

Dangerous Goods Transport Data Model Transition from DATEX II V2.3 to 3.0

Changelog



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Version 01-00-00



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Document History

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00-01-02	13/05/2020	Addendum Change done in parallel in the UML model	Jean-Philippe Méchin, Cerema Daniel Odoon, MTES/SG/sNum
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00-01-04	18/06/2020	Revision according to DG regulation updates since 2011, change of changelog structure	Christian Lüpkes, AlbrechtConsult
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1. Improvement of DGT Model readability

1.1 Renaming of D2Packages

1.1.1 D2Package DangerousGoodsTransportArtefacts

Version 2.3	Version 3.0	Reason
D2Package DangerousGoodsTransportArtefacts	D2Package DGTransport	Simplification

1.1.2 D2Package DangerousGoodsTransportUnits

Version 2.3	Version 3.0	Reason
D2Package DangerousGoodsTransportUnits	D2Package DGTransportUnits	Simplification

1.1.3 D2Package DangerousGoodsDynamicInformation

Version 2.3	Version 3.0	Reason
D2Package DangerousGoods DangerousGoodsDynamicInformation	D2Package DGDynamicInformation	Simplification

1.1.4 D2Package DangerousGoodsTransportDocument

Version 2.3	Version 3.0	Reason
D2Package DangerousGoodsTransportDocument	D2Package DGTransportDocument	Simplification

1.1.5 D2Package DangerousGoodsDocuments

Version 2.3	Version 3.0	Reason
D2Package DangerousGoodsDocuments	D2Package DGAccompanyingInformation	Specification of further documentation requirements outside of the DGTDocument, that are not only artefacts or documents. The latter can be concluded as acc. information.

1.1.6 D2Package ClassDetails

Version 2.3	Version 3.0	Reason
D2Package ClassDetails	D2Package DGDescriptionDetails	Avoid confusions with UML terminology.

1.2 Changing of diagrams

1.2.1 General

Diagrams have been renamed in “DG[...]Diagram” and moved with the exceptions in the table below from the root of DangerousGoodsTransport directory to the dedicated D2Package.

All changes within the diagrams (new classes, new relations, generalisations, etc) have been marked in red. Classes that have been revised are highlighted by red a font while new classes are filled red.

Version 2.3	Version 3.0	Reason
DangerousGoodsTransportGlobal	DangerousGoodsTransportGlobalDiagram	New name convention. Diagram stays in the root directory since it gives a general overview which helps to understand the model.
DangerousGoodsTransport	DangerousGoodsTransportPackageDiagram	New name convention. Diagram stays in the root directory since it gives a general overview on the packages.
DangerousGoodsTransportDocument	-	Deleted since it has no additional value and could be mixed up with the diagram DGTransportDocumentDiagram.
DangerousGoodsDynamicInformation-PointByCoordinates	-	Deleted since it has no additional value.

1.2.2 Diagram DangerousGoodsTransportArtefacts

Version 2.3	Version 3.0	Reason
DangerousGoodsTransportArtefacts	DGTransportDiagram	New name convention

- The relation between D2Identifiable DGTransport and D2Class DGTDocument has been changed to optional (0..*). Due to the use of the XML Schema by all WSDLs and methods, it is allowed to transmit information only about the transport unit without the DGTdocument. By instance for the method HandleVehicle. An appropriate note has been introduced in the DGTransport diagram.
- Short links have been introduced:
 - From Class DGAccompanyingInformation to the diagram DGAccompanyingInformationDiagram
 - From class DGTransportDocument::DGTDocument to the diagram DGTransportDocumentDiagram
 - From class DGDynamicInformation::DGLoadInformationDynamic to the diagram DGDynamicInformationDiagram

- From class DGDynamicInformation::DGVehicleInformationDynamic to the diagram DGDynamicInformationDiagram
- From the class DGTransportUnit::DGTransportUnit to the diagram DGTransportUnitDiagram

1.2.3 Diagram DGTransportDocument

Version 2.3	Version 3.0	Reason
DGTransportDocument	DGTransportDocument Diagram	New name convention

- Relations between D2Classes Carrier, Consignee and Consignor and D2Class Address changed from generalisation to Aggregation.

1.2.4 Diagram DGTransportUnit

Version 2.3	Version 3.0	Reason
DangerousGoodsTransportUnit	DGTransportUnitDiagram	New name convention

1.2.5 Diagram DangerousGoodsDynamicInformation

Version 2.3	Version 3.0	Reason
DangerousGoodsDynamicInformation	DGTransportDynamicInformationDiagram	New name convention

- Change by deleting the generalisation of the class DGTransportUnit
- Reorganise the design of the whole schema

1.2.6 Diagram DangerousGoodsDynamicInformation-PointByCoordinates

Version 2.3	Version 3.0	Reason
DangerousGoodsDynamicInformation-PointByCoordinates	DGPositioningInformationDiagram	New name convention and simplification

1.2.7 Diagram ClassDetails

Version 2.3	Version 3.0	Reason
ClassDetails	DGDescriptionDetailsDiagram	Avoid confusions with UML terminology.

1.2.8 Diagram Specialisation

Version 2.3	Version 3.0	Reason
Specialisation	DGDescriptionSpecialisationClass1Class7	Avoid confusions with UML terminology.

