IMDG Code - Coded Variant List Presentation to SMDG Group

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EXIS
TECHNOLOGIES

Exis Technologies

- Leading supplier of computerised systems for the management of dangerous goods

- Over 25 years experience of supporting major shipping lines, logistics companies, shippers, ports and terminals, government and regulatory organisations worldwide. Customers include 16 of the top 20 container lines and 20 of the top ferry/RORO companies

- Supplies an integrated range of systems and tools under the Hazcheck brand Automated packing and segregation checks

- IMDG Code e-learning courses to meet the mandatory IMDG Code training requirements

- Producers of the electronic IMDG Code; the data source for Hazcheck systems

- Suppliers and developers of the CINSnet database and portal

Hazcheck Systems ✓ IMDG Code e-learning - On Land

New 2000+ free downloads in 2012

Ports terminals
- ABP
- Marseille
- Poole
- Portsmouth
- Bristol
- Rotterdam (RST)
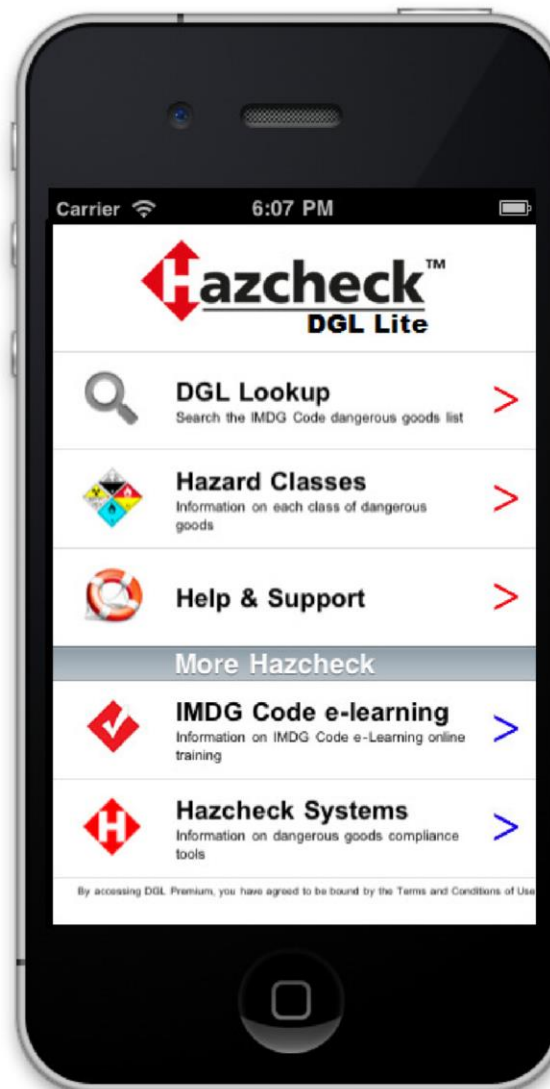- Dunkirk
- Sydney
- Melbourne
- Brisbane
- Freemantle

Logistics/ Forwarders
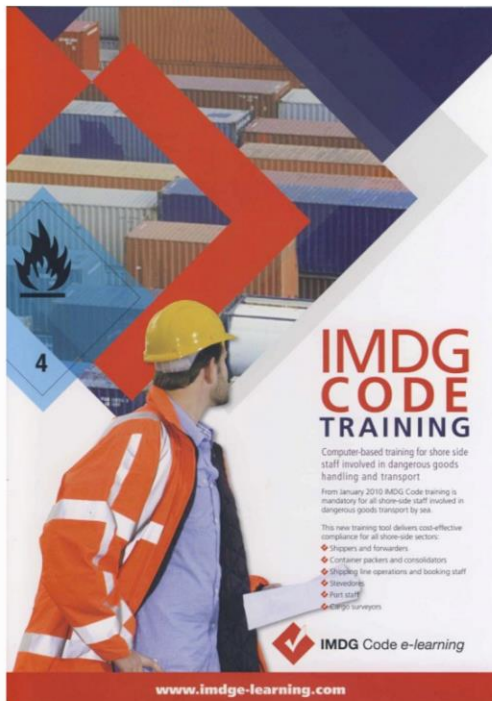- Agility
- DHL
- DSV
- Damco

