EXIS TECHNOLOGIES

User manual

Version 12

www.hazcheck.com

support@existec.com

CONTENTS

1 Introduction

This version of Hazcheck Gateway provides the ability to look up dangerous goods information in the following regulations:

IMDG Code (International Maritime Dangerous Goods Code)

49CFR (US Code of Federal Regulations Title 49)

ADR (European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR))

RID (Regulations concerning the International Carriage of Dangerous Goods by Rail ("RID", part of the Convention concerning International Carriage by Rail))

TDG (Canadian transport of dangerous goods regulations)

These regulations can be selected singular or in any combination.

The system also provides segregation checking to validate items in the **IMDG Code** only in terms of whether they are permitted in the same CTU and provide stowage comments and validation e.g. if the commodity is permitted in limited quantities or if it is permitted to shipped in a certain type of CTU.

2 Home page

Your system may be configured with a log-in page. If so, once you have logged in you will go to the home page. If you system does not have a log-in mechanism you will go straight to this home page upon accessing the system.

All processes are accessed either via the tool bar located at the top of the page or the Menu items located in the centre of the screen. Supporting features are accessed via the other links.

You can jump to the Home page at any point from within any process, subject to your confirmation to abandon the current process.

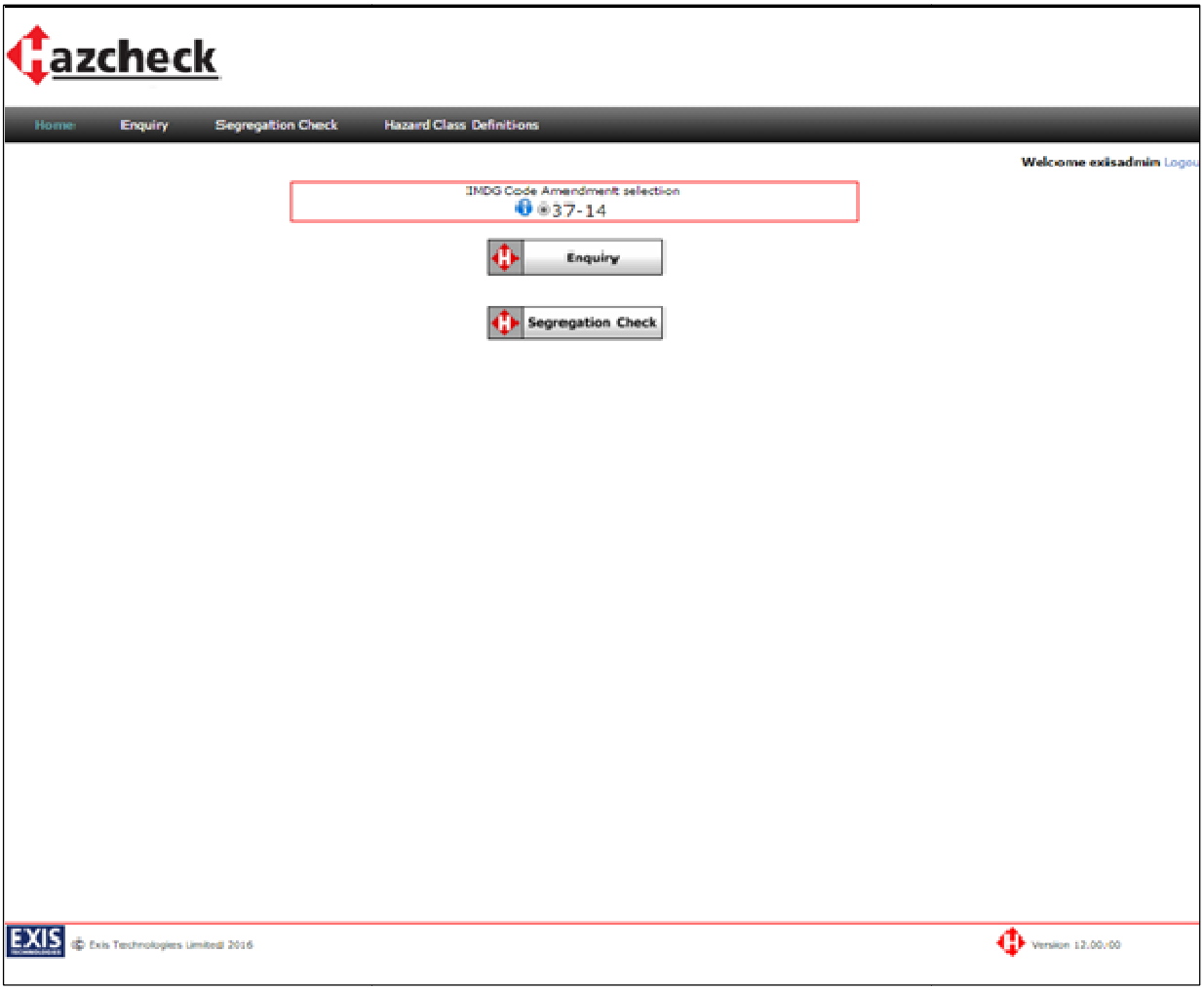


Fig. 1 Main menu

2.1 Navigation

The Enquiry, Segregation Check, and Hazard Class Definitions can all be accessed from the menu bar.