1.2.9 Diagram DGTEmpyUncleanedContainments

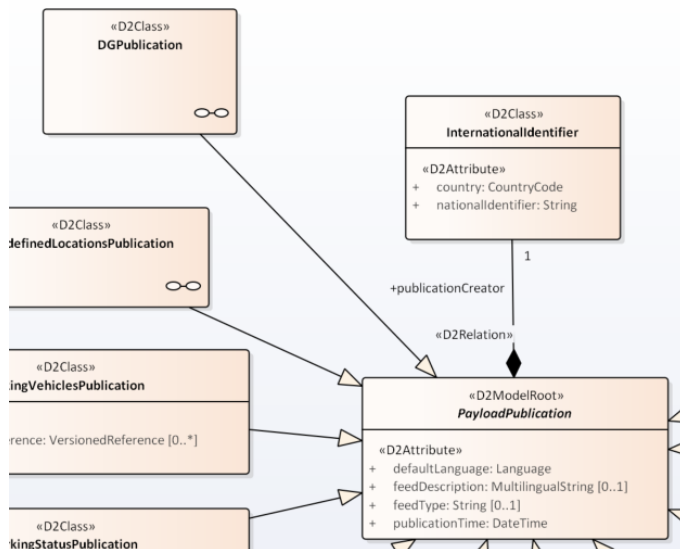
Version 2.3	Version 3.0	Reason
DGTEmpyUncleanedContainments	DGTEmpyUncleanedContainmentsDiagram	New name convention.

- Reorganise the design of the whole schema

2. Changes within D2Packages

2.1 D2Package DGTransport

Version 2.3	Version 3.0
Class DGExchange	D2Class DGExchange excluded from the model
Identifiable DGCarryingVehicle	D2Identifiable DGTransport (name change)
	D2Identifiable DGCarryingVehicle.signature added
Class DGFolder	D2Class DGAccompanyingInformation (name change)
Class InternationalIdentifier	D2Class InternationalIdentifier deleted since appropriate attributes are already available in the D2ModelRoot PayloadPublication (see figure below)



2.2 D2Package DGTransportUnit

Version 2.3	Version 3.0
Class Vehicle	Class Vehicle.anonymizedVehicleReference: String [0..1] has been added

2.3 D2Package DGDynamicInformation

Version 2.3	Version 3.0
PointByCoordinates.bearing Datatype NonNegativeInteger [0..1]	PointByCoordinates.bearing Datatype AngleInDegrees [0..1]
Class Vehicle	D2Attribute Vehicle.anonymizedVehicleReference: String [0..1] has been added
D2Class DGTDateTime	D2Class DGTDateTime deleted. Appropriate DateTime attributes were added to D2Classes

	DGLoadInformationDynamic and DGVehicleInformationDynamic
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2.4 D2Package DGAccompanyingInformation

Version 2.3	Version 3.0
	D2Class CoolingSubstances added due to regulation update, see Annex 2
	D2Class ExceptedQuantities added due to regulation update, see Annex 2
	D2Class ExceptedPackagesClass7 added due to regulation update, see Annex 2
	D2Class UnitFumigation added due to regulation update, see Annex 2

2.5 D2Package DGTransportDocument

Version 2.3	Version 3.0
	D2Class DGClassificationFireworks added due to regulation update, see Annex 1
	D2Class ApprovalCertificateIDMark added as extract from D2Class DGConsignmentDescriptionStaticClass7 due to regulation update, see Annex 1
	D2Class DGSpecialProvision and several Specialisations added due to regulation update, see Annex 1
	Type of D2Attribute DGConsignmentDescriptionStatic. environmentallyHazardousSubstance changed due to regulation update, see Annex 1
	D2Attribute QuantitiesPerShipment. totalQuantityPerCategoryPerTransportUnit added due to regulation update, see Annex 1

2.6 D2Package DGTEmpyUncleanedContainments

Version 2.3	Version 3.0
	D2Attribute EmptyUncleaned.EmptyUncleanedContainmentType added due to regulation update, see Annex 1
	D2Class EmptyUncleanedLarge added due to regulation update, see Annex 1
	D2Attribute EmptyPackaging.EmptyPackagingType added due to regulation update, see Annex 1
D2Class EmptyPackagingClass3To6	D2Class EmptyPackagingClass3To6And8To9 (name change)

2.7 D2Package DGDescriptionDetails

Version 2.3	Version 3.0
	D2Class UNNumber added as extract from D2Class DGDescriptionDetails due to regulation update, see Annex 1
	D2Class ProperShippingNamer added as extract from D2Class DGDescriptionDetails due to regulation update, see Annex 1
	D2Class DGDescriptionClass9 added due to regulation update, see Annex 1
Class RadioactiveContent	D2Class DGDescriptionRadioactiveContent (name change)

2.8 D2Package Datatypes

Version 2.3	Version 3.0
D2Datatype BICCodesType	Facet <xs:pattern value="[A-Z][A-Z][A-Z][JUZ][0-9][0-9][0-9][0-9][0-9][0-9][0-9]" /> added
BargelIdentType	Facet to be defined!
ContainerIdentType	Facet to be defined!
	D2Datatype VehicleCountryCodeType introduced due to regulation update
	D2Datatype CompetentAuthorityIdentificationType introduced due to regulation update
	D2Datatype XMLDsigSchemaType introduced due to signature inclusion

2.9 D2Package Enumerations

Version 2.3	Version 3.0
D2Package Subdivisions	Package deleted, D2Enumeration Class1CompatibilityGroupEnum and D2Enumeration Class1DivisionEnum shifted to D2Package Enumerations
D2Enumeration BulkContainerTypeEnum	Literals adapted due to DATEX II conventions (starting with lower case letter, no special characters allowed)
D2Enumeration CarriagetIAWEnum	Literals adapted due to DATEX II conventions
D2Enumeration DangerLabelEnum	Literals adapted due to DATEX II conventions
D2Enumeration DgtDenyReason	Enumeration deleted, since exchange is separated from the data model

