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Sub-Committee of Experts on the Transport of Dangerous Goods

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

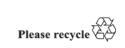
Submitted by the European Chemical Industry Council (Cefic)\*

#### 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).





<sup>\*</sup> 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 <sup>1</sup> (%)	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	(70)	(70)	(70)	OP7	+10 °C	+15 °C	3115	Temarks
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,	31HA1	1 000	+30 °C	+35 ℃				
	not more than 52 %, in diluent type	31A	1 250						
	A								

## 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