INF. 12

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HARMONIZATION WITH THE UN MODEL REGULATIONS ON THE TRANSPORT OF DANGEROUS GOODS

Carriage in bulk and in bulk containers

Transmitted by the Government of the United Kingdom

SUMMARY

Executive summary: There are currently two parallel systems for dealing with carriage in bulk in RID/ADR. In the base document ECE/TRANS/WP.15/AC.1/2009/48, the Government of the United Kingdom proposed that, in the future, there should only be one based on the multimodal system from the UN Model Regulations using bulk containers of Codes BK1 and BK2. In this informal document linked to the base document, the United Kingdom has drafted some initial proposals on how to take this subject forward towards a single system.

Action to be taken: Consider initial proposals on how to develop a single system of bulk container codes.

Related document: ECE/TRANS/WP.15/AC.1/2009/48.

INF 16 (Joint Meeting – March 2009)

Introduction

1. As mentioned in paragraph 11 of 2009/48, this informal document lists each of the current RID/ADR special provisions for carriage in bulk together with the

entries in Table A of Chapter 3.2 that are allocated the Code and where applicable the UN bulk container code (BK1, BK2).

2. After each RID/ADR special provision (VW/VV Code) or groups of Codes, initial proposals are put forward. It is important to bear in mind that when the parallel UN system based on bulk container codes BK1 and BK2 was included in RID/ADR for the 2005 editions, the general provisions in 7.3.1 were added from the text of Chapter 4.3 of the UN Model Regulations to apply to both systems without any consequential changes being made to the texts of the VW/VV special provisions.

3. It is considered that in general, specific requirements in the VW/VV special provisions are adequately covered in 7.3.1 together with any Class specific provisions in 7.3.2 to allow a move towards one system based on the BK1 and BK2 Codes.

Proposals

4. Codes VW1 and VV1

UN No.	**Substance name**	**Class**	**PG**	**UN Bulk Code**
1309	Aluminium powder, coated	4.1	III	
1312	Borneol	4.1	III	
1313	Calcium resinate	4.1	III	
1314	Calcium resinate (fused)	4.1	III	
1318	Cobalt resinate (precipitated)	4.1	III	
1325	Flammable solid	4.1	III	
1328	Hexamethylenetetramine	4.1	III	
1330	Manganese resinate	4.1	III	
1332	Metaldehyde	4.1	III	
1338	Phosphorus, amorphous	4.1	III	
1346	Silicon powder, amorphous	4.1	III	
1350	Sulphur	4.1	III	BK1, BK2
1408	Ferrosilicon	4.3	III	BK2
1869	Magnesium or Magnesium alloys	4.1	III	
2001	Cobalt naphthenates, powder	4.1	III	
2213	Paraformaldehyde	4.1	III	BK1, BK2
2538	Nitronaphthalene	4.1	III	
2687	Dicyclohexylammonium nitrite	4.1	III	
2714	Zinc resinate	4.1	III	
2715	Aluminium resinate	4.1	III	
2717	Camphor	4.1	III	
2858	Zirconium, dry	4.1	III	
2878	Titanium sponge granules or powder	4.1	III	
2989	Lead phosphite, dibasic	4.1	III	
3077	Environmentally hazardous substance, solid, n.o.s.	9	III	BK2
3089	Metal powder, flammable, n.o.s.	4.1	III	
3178	Flammable solid, inorganic, n.o.s.	4.1	III	
3181	Metal salts of organic compounds, flammable, n.o.s.	4.1	III	
3182	Metal hydrides, flammable, n.o.s.	4.1	III	

It is proposed that Code VW1/VV1 is deleted from Column (17) against these entries in Table A in Chapter 3.2 and bulk container codes BK1 and BK2 are added to Column (10) where not already provided for.