D2Enumeration DgtRequestTypeEnum	Enumeration deleted, since exchange is separated from the data model
D2Enumeration DgtResponseEnum	Enumeration deleted, since exchange is separated from the data model
D2Enumeration LoadEventEnum	Definition not related to WDW table
D2Enumeration PackageCategoryEnum	Literals adapted due to DATEX II conventions
D2Enumeration PackingGroupEnum	Literals adapted due to DATEX II conventions
D2Enumeration SpecialProvision640Enum	Literals adapted due to DATEX II conventions
D2Enumeration TunnelRestrictionCodeEnum	Literals adapted due to DATEX II conventions
D2Enumeration VehicleEventEnum	Definition not related to WDW table
D2Enumeration WagonTypeEnum	Literals adapted due to DATEX II conventions
D2Enumeration DangerLabelEnum	D2Enumeration DangerLabelEnum, literal 9A added due to regulation update
	D2Enumeration EmptyPackagingTypeEnum introduced due to regulation update
	D2Enumeration EmptyUncleanedContainmentTypeEnum introduced due to regulation update
	D2Enumeration EmptyUncleanedContainmentLargeTypeEnum introduced due to regulation update
	D2Enumeration EnvironmentallyHazardousSubstanceTypeEnum introduced due to regulation update
D2Enumeration CarriagetlAWEEnum	D2Enumeration CarriagetlAWEEnum, literal added due to regulation update

3. Changes in future to be agreed

3.1 Links between D2Class DangerousGoodsDocuments::Carrier and ConnectingCarrier

If an alignment with Eu-Custom Code like the eFTI proposal is required, then 2 other links with a name respectively „masterLevel“, and „houseLevel“ should be introduced.

3.2 Type Any can be enhanced

The type Any is seen as a blob.

To decrease the volume of data exchanged, it could be replaced by instance by :

- Image JPG with a dimension, a level of compression as the same algorithms that WhatsApp or Telegram
- Dynamic URL link with a limited time of use which contain a key which can be a hash of the ID of the DGTransport and the time of the request and the ID of the requester

Annex 1 List of regulation updates, 05/05/2020

No.	Amendment applicable from	Documents	Amendment As taken from documents for ADR (EXE/TRANS/WP.15...), re-checked with RID notification document and published AND version	Remarks (G. Schwan) Red= needs to be checked Green= no influence on data model Purple = Remark C. Lüpkes
1.	1.1.2011	ECE/TRANS/WP.15/204 + ECE/TRANS/WP.15/204/Corr.1 + OTIF/RID/NOT/2011 + ADN 2011	New SP 356:"::: The transport document shall include an indication that the package was approved by the competent authority of the country of manufacture or a copy of the competent authority of the country of manufacture1 approval shall accompany each consignment."	Additional information for transport operation in accordance with that SP, alternative information is an option- alternative: additional (paper)documentation Solved, new class DGSpecialProvision with generalisations
2.		ECE/TRANS/WP.15/204 + ECE/TRANS/WP.15/204/Corr.1 + OTIF/RID/NOT/2011 + ADN 2011	5.4.1.1.3 In the first paragraph, delete "the UN number and".	Refers to sequence in transport document: deletes one option for position of term "WASTE" –precedes PSN (not UN No) Solved, already covered through DGConsignmentDescriptionStatic:waste:Boolean
3.		ECE/TRANS/WP.15/204 + ECE/TRANS/WP.15/204/Corr.1 + OTIF/RID/NOT/2011 + ADN 2011	5.4.1.1.6.1 At the end, replace "proper shipping name required in 5.4.1.1.1 (b)" with "dangerous goods description specified in 5.4.1.1.1 (a) to (d) and (k)".	Concerns sequence in transport document (position of EMPTY UNCLEANED or RESIDUE, LAST CONTAINED in the description) Solved, attribute added: EmptyUncleaned: EmptyUncleanedContainmentType and new Enum EmptyUncleanedContainmentTypeEnum
4.		ECE/TRANS/WP.15/204 + ECE/TRANS/WP.15/204/Corr.1 + OTIF/RID/NOT/2011 + ADN 2011	New 5.4.1.1.18 "When a substance belonging to one of classes 1 to 9 meets the classification criteria of 2.2.9.1.10, the transport document shall bear the additional inscription "ENVIRONMENTALLY HAZARDOUS". This additional requirement does not apply to UN Nos. 3077 and 3082 or for the exceptions listed in 5.2.1.8.1. The inscription "MARINE POLLUTANT" (according to 5.4.1.4.3 of the IMDG Code) instead of "ENVIRONMENTALLY HAZARDOUS" is acceptable for carriage in a transport chain including maritime carriage."	Additional information "ENVIRONMENTALLY HAZARDOUS" or "MARINE POLLUTANT" But in 2013 a third option "MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS" was introduced Solved, see (12)
5.		ECE/TRANS/WP.15/204 + ECE/TRANS/WP.15/204/Corr.1 + OTIF/RID/NOT/2011 + ADN 2011	5.4.1.2.1 Amend sup-paragraph (g) to read as follows: "(g) When fireworks of UN Nos. 0333, 0334, 0335, 0336 and 0337 are carried, the transport document shall bear the inscription: "Classification of fireworks by the competent authority of XX with the firework reference XX/YYZZZZ".	Additional information for some types of firework Solved: new class DGClassificationFireworks with appropriate attributes and datatypes added. Connected to class DGDocumentClass1