Additionally the Enquiry and Segregation Check processes can be accessed via their named buttons on the main menu screen.

Throughout the system you will see icons. Click on these to find out additional information on the functionality you are looking at.

2.2 Processes in the system configuration

This system is configured with the following functionality:

	Description
Enquiry	Display the details of any substance in the IMDG Code Dangerous Goods List (DGL), ADR DGL, RID DGL, 49 CFR 172.101 table and TDG Schedule 1.
Segregation Check	Check a load against the stowage and segregation requirements of the IMDG Code
Hazard Class Definitions	Comprehensive description of the IMDG Code hazard classes.

2.3 Regulation Amendments

Many of the regulations contained in this system have transition years whereby either the current Amendment in force or the Amendment due to come into force can used. During these 'transition years', e.g. 2015, 2017, 2019 the user can select the default Amendment to use. At the end of a transition year the new Amendment comes into force so the "old" amendment ceases to be valid for operational use and access to it is removed.

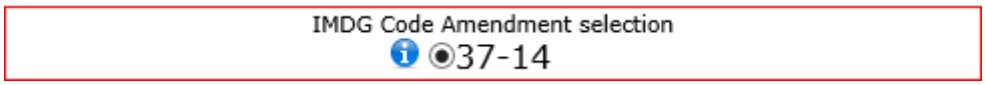


Fig. 2 Example of Amendment selection

Note: The IMDG Code is the lead regulation. For the other modal regulations the applicable regulation is matched with the IMDG Code regulation. To see details of what versions of the regulations are included with the default you are selecting click on the as shown in the example below.

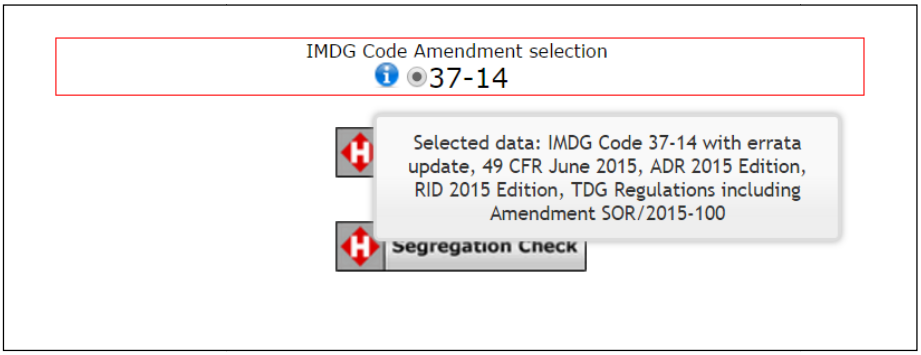


Fig. 3 Identifying the regulations including in an Amendment option

During the other alternate years when only the Amendment in force may be used the Change Amendment option is suppressed and only the Amendment in force is shown.

3 Enquiry

3.1 Introduction

The Enquiry feature provides access to the DGLs and equivalents for all the modal regulations covered in this system. As you can see there are several configurable options prior to commencing your search. In the red banner header the versions of all Regulations supplied is also provided.

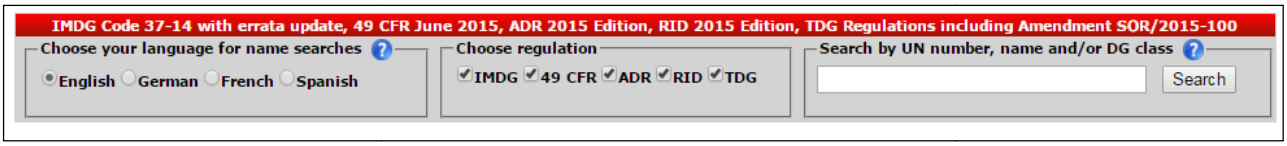


Fig. 4 Enquiry search options

3.2 IMDG Code Enquiry tab

In the first instance we will go through the functionality as applied to the IMDG Code regulation only.

3.2.1 Search by UN Number

You must enter at least three digits of the UN Number and then click Search

Fig. 5 Search by UN Number

If the UN number has variants, such as UN 1993, then you will be asked to select the variant before it can display the substance details.

UNNo	Class/Sub. Risks	Name and Variation
UN 1993	3	FLAMMABLE LIQUID, N.O.S., Packing group I.
UN 1993	3	FLAMMABLE LIQUID, N.O.S., Packing group II.
UN 1993	3	FLAMMABLE LIQUID, N.O.S., Packing group III.