5. Codes VW1 & VW5 and VV1 & VV5

UN No.	Substance name	Class	PG	UN Bulk Code
3170	Aluminium smelting or remelting by-products	4.3	III	BK1, BK2

It is proposed that Codes VW1/VV1 and VW5/VV5 are deleted from Column (17) against this entry in Table A in Chapter 3.2.

6. Codes VW2 and VV2

UN No.	Substance name	Class	PG	UN Bulk Code
1334	Naphthalene, crude or refined	4.1	III	BK1, BK2

It is proposed that Code VW2/VV2 is deleted from Column (17) against this entry in Table A in Chapter 3.2.

7. Codes VW3 and VV3

UN No.	Substance name	Class	PG	UN Bulk Code
2211	Polymeric beads, expandable	9	III	
3175	Solid containing flammable liquid, n.o.s.	4.1	II	BK1, BK2
3314	Plastics moulding compound	9	III	

It is proposed that Code VW3/VV3 is deleted from Column (17) against these entries in Table A in Chapter 3.2 and bulk container codes BK1 and BK2 are added to Column (10) where not already provided for.

8. Codes VW4 and VV4

UN No.	Substance name	Class	PG	UN Bulk Code
1361	Carbon	4.2	III	
1362	Carbon, activated	4.2	III	
1363	Copra	4.2	III	
1364	Cotton waste, oily	4.2	III	
1365	Cotton, wet	4.2	III	
1373	Fibres, fabrics with oil	4.2	III	
1376	Iron oxide or iron sponge, spent	4.2	III	BK2
1379	Paper, unsaturated oil treated	4.2	III	
1386	Seed cake	4.2	III	
1932	Zirconium scrap	4.2	III	
2008	Zirconium powder, dry	4.2	III	
2009	Zirconium, dry, sheets, strips etc	4.2	III	
2210	Maneb or maneb preparation	4.2	III	

2217	Seed cake	4.2	III	
2545	Hafnium powder, dry	4.2	III	
2546	Titanium powder, dry	4.2	III	
2793	Ferrous metal borings, shavings, etc	4.2	III	
2881	Metal catalyst, dry	4.2	III	
3189	Metal powder, self heating, dry	4.2	III	
3190	Self heating solid, inorganic, n.o.s.	4.2	III	

It is proposed that Code VW4/VV4 is deleted from Column (17) against these entries in Table A in Chapter 3.2 and bulk container codes BK1 and BK2 are added to Column (10) where not already provided for.

9. Codes VW5 and VV5

UN No.	Substance name	Class	PG	UN Bulk Code
1394	Aluminium carbide	4.3	II	
1396	Aluminium powder, uncoated	4.3	III	
1398	Aluminium silicon powder, uncoated	4.3	III	
1402	Calcium carbide	4.3	II	
1418	Magnesium or magnesium alloys, powder	4.3	III	
1435	Zinc ashes	4.3	III	
1436	Zinc powder or dust	4.3	III	
2813	Water-reactive solid, n.o.s.	4.3	III	
2950	Magnesium granules, coated	4.3	III	BK2
2968	Maneb or maneb preparation, stabilized	4.3	III	
3208	Metallic substance, water-reactive, n.o.s.	4.3	III	
3209	Metallic substance, water-reactive, self-heating, n.o.s.	4.3	III	

It is proposed that Code VW5/VV5 is deleted from Column (17) against these entries in Table A in Chapter 3.2 and bulk container code BK2 is added to Column (10) where not already provided for.

10. Codes VW5 & VW7 and VV5 & VV7

UN No.	Substance name	Class	PG	UN Bulk Code
1405	Calcium silicide	4.3	III	
2844	Calcium manganese silicon	4.3	III	

Codes VW6 and VV3

UN No.	Substance name	Class	PG	UN Bulk Code
3170	Aluminium smelting or remelting by-products	4.3	II	BK1, BK2

Codes VW7 and VV7

UN No.	Substance name	Class	PG	UN Bulk Code
1405	Calcium silicide	4.3	II	

It is proposed that Codes VW5/VV5, VW7/VV7 and VW6 and VV3 are deleted from Column (17) against these entries in Table A in Chapter 3.2 and bulk container codes BK1 and BK2 are added to Column (10) where not already provided for.