Authorities
- Australia
- Israel
- UK
- New Zealand
- Hong Kong
- Panama

IMDG Code *e-learning*

Computer-based training for shore side staff involved in dangerous goods handling and transport. Training for shoreside staff is mandatory under the IMDG Code

Cost-effective compliance for all shore side sectors:-
• Shippers and forwarders
• Container packers and consolidators
• Shipping line operations and booking staff
• Stevedores
• Port staff
• Cargo surveyors

49CFR Module for USA shipment
ADR Module due Q1 2013

Container Packing Course (Due Q2 2013)

IMDG CODE TRAINING

Computer-based training for shore side staff involved in dangerous goods handling and transport

From January 2010 IMDG Code training is mandatory for all shore-side staff involved in dangerous goods transport by sea.

This new training tool delivers cost-effective compliance for all shore-side sectors:
◆ Shippers and forwarders
◆ Container packers and consolidators
◆ Shipping line operations and booking staff
◆ Stevedores
◆ Port staff
◆ Cargo surveyors

IMDG Code *e-learning*

www.imdge-learning.com

TT CLUB

ICHCA International Ltd

DNV

Hazcheck Systems

- ## Hazcheck Lite (App/Online)

  Free Dangerous goods list lookup

- ## Hazcheck Online

  for shippers and forwarders

- ## Hazcheck Workstation

  for shippers, port inspectors and shipping line booking staff

- ## Hazcheck Professional

  for ferry operators and feeder container lines

- ## Hazcheck Enterprise

  for deepsea container lines

- ## Hazcheck Gateway

  for internet global DG bookings, Restrictions and IMDG Code enquiry

- ## Hazcheck Toolkits

  for database and library of compliance check tools

Tools

Hazcheck DG database and Toolkits

Hazcheck Toolkits provides the building blocks for key Hazcheck functionality in Booking, DG and ship planning systems

Databases (to be used by your IT systems)

- IMDG Code Dangerous Goods List
- 49CFR data
- ADR data
- Packaging data
- Substance index
- Variant list for EDI Processes

Library of tools / Web services (for your IT systems)

- Aggregate stowage requirements for mixed loads
- Mixed load validation
- Segregation between loads
- Packaging and restrictions

Tools

Coded Variant List - Background

- Exis involved in EDI transmission with customers such as OOCL, Hapag Lloyd

- Exis supply databases to many of the top shipping and port companies

- Approach from SMDG to offer supply

- Development of the code

- Agreement of terms for free supply and maintenance

- Launch today at SMDG Group meeting

Coded Variant List - Why

- Layers of software in the transmission process that limits the information that can be exchanged automatically

- Differences in the DG information held in the DG databases

- Different versions of the IMDG Code data
  - New IMDG Code amendment
  - New IMDG Code errata

- Different implementation times

- Different data from various sources

Coded Variant List - Benefits

- All UN numbers which have IMDG Code variants

- World-wide unique variant code across all amendments and data versions

- Simplifies identification of a variant within a single UN number

- Removes ambiguities when exchanging EDI messages

- Common IMDG Code data to industry standard

- Download file to integrate CVL with existing systems

- Continuously updated in line with new IMDG Code amendments and errata

Coded Variant List – Code Structure

- 4 Character codes

- Each describes a single variant for a UN number

Character	Valid Characters	Description
1	0, 1, 2, 3	The packing group Code 0 indicates there is no packing group
2	0 to 9 and A to Z	A sequence letter for the PSN Code 0 indicates there are no alternative PSNs
3 and 4	0 to 9 and A to Z	Two sequence letters for other information, for the cases where the variant is required because of differences in subrisks, packing instruction etc.

Coded Variant List - Contents

UN Number	Variant Code	Description
1993	1000	Variants resulting from different Packing Groups I, II and III
	2000	
	3000	
1170	2100	Packing Group II and 4 PSNs: ETHANOL ETHYL ALCOHOL ETHANOL SOLUTION ETHYL ALCOHOL SOLUTION
	2200	
	2300	
	2400	
	3100	Packing Group III and 4 PSNs: ETHANOL ETHYL ALCOHOL ETHANOL SOLUTION ETHYL ALCOHOL SOLUTION
	3200	
	3300	
	3400	
0004	0001	Variants resulting from different Packing Instructions: P112(a) - Solid wetted, 1.1D P112(b) - Solid dry, other than powder 1.1D P112(c) - Solid dry powder 1.1D
	0002	
	0003	

Coded Variant List - Delivery

- The information will be made available as a CSV file suitable for import into MS Access, MS Excel or any application or database able to import a CSV file.