6.		ECE/TRANS/WP.15/204 + ECE/TRANS/WP.15/204/Corr.1 + OTIF/RID/NOT/2011 + ADN 2011	5.4.1.2.5.1 (c) Amend to read as follows: (c) The maximum activity of the radioactive contents during carriage expressed in becquerels (Bq) with an appropriate SI prefix symbol (see 1.2.2.1). For fissile material, the mass of fissile material (or mass of each fissile nuclide for mixtures when appropriate) in grams (g), or appropriate multiples thereof, may be used in place of activity;	No impact on transport document data model
7.		ECE/TRANS/WP.15/204 + ECE/TRANS/WP.15/204/Corr.1 + OTIF/RID/NOT/2011 + ADN 2011	5.4.1.2.5.1 (j) At the end, add: "For radioactive material for which the A2 value is unlimited, the multiple of A2 shall be zero."	No impact on transport document data model
8.		ECE/TRANS/WP.15/204/Add.1 + OTIF/RID/NOT/2011 + ADN 2011	5.4.1.1.4 Amend to read as follows: "5.4.1.1.4 (Deleted)".	5.4.1.1.4 had stated that information on LQ are not required in transport document No impact on transport document
9.		OTIF/RID/NOT/2011	RID: 5.4.1.1.12 Replace " 1 JANUARY 2009" by "1 JANUARY 2011"	RID only: For transport in accordance with transitional period additional information, date is updated with every amendment of RID
10.	1.1.2013	ECE/TRANS/WP.15/213+ ECE/TRANS/WP.15/213/Corr.1 + ECE/TRANS/WP.15/213/Corr.2 + OTIF/RID/NOT/2013 + ADN 2013	New SP 363 e) Where the means of containment has a capacity greater than 1500 litres, the machinery or equipment is placarded on all four external sides in accordance with 5.3.1.1.1, the requirement of 5.4.1 applies and the transport document includes the following additional statement: "Carriage in accordance with Special Provision 363".	Additional information for transport operation in accordance with that SP (Revision in 2017, but did not change content of this additional information) Solved, new class DGSpecialProvision with generalisations
11.		ECE/TRANS/WP.15/213+ ECE/TRANS/WP.15/213/Corr.1 + ECE/TRANS/WP.15/213/Corr.2 + OTIF/RID/NOT/2013 + ADN 2013	New 5.4.1.1.5 Special provisions for salvage packagings and salvage pressure receptacles When dangerous goods are carried in a salvage packaging or salvage pressure receptacle, the words "SALVAGE PACKAGING" or "SALVAGE PRESSURE RECEPTACLE" shall be added after the description of the goods in the transport document."	Additional information for salvage packaging Solved, no implication on Data Model: Attribute DGConsignmentDescriptionStatic.salvagePackage:Boolean indicates salvage packagings. Attribute DGConsignmentDescriptionStatic.packageTypeDescription:MultilingualString allows the required description.

12.		ECE/TRANS/WP.15/2 13+ ECE/TRANS/WP.15/2 13/Corr.1 + ECE/TRANS/WP.15/2 13/Corr.2 + OTIF/RID/NOT/2013 + ADN 2013	Amendment of 5.4.1.1.18 In the first sub-paragraph after "ENVIRONMENTALLY HAZARDOUS", insert: "or "MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS"". In the second sub-paragraph, delete: "instead of "ENVIRONMENTALLY HAZARDOUS""	3 rd option for information "MARINE POLLUTANT" or "ENVIRONMENTALLY HAZARDOUS" or "MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS" Solved, attribute type DGConsignmentDescriptionStatic. environmentallyHazardousSubstance:Boolean changed to DGConsignmentDescriptionStatic. environmentallyHazardousSubstance:environ mentallyHazardousSubstanceType Appropriate new Enumeration environmentallyHazardousSubstanceType added
13.		ECE/TRANS/WP.15/2 13/Add.1 ECE/TRANS/WP.15/2 13/Add.1/Corr.1	-	No impact on transport document
14.		OTIF/RID/NOT/2013	RID: 5.4.1.1.12 Replace " 1 JANUARY 2011" by "1 JANUARY 2013	RID only: For transport in accordance with transitional period additional information, date is updated with every amendment of RID
15.	1.1.2015	ECE/TRANS/WP.15/2 22 + ECE/TRANS/WP.15/2 22/Corr.1+ OTIF/RID/NOT/2015 + ADN 2015	"172 Where a radioactive material has (a) subsidiary risk(s): ... (c) For the purposes of documentation and package marking, the proper shipping name shall be supplemented with the name of the constituents which most predominantly contribute to this (these) subsidiary risk(s) and which shall be enclosed in parenthesis; (d) The dangerous goods transport document shall indicate the label model number(s) corresponding to each subsidiary risk in parenthesis after the Class number "7" and, where assigned the packing group as required by 5.4.1.1.1 (d).	Description " SUBSIDIARY RISK" no longer required Solved, already covered through the usage of class DGConsignmentDescriptionStaticClass7
16.		ECE/TRANS/WP.15/2 22 + ECE/TRANS/WP.15/2 22/Corr.1+ OTIF/RID/NOT/2015 + ADN 2015	SP251 Insert the following new third paragraph (after "to any individual substance in the kit."): "Where the kit contains only dangerous goods to which no packing group is assigned, no packing group need be indicated on the dangerous goods transport document."	In some cases indication of PG not required, no impact on transport document data model