11. Codes VW8 and VV8

UN No.	Substance name	Class	PG	UN Bulk Code
1438	Aluminium nitrate	5.1	III	BK1, BK2
1442	Ammonium perchlorate	5.1	II	
1444	Ammonium persulphate	5.1	III	
1450	Bromates, inorganic, n.o.s.	5.1	II	
1451	Caesium nitrate	5.1	III	
1452	Calcium chlorate	5.1	II	
1454	Calcium nitrate	5.1	III	BK1, BK2
1455	Calcium perchlorate	5.1	II	
1458	Chlorate and borate mixture	5.1	II	
1458	Chlorate and borate mixture	5.1	III	
1459	Chlorate and magnesium chloride mixture, solid	5.1	II	
1459	Chlorate and magnesium chloride mixture, solid	5.1	III	
1461	Chlorates, inorganic, n.o.s.	5.1	II	
1465	Didymium nitrate	5.1	III	
1466	Ferric nitrate	5.1	III	
1467	Guanidine nitrate	5.1	III	
1473	Magnesium bromate	5.1	II	
1474	Magnesium nitrate	5.1	III	BK1, BK2
1475	Magnesium perchlorate	5.1	II	
1477	Nitrates, inorganic, n.o.s.	5.1	III	
1481	Perchlorates, inorganic, n.o.s.	5.1	II	
1481	Perchlorates, inorganic, n.o.s.	5.1	III	
1484	Potassium bromate	5.1	II	

1485	Potassium chlorate	5.1	II	
1486	Potassium nitrate	5.1	III	BK1, BK2
1487	Potassium nitrate and sodium nitrite mixture	5.1	II	
1488	Potassium nitrite	5.1	II	
1489	Potassium perchlorate	5.1	II	
1492	Potassium persulphate	5.1	III	
1493	Silver nitrate	5.1	II	
1494	Sodium bromate	5.1	II	
1495	Sodium chlorate	5.1	II	BK1, BK2
1498	Sodium nitrate	5.1	III	BK1, BK2
1499	Potassium nitrate and sodium nitrate mixture	5.1	III	BK1, BK2
1502	Sodium perchlorate	5.1	II	
1505	Sodium persulphate	5.1	III	
1506	Strontium chlorate	5.1	II	
1507	Strontium nitrate	5.1	III	
1508	Strontium perchlorate	5.1	II	
1513	Zinc chlorate	5.1	II	
1942	Ammonium nitrate	5.1	III	BK1, BK2
2067	Ammonium nitrate based fertilizer	5.1	III	BK1, BK2
2469	Zinc bromate	5.1	III	
2720	Chromium nitrate	5.1	III	
2721	Copper chlorate	5.1	II	
2722	Lithium nitrate	5.1	III	
2723	Magnesium chlorate	5.1	II	
2724	Manganese nitrate	5.1	III	
2725	Nickel nitrate	5.1	III	
2726	Nickel nitrite	5.1	III	

2728	Zirconium nitrate	5.1	III	
2880	Calcium hypochlorite, hydrated or hydrated mixture	5.1	III	
3215	Persulphates, inorganic, n.o.s.	5.1	III	
3377	Sodium perborate monohydrate	5.1	III	BK1, BK2
3378	Sodium carbonate peroxyhydrate	5.1	II	BK1, BK2
3378	Sodium carbonate peroxyhydrate	5.1	III	BK1, BK2

It is proposed that Code VW8/VV8 is deleted from Column (17) against these entries in Table A in Chapter 3.2 and bulk container codes BK1 and BK2 are added to Column (10) where not already provided for.