Fig. 6 Variant List

Click on the UN Number of the variant to display its substance details, see example shown in section 3.2.5 following.

If the UN Number cannot be found, you will get an error message advising 'No records found'. Enter another UN Number and try again.

3.2.2 Search by substance name.

You can also search for an entry in the DGL by searching on a name. You can identify a substance by entering the leading characters of its name; a minimum of three characters is required.

Click Search button to produce a table of all substance names beginning with the search string. To select a substance from the table and display its details, click on the UN Number.

Hint: the longer the search string, the shorter the list of names returned. In this example all substances starting with the letters "Chloroacetic" are searched and displayed.

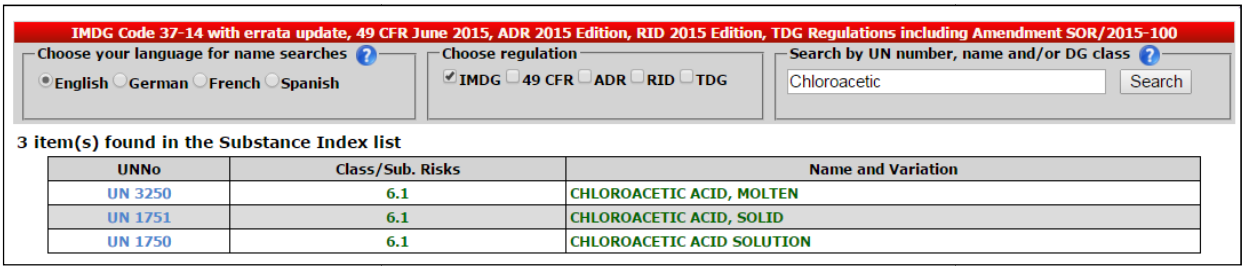
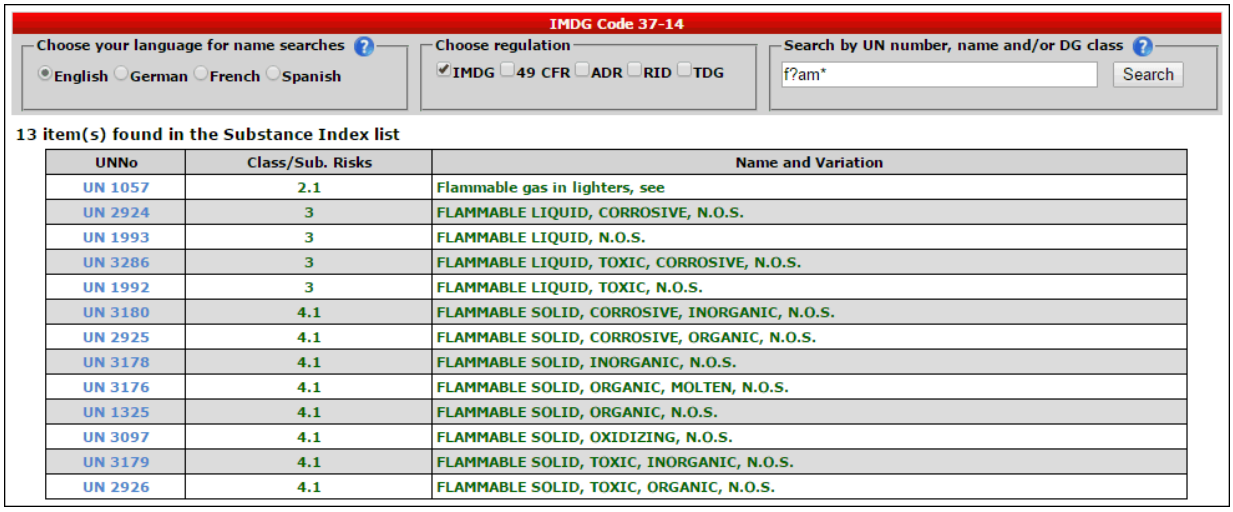


Fig. 7 Search by substance name

You can also search by a part or combination of parts of substance name. Spaces and other punctuation characters are ignored. The '*' and '?' characters are wild card characters and are interchangeable.

Hint: Experimentation is recommended. Here is an example of a search for all substances starting with 'F?AM', where '?' is any character.