17.		ECE/TRANS/WP.15/22 + ECE/TRANS/WP.15/22/Corr.1+ OTIF/RID/NOT/2015 + ADN 2015	<p>New SP 367 For the purposes of documentation:</p> <p>The proper shipping name "Paint related material" may be used for consignments of packages containing "Paint" and "Paint related material" in the same package;</p> <p>The proper shipping name "Paint related material, corrosive, flammable" may be used for consignments of packages containing "Paint, corrosive, flammable" and "Paint related material, corrosive, flammable" in the same package;</p> <p>The proper shipping name "Paint related material, flammable, corrosive" may be used for consignments of packages containing "Paint, flammable, corrosive" and "Paint related material, flammable, corrosive" in the same package; and</p> <p>The proper shipping name "Printing ink related material" may be used for consignments of packages containing "Printing ink" and "Printing ink related material" in the same package."</p>	Facilitation for PSN with different products of same UN No in same package, no impact on transport document data model
18.		ECE/TRANS/WP.15/22 + ECE/TRANS/WP.15/22/Corr.1+ OTIF/RID/NOT/2015 + ADN 2015	<p>New SP 373 Neutron radiation detectors containing non-pressurized boron trifluoride gas may be carried under this entry provided that the following conditions are met:</p> <p>...</p> <p>The transport document shall include the following statement "Carriage in accordance with special provision 373".</p>	<p>Additional information for transport operation in accordance with that SP</p> <p>Solved, new class DGSpecialProvision with generalisations</p>
19.		ECE/TRANS/WP.15/22 + ECE/TRANS/WP.15/22/Corr.1+ OTIF/RID/NOT/2015 + ADN 2015	<p>New SP: 662 Cylinders not conforming to the provisions of Chapter 6.2 which are used exclusively on board a ship or aircraft,</p> <p>...</p> <p>The transport document shall include the following statement: "Carriage in accordance with special provision 662".</p>	<p>Additional information for transport operation in accordance with that SP</p> <p>Solved, new class DGSpecialProvision with generalisations</p>

20.		ECE/TRANS/WP.15/22 + ECE/TRANS/WP.15/22/Corr.1	<p>ADR: New SP 664 When substances under this entry are carried in fixed tanks (tank-vehicles) or demountable tanks, these tanks may be equipped with additive devices.</p> <p>...</p> <p>Only the information required in accordance with 5.4.1.1.1 (a) to (d) needs to be added to the transport document for the additive concerned. The following shall also be entered in the transport document: "Carriage in accordance with special provision 664".</p>	<p>ADR only: Additional information for transport operation in accordance with that SP + reduced dangerous goods description for additive (only elements 5.4.1.1.1 (a) to (d) – See revision 2017</p> <p>Solved, new class DGSpecialProvision with generalisations</p>
21.		ECE/TRANS/WP.15/22 + ECE/TRANS/WP.15/22/Corr.1+ OTIF/RID/NOT/2015 + ADN 2015	<p>5.4.1.1.3 Amend the third paragraph to read as follows:</p> <p>"If the provision for waste as set out in 2.1.3.5.5 is applied, the following shall be added to the dangerous goods description required in 5.4.1.1.1 (a) to (d) and (k):".</p>	Refers to sequence in transport document (position of WASTE IN ACCORDANCE WITH 2.1.3.5.5 – clarification, probably no impact on data model
22.		ECE/TRANS/WP.15/22 + ECE/TRANS/WP.15/22/Corr.1+ OTIF/RID/NOT/2015 + ADN 2015	<p>5.4.1.1.17 After "(x)", add a reference to a footnote 1 to read as follows:</p> <p>"1 (x) shall be replaced with "1" or "2" as appropriate."</p>	Clarification, no impact on data model
23.		ECE/TRANS/WP.15/22 + ECE/TRANS/WP.15/22/Corr.1+ OTIF/RID/NOT/2015 + ADN 2015	<p>New 5.4.1.1.19 Special provisions for carriage of packagings, discarded, empty, uncleaned(UN 3509)</p> <p>For packagings, discarded, empty, uncleaned, the proper shipping name specified in 5.4.1.1.1 (b) shall be complemented with the words "(WITH RESIDUES OF [...])" followed by the class(es) and subsidiary risk(s) corresponding to the residues, in the class numbering order. Moreover, 5.4.1.1.1 (f) does not apply.</p> <p>Example: Packagings, discarded, empty, uncleaned having contained goods of Class 4.1 packed together with packagings, discarded, empty, uncleaned having contained goods of Class 3 with a Class 6.1 subsidiary risk should be referred to in the transport document as:</p> <p>"UN 3509 PACKAGINGS, DISCARDED, EMPTY, UNCLEANED (WITH RESIDUES OF 3, 4.1, 6.1), 9" .</p>	<p>New information elements for UN 3509</p> <p>Solved, new Attribute packagingDiscardedEmptyUncleaned DGConsignmentDescriptionStatic. packagingDiscardedEmptyUncleaned:Boolean added.</p>