12. Codes VW9 and VV3

UN No.	**Substance name**	**Class**	**PG**	**UN Bulk Code**
1841	Acetaldehyde ammonia	9	III	
1931	Zinc dithionite (Zinc hydrosulphite)	9	III	
2969	Castor beans, meal, pomace or flake	9	II	BK1, BK2

It is proposed that Codes VW9 [RID] and VV3 [ADR] are deleted from Column (17) against these entries in Table A in Chapter 3.2 and bulk container codes BK1 and BK2 are added to Column (10) where not already provided for.

13. Codes VW9 and VV9

UN No.	**Substance name**	**Class**	**PG**	**UN Bulk Code**
1544	Alkaloids or alkaloid salts, solid, n.o.s.	6.1	III	
1548	Aniline hydrochloride	6.1	III	
1549	Antimony compound, inorganic, solid, n.o.s.	6.1	III	
1550	Antimony lactate	6.1	III	
1551	Antimony potassium tartrate	6.1	III	
1557	Arsenic compound, solid, n.o.s.	6.1	III	
1564	Barium compound, n.o.s.	6.1	III	
1566	Beryllium compound, n.o.s.	6.1	III	
1579	4-Chloro-o-toluidine hydrochloride, solid	6.1	III	
1588	Cyanides, inorganic, solid, n.o.s.	6.1	III	
1601	Disinfectant, solid, toxic, n.o.s.	6.1	III	

1616	Lead acetate	6.1	III	
1655	Nicotine compound or preparation, solid, n.o.s.	6.1	III	
1663	Nitrophenols	6.1	III	
1673	Phenyldiamines	6.1	III	
1690	Sodium fluoride, solid	6.1	III	
1709	2,4-Toluenediamine, solid	6.1	III	
1740	Hydrogendifluorides, solid, n.o.s.	8	III	
1759	Corrosive solid n.o.s.	8	III	
1773	Ferric chloride, anhydrous	8	III	
1794	Lead sulphate	8	II	
1812	Potassium fluoride, solid	6.1	III	
1884	Barium oxide	6.1	III	
1907	Soda lime	8	III	
2020	Chlorophenols, solid	6.1	III	
2025	Mercury compound, solid, n.o.s.	6.1	III	
2026	Phenylmercuric compound, n.o.s.	6.1	III	
2074	Acrylamide, solid	6.1	III	
2077	alpha-Naphthylamine	6.1	III	
2214	Phthalic anhydride	8	III	
2215	Maleic anhydride	8	III	
2237	Chloronitroanilines	6.1	III	
2239	Chlorotoluidines solid	6.1	III	
2280	Hexamethylenediamine, solid	8	III	
2291	Lead compound, soluble, n.o.s.	6.1	III	
2331	Zinc chloride, anhydrous	8	III	
2430	Alkylphenols, solid, n.o.s.	8	III	
2433	Chloronitrotoluenes, solid	6.1	III	

2440	Stannic chloride pentahydrate	8	III	
2446	Nitrocresols, solid	6.1	III	
2473	Sodium arsanilate	6.1	III	
2475	Vanadium trichloride	8	III	
2503	Zirconium tetrachloride	8	III	
2505	Ammonium fluoride	6.1	III	
2506	Ammonium hydrogen sulphate	8	II	
2507	Chloroplatinic acid, solid	8	III	
2508	Molybdenum pentachloride	8	III	
2509	Potassium hydrogen sulphate	8	II	
2512	Aminophenols	6.1	III	
2516	Carbon tetrabromide	6.1	III	
2570	Cadmium compound	6.1	III	
2578	Phosphorus trioxide	8	III	
2579	Piperazine	8	III	
2585	Alkylsulphonic acids, solid	8	III	
2588	Pesticide, solid, toxic, n.o.s.	6.1	III	
2651	4,4’-Diaminodiphenylmethane	6.1	III	
2655	Potassium fluorosilicate	6.1	III	
2659	Sodium chloroacetate	6.1	III	
2660	Nitrotoluidines (mono)	6.1	III	
2674	Sodium fluorosilicate	6.1	III	
2698	Tetrahydrophthalic anhydrides	8	III	
2713	Acridine	6.1	III	
2716	1,4,Butynediol	6.1	III	
2729	Hexachlorobenzene	6.1	III	
2757	Carbamate pesticide, solid, toxic	6.1	III	