- The first record will have field names. The second and subsequent records will each represent a single variant.

Coded Variant List - Delivery

Field Name	Format	Description
UNNo	4 digits	UN number
Variant	4 alphanumeric characters	Variant Code
Name	Free Text	Proper Shipping Name
VarDesc	Free Text	Human readable variant description
ValidFrom	5 digits	Version of the data corresponding to when this variant is first valid to be used. The ValidFrom field is a 5-digit numeric value with the following structure: **Characters 1 and 2:** 2 digit IMDG Code Amendment, e.g. 35, 36, 37 **Character 3:** Errata or Note Verbale, e.g., 0, 1, 2 **Characters 4 and 5:** 2 digit number indicating the version of the data
ValidTo	5 digits	Version of the data corresponding to when this variant is last valid to be used. The ValidTo field is a 5-digit numeric value with a structure identical to that used for the ValidFrom field.

Coded Variant List - Example

UNNo: 1993

Variant: 1000

Name: FLAMMABLE LIQUID, N.O.S.

VarDesc: Packing group I.

ValidFrom: 35100

ValidTo

Coded Variant List - Example

Using vertical bar (|) as the delimiter (no text qualifier is needed):

Header record containing field names:
UNNo|Variant|Name|VarDesc|ValidFrom|ValidTo

Data records:
0014|0100|CARTRIDGES FOR WEAPONS, BLANK|Cartridges for weapons, blank.|35100|
0014|0200|CARTRIDGES, SMALL ARMS, BLANK|Cartridges, small arms, blank.|35100|
0014|0300|CARTRIDGES FOR TOOLS, BLANK|Cartridges for tools, blank.|36000|

0303|0001|AMMUNITION, SMOKE|Projectiles or cartridges… - not corrosive|35100|35100
0303|0002|AMMUNITION, SMOKE|Projectiles or cartridges… - corrosive.|35100|35100
0303|0003|AMMUNITION, SMOKE|Other types - not corrosive.|35100|35100
0303|0004|AMMUNITION, SMOKE|Other types - corrosive.|35100|35100

Coded Variant List – Mapping

0303|0005|AMMUNITION, SMOKE|Not corrosive smoke producing.|36000|

0303|0006|AMMUNITION, SMOKE|Corrosive smoke producing.|36000|

1090|2100|ACETONE|Acetone.|35100|35100

1090|2200|ACETONE SOLUTIONS|Acetone solutions.|35100|35100

Coded Variant List – EDI (IFTMBF)

At the DGS level (Segment Group 16, Goods Item Details) an optional FTX segment can be included,

FTX+AAC++UNNOSUFFIX+<variant>

For example,

FTX+AAC++UNNOSUFFIX+0201

By using both the UNNo and the variant code, a receiving system can look for a match with its own substance data. If a match is found, then the substance data (i.e. variant) identified within the receiving system is the same variant used in the sending system to produce the EDI file.

Coded Variant List – Mapping

The variant description is designed to provide all the information needed to identify the variant.

For a UNNo, this description provides all the information needed to match the CVL records with the same UNNo records in existing DG databases.

This can be shown using a few examples

Coded Variant List – Mapping

UN 0004 AMMONIUM PICRATE

Packing instruction P112(a), (b) or (c) is to be used depending on the substance composition:

P112(a) is applicable to "Solid wetted"

P112(b) is applicable to "Solid dry, other than powder"

P112(c) is applicable to "Solid dry powder"

The CVL has three variant codes for UN 0004 and uses the following codes and variation descriptions:

0001 Solid wetted

0002 Solid dry, other than powder

0003 Solid dry powder

Coded Variant List – Mapping

UN 0072 CYCLOTRIMETHYLENETRINITRAMINE (CYCLONITE), (RDX), (HEXOGEN), WETTED

UN 0072 has four alternative PSNs:

CYCLOTRIMETHYLENETRINITRAMINE, WETTED

CYCLONITE, WETTED

RDX, WETTED

HEXOGEN, WETTED

The CVL has four variant codes for UN 0072 and uses the following codes and variation descriptions:

0100 Cyclonite, wetted

0200 Cyclotrimethylenetrinitramine, wetted

0300 Hexogen, wetted

0400 RDX, wetted

Note that the PSNs are alphabetically sorted before the variant codes are assigned and that the variant codes are not guaranteed to be usable as a user interface display order.

