No (100 %)	1953 ms, Yes slowly	0.15 mm/s, No	1.0 mm, Low (70 %)	<3.5 mm (10 g) Low	F.5 56 J/g Low	H.3 +40 °C (IBC)	NL TNO 09DV3/2722 NL TNO 06DV3/1070