2759	Arsenical pesticide, solid, toxic	6.1	III	
2761	Organochlorine pesticide, solid, toxic	6.1	III	
2763	Triazine pesticide, solid, toxic	6.1	III	
2771	Thiocarbamate pesticide, solid, toxic	6.1	III	
2775	Copper based pesticide, solid, toxic	6.1	III	
2777	Mercury based pesticide, solid, toxic	6.1	III	
2779	Substituted nitrophenol pesticide, solid, toxic	6.1	III	
2781	Bipyridilium pesticide, solid, toxic	6.1	III	
2783	Organophosphorus pesticide, solid, toxic	6.1	III	
2786	Organotin pesticide, solid, toxic	6.1	III	
2802	Copper chloride	8	III	
2803	Gallium	8	III	
2811	Toxic solid, organic, n.o.s.	6.1	III	
2823	Crotonic acid, solid	8	III	
2834	Phosphorous acid	8	III	
2853	Magnesium fluorosilicate	6.1	III	
2854	Ammonium fluorosilicate	6.1	III	
2855	Zinc fluorosilicate	6.1	III	
2856	Fluorosilicates, n.o.s.	6.1	III	
2862	Vanadium pentoxide	6.1	III	
2865	Hydroxylamine sulphate	8	III	
2869	Titanium trichloride mixture	8	III	
2871	Antimony powder	6.1	III	
2875	Hexachlorophene	6.1	III	
2876	Resorcinol	6.1	III	
2905	Chlorophenolates or phenolates, solid	8	III	
2923	Corrosive solid, toxic, n.o.s.	8	III	

2967	Sulphamic acid	8	III	
3027	Coumarin derivative pesticide, solid, toxic	6.1	III	
3143	Dye or dye intermediate, solid, toxic, n.o.s.	6.1	III	
3146	Organotin compound, solid, n.o.s.	6.1	III	
3147	Dye or dye intermediate, solid, corrosive, n.o.s.	8	III	
3249	Medicine, solid, toxic, n.o.s.	6.1	III	
3253	Disodium trioxosilicate	8	III	
3259	Amines or polyamines, solid, corrosive, n.o.s.	8	III	
3260	Corrosive solid, acidic, inorganic, n.o.s.	8	III	
3261	Corrosive solid, acidic, organic, n.o.s.	8	III	
3262	Corrosive solid, basic, inorganic, n.o.s.	8	III	
3263	Corrosive solid, basic, organic, n.o.s.	8	III	
3283	Selenium compound, solid, n.o.s.	6.1	III	
3284	Tellerium compound, n.o.s.	6.1	III	
3285	Vanadium compound, n.o.s.	6.1	III	
3288	Toxic solid, inorganic, n.o.s.	6.1	III	
3345	Phenoxyacetic acid derivative pesticide, solid, toxic	6.1	III	
3349	Pyrethroid pesticide, solid, toxic	6.1	III	
3427	Chlorobenzyl chlorides, solid	6.1	III	
3438	alpha-Methylbenzyl alcohol, solid	6.1	III	
3439	Nitriles, toxic, solid, n.o.s.	6.1	III	
3453	Phosphoric acid, solid	8	III	
3457	Chloronitrotoluenes, solid	6.1	III	
3458	Nitroanisoles, solid	6.1	III	
3459	Nitrobromobenzenes, solid	6.1	III	
3460	N-Ethylbenzyltoluidines, solid	6.1	III	
3462	Toxins, extracted from living sources, solid, n.o.s.	6.1	III	