24.			<p>5.4.1.2.5.1 Amend (f) to read as follows:</p> <p>“(f) For fissile material:</p> <p>(i) Shipped under one exception of 2.2.7.2.3.5 (a) to (f), reference to that paragraph;</p> <p>(ii) Shipped under 2.2.7.2.3.5 (c) to (e), the total mass of fissile nuclides;</p> <p>(iii) Contained in a package for which one of 6.4.11.2 (a) to (c) or 6.4.11.3 is applied, reference to that paragraph;</p> <p>(iv) The criticality safety index, where applicable;”.</p>	<p>New/amended information elements for fissile material</p> <p>Solved, additional Special Provisions according to 5.4.1.2.5.1 (f) (i) and (iii) added. 5.4.1.2.5.1 (f) (ii) and (iv) are already covered in the model.</p>
25.		ECE/TRANS/WP.15/22/Add.1+ ECE/TRANS/WP.15/22/Add.1/Corr.1	-	No impact on transport document
26.		OTIF/RID/NOT/2015	RID: 5.4.1.1.12 Replace “1 JANUARY 2015” by “1 JANUARY 2013”	RID only: For transport in accordance with transitional period additional information, date is updated with every amendment of RID
27.	1.1.2017	ECE/TRANS/WP.15/231 + ECE/TRANS/WP.15/231/Corr.1 + OTIF/RID/NOT/2017 + ADN 2017	<p>SP 310 Amend to read as follows:</p> <p>“310 The testing requirements in the Manual of Tests and Criteria, part III sub-section 38.3 do not apply to production runs, consisting of not more than 100 cells and batteries, or to pre-production prototypes of cells and batteries when these prototypes are carried for testing when packaged in accordance with packing instruction P910 of 4.1.4.1</p> <p>The transport document shall include the following statement: “Carriage in accordance with special provision 310”.</p>	<p>Additional information for transport operation in accordance with that SP</p> <p>Solved, new class DGSpecialProvision with generalisations</p>
28.		ECE/TRANS/WP.15/231 + ECE/TRANS/WP.15/231/Corr.1 + OTIF/RID/NOT/2017 + ADN 2017	<p>Revision of SP 363...</p> <p>(vi) A transport document in accordance with 5.4.1 is required only when the engine or machinery contains more than 1 000 l of liquid fuels, for UN 3528 and UN 3530, or the fuel tank has a water capacity of more than 1 000 l, for UN 3529.</p> <p>This transport document shall contain the following additional statement “Transport in accordance with special provision 363”.</p>	<p>Revision on existing requirements for additional information for transport operation in accordance with that SP, assigned to new entries for engines instead of entries for fuels, limit for document requirement decreased to > 1000l</p> <p>Solved, new class DGSpecialProvision with generalisations</p>

29.	ECE/TRANS/WP.15/231 + ECE/TRANS/WP.15/231/Corr.1 + OTIF/RID/NOT/2017 + ADN 2017	New SP 378 ... (g) The transport document includes the following statement "Transport in accordance with special provision 378".	Additional information for transport operation in accordance with that SP Solved, new class DGSpecialProvision with generalisations
30.	ECE/TRANS/WP.15/231 + ECE/TRANS/WP.15/231/Corr.1 + OTIF/RID/NOT/2017 + ADN 2017	5.4.1.1.1 (c) Insert a new third indent as follows: "– for lithium batteries of UN numbers 3090, 3091, 3480 and 3481: the Class number "9";"	Consequential amendment due to introduction new label No. 9A, no impact on transport document data model New class DGDescriptionClass9 added and label No. 9A attached to DangerLabelEnum
31.	ECE/TRANS/WP.15/231 + ECE/TRANS/WP.15/231/Corr.1 + OTIF/RID/NOT/2017 + ADN 2017	5.4.1.1.6.2.1 Amend last paragraph to read as follows: "In addition, in such a case: (a) If the dangerous goods last loaded are goods of Class 2, the information prescribed in 5.4.1.1.1 (c) may be replaced by the number of the class "2"; (b) If the dangerous goods last loaded are goods of Classes 3, 4.1, 4.2, 4.3, 5.1, 5.2, 6.1, 8 or 9, the information of the goods last loaded, as described in 5.4.1.1.1 (c) may be replaced by the words "WITH RESIDUES OF [...]" followed by the class(es) and subsidiary risk(s) corresponding to the different residues, in the class numbering order. Example: Empty packagings, uncleaned, having contained goods of Class 3 carried together with empty packagings, uncleaned, having contained goods of Class 8 with a Class 6.1 subsidiary risk may be referred to in the transport document as: "EMPTY PACKAGINGS, WITH RESIDUES OF 3, 6.1, 8".	Option for new information element WITH RESIDUES OF [...] Ggf. Prüfen, da Logik EmptyPackaging; Neue Klasse -> unter EmptyPackaging -> EPwRes EmptyUncleanedWithResidues New class and attribute EmptyUncleanedLarge: EmptyUncleanedContainmentLargeType and appropriate enumeration added
32.	ECE/TRANS/WP.15/231 + ECE/TRANS/WP.15/231/Corr.1 + OTIF/RID/NOT/2017 + ADN 2017	"5.4.1.1.20 Special provisions for the carriage of substances classified in accordance with 2.1.2.8 For carriage in accordance with 2.1.2.8, a statement shall be included in the transport document, as follows "Classified in accordance with 2.1.2.8".	Additional information for substances with a classification deviating from classification according to DGL Solved, relevant for specific substances: therefore, new class CarriageAW2x1x2x8 in terms of class DGSpecialProvision added.