Coded Variant List – Mapping

UN 0079 HEXANITRODIPHENYLAMINE (DIPICRYLAMINE), (HEXYL)

UN 0079 has three alternative PSNs and, for each PSN, packing instruction P112(b) or (c) is to be used depending on the substance composition

The CVL has six variant codes for UN 0079 and uses the following codes and variation descriptions:

0102 Dipicrylamine, solid dry, other than powder

0103 Dipicrylamine, solid dry powder

0202 Hexanitrodiphenylamine, solid dry, other than powder

0203 Hexanitrodiphenylamine, solid dry powder

0302 Hexyl, solid dry, other than powder

0303 Hexyl, solid dry powder

Note that the final characters of the variant codes are 2 (corresponding to packing instruction P112(b)) and 3 (corresponding to packing instruction P112(c)). This is done to maintain some consistency with UNNos that can have packing instructions (a), (b) or (c) - see UN 0004 above.

Coded Variant List – Mapping

UN 1950 AEROSOLS

UN 1950 has a large number of variants based on capacity, sub-risks and whether or not it is carried as waste:

The CVL has twenty seven variant codes for UN 1950 and uses the following codes and variation description groups:

For variants codes of the form 01xx the PSN is AEROSOLS

For variants codes of the form 02xx the PSN is AEROSOLS (above 1L)

For variants codes of the form 03xx the PSN is WASTE AEROSOLS

Coded Variant List – Mapping

Variants codes of the form 01xx, AEROSOLS

0101 Flammable, max. 1L

0102 Flammable, containing substances of class 6.1, max. 1L

0103 Flammable, containing substances of classes 6.1 and 8, max. 1L

0104 Flammable, containing substances of class 8, max. 1L

0105 Non-flammable, non-toxic, max. 1L

0106 Non-flammable, containing substances of class 6.1, max. 1L

0107 Non-flammable, containing substances of classes 6.1 and 8, max. 1L

0108 Non-flammable, containing substances of class 8, max. 1L

0109 Oxidizing, max. 1L

Coded Variant List – Mapping

Variants codes of the form 02xx, AEROSOLS (above 1L)

0201 Flammable, above 1L

0202 Flammable, containing substances of class 6.1, above 1L

0203 Flammable, containing substances of classes 6.1 and 8, above 1L

0204 Flammable, containing substances of class 8, above 1L

0205 Non-flammable, non-toxic, above 1L

0206 Non-flammable, containing substances of class 6.1, above 1L

0207 Non-flammable, containing substances of classes 6.1 and 8, above 1L

0208 Non-flammable, containing substances of class 8, above 1L

0209 Oxidizing, above 1L

Coded Variant List – Mapping

Variants codes of the form 03xx , WASTE AEROSOLS

0301 Waste, flammable

0302 Waste, flammable, containing substances of class 6.1

0303 Waste, flammable, containing substances of classes 6.1 and 8

0304 Waste, flammable, containing substances of class 8

0305 Waste, non-flammable, non-toxic

0306 Waste, non-flammable, containing substances of class 6.1

0307 Waste, non-flammable, containing substances of classes 6.1 and 8

0308 Waste, non-flammable, containing substances of class 8

0309 Waste, oxidizing

Coded Variant List – What if?

- A database may not store all the information available in the IMDG Code DGL, e.g. packing information - in this case UN 0004 may not have variants.

- A company may not carry all variants offered in the IMDG Code, e.g. a company may not carry UN 1950 AEROSOLS (above 1L).

- A company database may be multi-modal and have additional or different variants for different regulations, e.g. ADR.

Coded Variant List – Terms /Support

- ## Download,

  http://www.hazcheck.com/IMDG_Coded_Variant_List.asp

  ZIP file containing,

  - CVL.txt
  - IMDG Coded Variant List Release Notes for Amdt 36-12 V1.0.pdf
  - IMDG Coded Variant List Technical Description V1.0pdf
  - CVL Terms and Conditions.pdf

- ## Support

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Exis Technologies

Over 25 years experience of supporting major shipping lines, logistics companies, shippers, ports, governments and regulatory organisations worldwide

Currently working with 16 of the world's top 20 container lines

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