3464	Organophosphorus compound, toxic, solid, n.o.s.	6.1	III	
3465	Organoarsenic compound, solid, n.o.s.	6.1	III	
3466	Metal carbonyls, solid, n.o.s.	6.1	III	
3467	Organometallic compound, toxic, solid, n.o.s.	6.1	III	

It is proposed that Code VW9/VV9 is deleted from Column (17) against these entries in Table A in Chapter 3.2 and bulk container codes BK1 and BK2 are added to Column (10). Through UN, consider amending 7.3.2.8 to read "These goods shall be carried in bulk containers which are leakproof or rendered leakproof, for example by means of a suitable and sufficiently stout inner lining.

14. Codes VW10 and VV10

UN No.	Substance name	Class	PG	UN Bulk Code
3243	Solid containing toxic liquid, n.o.s.	6.1	II	BK1, BK2
3244	Solid containing corrosive liquid, n.o.s.	8	II	BK1, BK2

It is proposed that Code VW10/VV10 is deleted from Column (17) against these entries in Table A in Chapter 3.2.

15. Codes VW11 and VV11

UN No.	Substance name	Class	PG	UN Bulk Code
3291	Clinical waste, unspecified n.o.s. or (bio)medical waste, n.o.s. or regulated medical waste, n.o.s.	6.2	II	BK2

It is proposed that Code VW11/VV11 is deleted from Column (17) against this entry in Table A in Chapter 3.2.

16. Codes VW12 and VV12

UN No.	Substance name	Class	PG	UN Bulk Code
3257	Elevated temperature liquid, n.o.s.	9	III	

Codes VW13 and VV13

UN No.	Substance name	Class	PG	UN Bulk Code
3258	Elevated temperature solid, n.o.s.	9	III	

Codes VW14 and VV14

UN No.	Substance name	Class	PG	UN Bulk Code
2794	Batteries, wet, filled with acid	8		
2795	Batteries, wet, filled with alkali	8		
2800	Batteries, wet, non-spillable	8		
3028	Batteries, dry, containing potassium hydroxide solid	8		

Codes VW15 and VV15

UN No.	Substance name	Class	PG	UN Bulk Code
2315	Polychlorinated biphenyls, liquid	9	II	
3151	Polyhalogenated bi- or terphenyls, liquid	9	II	
3152	Polyhalogenated bi- or terphenyls, solid	9	II	
3432	Polychlorinated biphenyls, solid	9	II	

It is proposed that Codes VW12/VV12 to VW15/VV15 inclusive are retained.

17. Codes VW16 and VV16

UN No.	Substance name	Class	PG	UN Bulk Code
2912	Radioactive material, low specific activity (LSA-I)	7		

Codes VW17 and VV17

UN No.	Substance name	Class	PG	UN Bulk Code
2913	Radioactive material, surface contaminated objects (SCO-I or SCO-II)	7		

As the two systems are the same and refer off to 4.1.9.2.3, it is proposed that Codes VW16/VV16 and VW17/VV17 are deleted from Column (17) and "see 4.1.9.2.3" is added to Column (10) against these entries in Table A in Chapter 3.2.

18. The following substances are listed in RID/ADR with UN Bulk Codes in Column (10) but not with RID/ADR Bulk Codes in Column (17).

UN No.	Substance name	Class	PG	UN Bulk Code
2814	Infectious substance, affecting humans (animal material only)	6.2		BK1, BK2
2900	Infectious substance, affecting animals only (animal material only)	6.2		BK1, BK2
3373	Biological substance, Category B, (animal material only)	6.2		BK1, BK2

19. It is proposed to delete the text of the following special provisions/VW/VV codes in 7.3.3 and replace with "(reserved)": -

VW1/VV1 to VW11/VV11 inclusive, VW16/VV16 and VW17/VV17.