33.		ECE/TRANS/WP.15/231 + ECE/TRANS/WP.15/231/Corr.1 + OTIF/RID/NOT/2017 + ADN 2017	5.4.1.1.21 Special provisions for the carriage of UN Nos. 3528, 3529 and 3530 For carriage of UN Nos. 3528, 3529 and 3530, the transport document, when required according to special provision 363 of Chapter 3.3, shall contain the following additional statement "Transport in accordance with special provision 363".	Repetition of requirement in SP 363, existing requirement for additional information for transport operation in accordance with that SP
34.		ECE/TRANS/WP.15/231 + ECE/TRANS/WP.15/231/Corr.1 + OTIF/RID/NOT/2017 + ADN 2017	5.4.1.2.2(d) Amend to read as follows: "(d) In the case of tank-containers carrying refrigerated liquefied gases the consignor shall enter in the transport document the date at which the actual holding time ends, in the following format: "End of holding time: (DD/MM/YYYY)".	ADR/AND: New, additional information, RID: Revision of existing information Attribute for Cass2 already existing = valvesClosedUntil
35.		ECE/TRANS/WP.15/231/Add.1	ADR: Special provision 664 (e) Replace the last sentence by "In this case, the remark "additive device" shall be added to the transport document	ADR only: Additional information element "Carriage in accordance with special provision 664"replaced by "ADDITIVE DEVICE", reduced dangerous goods description for additive (only elements 5.4.1.1.1 (a) to (d) remains unchanged Solved, new class DGSpecialProvision with generalisations
36.		ECE/TRANS/WP.15/231/Add.1+ OTIF/RID/NOT/2017 + ADN 2017	"4.3.2.3.7 Fixed tanks (tank-vehicles), demountable tanks, battery-vehicles, tank-containers, tank swap bodies and MEGCs may not be filled or offered for carriage after the deadline for the test or inspection required by 6.8.2.4.2, 6.8.3.4.6 and 6.8.3.4.10 has expired. However, fixed tanks (tank-vehicles), demountable tanks, battery-vehicles, tank-containers, tank swap bodies and MEGCs filled prior to the date of expiry of the last periodic inspection may be carried: (a) for a period not to exceed one month after the expiry of these deadlines; (b) unless otherwise approved by the competent authority, for a period not to exceed three months after the expiry of these deadlines in order to allow the return of dangerous goods for proper disposal or recycling. Reference to this exemption shall be mentioned in the transport document."	Additional information for transport operation in accordance with 4.3.2.3.7 Solved, additional literal added to enumeration CarriageIAWEnum

37.		ECE/TRANS/WP.15/2 31/Add.1+ OTIF/RID/NOT/2017 + ADN 2017	<p>Amended 5.4.1.1.11 Special provisions for the carriage of IBCs, tanks, battery-vehicles, portable tanks and MEGCs after the date of expiry of the last periodic test or inspection</p> <p>For carriage in accordance with 4.1.2.2 (b), 4.3.2.3.7 (b), 6.7.2.19.6 (b), 6.7.3.15.6 (b) or 6.7.4.14.6 (b), a statement to this effect shall be included in the transport document, as follows:</p> <p>"CARRIAGE IN ACCORDANCE WITH 4.1.2.2 (b)",</p> <p>"CARRIAGE IN ACCORDANCE WITH 4.3.2.3.7 (b)",</p> <p>"CARRIAGE IN ACCORDANCE WITH 6.7.2.19.6 (b)",</p> <p>"CARRIAGE IN ACCORDANCE WITH 6.7.3.15.6 (b)"; or</p> <p>"CARRIAGE IN ACCORDANCE WITH 6.7.4.14.6 (b)" as appropriate.</p>	<p>Additional information for transport operation in accordance with that 4.3.2.3.7, see line above</p> <p>Solved, additional literal added to enumeration CarriageItemAWEnum</p>
38.		OTIF/RID/NOT/2017	RID: 5.4.1.1.12 Replace " 1 JANUARY 2015" by "1 JANUARY 2017"	RID only: For transport in accordance with transitional period additional information, date is updated with every amendment of RID
39.	1.1.2019	ECE/TRANS/WP.15/2 40 + ECE/TRANS/WP.15/2 40/Corr.1 +ADN 2019	<p>ADR/ADN: 3.1.2.6 Add the following new subparagraph</p> <p>"(b) Unless it is already included in capital letters in the name indicated in Column</p> <p>(2) of Table A in Chapter 3.2, the words "TEMPERATURE CONTROLLED" shall be added as part of the proper shipping name;".</p>	<p>ADR/ADN: Additional information TEMPERATURE CONTROLLED to supplement PSN. Railway transport prohibited, therefore not in RID</p> <p>Solved, this can be derived from attribute DGConsignmentDescriptionStatic.controlTemp Stabilized</p>
40.		ECE/TRANS/WP.15/2 40 + ECE/TRANS/WP.15/2 40/Corr.1 + OTIF/RID/NOT/2019 +ADN 2019	Amendment to SP 251: In the third paragraph, insert a new first sentence to read as follows: "For the purposes of completion of the transport document as set out in 5.4.1.1.1, the packing group shown on the document shall be the most stringent packing group assigned to any individual substance in the kit."	No impact on transport document, defines determination of PG

41.		ECE/TRANS/WP.15/240 + ECE/TRANS/WP.15/240/Corr.1 +ADN 2019	<p>Amendment to SP 363 "(I) When the engine or machinery contains more than 1 000 l of liquid fuels, for UN No. 3528 and UN No. 3530, or the fuel tank has a water capacity of more than 1 000 l, for UN No. 3529:</p> <p>- A transport document in accordance with 5.4.1 is required. This transport document shall contain the following additional statement "Transport in accordance with special provision 363";</p> <p>- When the carriage is known beforehand to pass through a tunnel with restrictions for carriage of dangerous goods, the transport unit shall display orange-coloured plates according to 5.3.2 and the tunnel restrictions according to 8.6.4 apply."</p>	Editorial revision in ADR/AND refers to existing requirement, RID unchanged, no impact on transport document data model
42.		ECE/TRANS/WP.15/240 + ECE/TRANS/WP.15/240/Corr.1 + OTIF/RID/NOT/2019 +ADN 2019	Amendment to SP 376: The transport document shall include the following statement "Transport in accordance with special provision 376".	<p>Additional information for transport operation in accordance with that SP</p> <p>Solved, new class DGSpecialProvision with generalisations</p>
43.		ECE/TRANS/WP.15/240 + ECE/TRANS/WP.15/240/Corr.1 + OTIF/RID/NOT/2019 +ADN 2019	<p>New SP 392:</p> <p>...</p> <p>(h) Notwithstanding the provisions of 5.4.1.1.1 (f) the information on the total quantity of dangerous goods may be replaced by the following information:</p> <p>(i) The number of fuel gas containment systems; and</p> <p>(ii) In the case of liquefied gases the total net mass (kg) of gas of each fuel gas containment system and, in the case of compressed gases, the total water capacity (l) of each fuel gas containment system followed by the nominal working pressure.</p> <p>Examples for information in the transport document:</p> <p>Example 1: "UN 1971 natural gas, compressed, 2.1, 1 fuel gas containment system of 50 l in total, 200 bar".</p> <p>Example 2: "UN 1965 hydrocarbon gas mixture, liquefied, n.o.s., 2.1, 3 fuel gas containment systems, each of 15 kg net mass of gas".</p>	<p>Simplified dangerous goods description for transport operations in accordance with that SP. SP 392 replaces SP 660 which referred to a document, not to the document according to chapter 5.4</p> <p>Solved, new class DGSpecialProvision with generalisations</p>

44.		ECE/TRANS/WP.15/240 + ECE/TRANS/WP.15/240/Corr.1	ADR: 5.4.1.1.1 (f) Amend Note 1 to read as follows: "NOTE 1: In the case of intended application of 1.1.3.6, the total quantity and the calculated value of dangerous goods for each transport category shall be indicated in the transport document in accordance with 1.1.3.6.3 and 1.1.3.6.4."	ADR only: Additional information for some transport operation Solved, attribute QuantitiesPerShipment.totalQuantityPerCategoryPerTransportUnit [0..5] added.
45.		ECE/TRANS/WP.15/240/Add.1	-	No impact on transport document
46.		OTIF/RID/NOT/2019	RID: 5.4.1.1.12 Replace " 1 JANUARY 2017" by "1 JANUARY 2019"	RID only: For transport in accordance with transitional period additional information, date is updated with every amendment of RID

Annex 2 Information required during transport in other documents than in 5.4.1, 20/05/2020

No.	Para	Text	Remarks (G. Schwan) Red= needs to be checked Green= no influence on data model Purple = Comment Christian Lüpkes
1.	3.5.6	If a document or documents (such as a bill of lading, air waybill or CMR/CIM consignment note) accompanies(y) dangerous goods in excepted quantities, at least one of these documents shall include the statement "Dangerous Goods in Excepted Quantities"	The information (data) is required during transport, but it can be any document. Linked with eCMR. Data model should be checked to cover this. Solved, new Class ExceptedQuantities related to Class DGFoldr
2.	4.1.8.3	An itemized list of contents shall be enclosed between the secondary packaging and the outer packaging. When the infectious substances to be carried are unknown but suspected of meeting the criteria for inclusion in Category A, the words "suspected Category A infectious substance" shall be shown in parenthesis, following the proper shipping name on the document inside the outer packaging	Not covered, but provision requires physical presence of additional document as part of packaging. On this basis no need to include requirement in data model
3.	5.1.5.4.2	The documentations requirements of Chapter 5.4 do not apply to excepted packages of radioactive material of Class 7 except that: (a) the Un Number preceded by the letters "UN" and the name and the address of the consignor and the consignee, and, if relevant, the identification mark for each competent authority certificate of approval (see 5.4.1.2.5.1 (g)) shall be shown on a transport document such as a bill of lading, air waybill or CMR or CIM consignment note; (b) if relevant, the requirements of 5.4.1.2.5.1 (g), 5.4.1.2.5.3 and 5.4.1.2.5.4 shall apply; (c) The requirements of 5.4.2 and 5.4.4 shall apply.	The information (data) is required during transport, but it can be any document. Linked with eCMR. Data model should be checked to cover this. Solved, new Class ExceptedPackagesClass7 related to Class DGFoldr. Requirements have been fulfilled by connecting the class with appropriate defined elements. For the reuse of UN-Number and Proper Shipping Name had to be separated from Class DGDescriptionDetails. ApprovalCertificateIDMark had to be separated from Class DGConsignmentDescriptionStaticClass7
4.	5.4.1.2.1.c, d, e	Competent Authority approval for class1	Covered by class CertificateofApproval – attribute any
5.	5.4.2	Container/Vehicle Packing Certificate	Covered by Class ContainerPackingCertificate
6.	5.4.3	Instructions in Writing	Covered by class INstructionsInWriting
7.	5.5.2.4.1	Documents associated with the carriage of cargo transport units that have been fumigated and have not been completely ventilated before carriage shall include the following information: "UN 3359, fumigated cargo transport unit, 9" or "UN 3359, fumigated cargo transport unit, class 9" The date and time of fumigation; and The type and amount of the fumigant used	The information (data) is required during transport, but it can be any document. Linked with eCMR. Data model should be checked to cover this. Solved, additional Class UnitFumigation related to Class DGFoldr For the reuse of UN-Number and Proper Shipping Name had to be separated from Class DGDescriptionDetails.

8.	5.5.3.7.1	<p>Documents (such as a bill of lading, cargo manifest or CMR/CIM consignment note) associated with the carriage of vehicles or containers containing or having contained substances used for cooling or conditioning purposes and have not been completely ventilated before carriage shall include the following information</p> <p>(a) the UN number preceded by the letters "UN"; and</p> <p>(b) The name indicated in Column (2) of Table A of Chapter 3.2 followed by the words "AS COOLANT" or "AS CONDITIONER".....</p>	<p>The information (data) is required during transport, but it can be any document. Linked with eCMR. Data model should be checked to cover this.</p> <p>Solved, additional Class CoolingSubstances related to Class DGFolder</p> <p>For the reuse of UN-Number and Proper Shipping Name had to be separated from Class DGDDescriptionDetails.</p>
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