UNNo	Class/Sub. Risks	Name and Variation
UN 1057	2.1	Flammable gas in lighters, see
UN 2924	3	FLAMMABLE LIQUID, CORROSIVE, N.O.S.
UN 1993	3	FLAMMABLE LIQUID, N.O.S.
UN 3286	3	FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.
UN 1992	3	FLAMMABLE LIQUID, TOXIC, N.O.S.
UN 3180	4.1	FLAMMABLE SOLID, CORROSIVE, INORGANIC, N.O.S.
UN 2925	4.1	FLAMMABLE SOLID, CORROSIVE, ORGANIC, N.O.S.
UN 3178	4.1	FLAMMABLE SOLID, INORGANIC, N.O.S.
UN 3176	4.1	FLAMMABLE SOLID, ORGANIC, MOLTEN, N.O.S.
UN 1325	4.1	FLAMMABLE SOLID, ORGANIC, N.O.S.
UN 3097	4.1	FLAMMABLE SOLID, OXIDIZING, N.O.S.
UN 3179	4.1	FLAMMABLE SOLID, TOXIC, INORGANIC, N.O.S.
UN 2926	4.1	FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S.

Fig. 8 Example of search on part of substance name

Click the UN Number the name to select the substance.

For further help on searching, you can click on the located at the far right of the screen, above the Search button. This is repeated here:

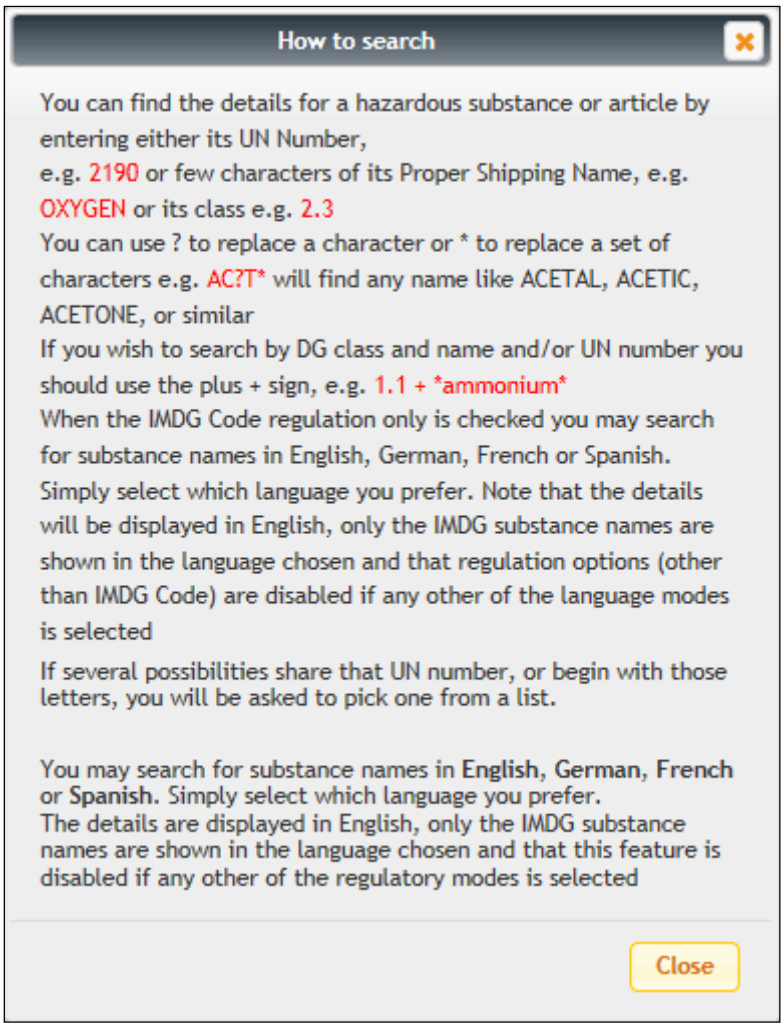


Fig. 9 Help on searching for a substance by name

3.2.3 Variations

When you select a substance that has a number of variations, a table showing UN Number, Class, PSN and variation description will be displayed. There are several reasons why there may be substance variations:

- belongs to more than one packing group, e.g. **PG I**, **PG II**, **PG III**
- may have more than one **Proper Shipping Name** (**PSN**)
- has different physical states, e.g. **Liquid**/**Solution**, **Solid**, **Molten**
- has different concentrations or mixtures by percent
- has different quantity values e.g. “more than 1 litre” or “less than 1 litre”
- has different hazard class options and/or subsidiary risks

Examples of this are shown below:

UNNo	Class/Sub. Risks	Name and Variation
UN 1993	3	FLAMMABLE LIQUID, N.O.S., Packing group I.
UN 1993	3	FLAMMABLE LIQUID, N.O.S., Packing group II.
UN 1993	3	FLAMMABLE LIQUID, N.O.S., Packing group III.

Fig. 10 Substance variations (**packing groups**)

UNNo	Class/Sub. Risks	Name and Variation
UN 2801	8	DYE, LIQUID, CORROSIVE, N.O.S., Dye, Packing group I.
UN 2801	8	DYE INTERMEDIATE, LIQUID, CORROSIVE, N.O.S., Dye intermediate, Packing group I.
UN 2801	8	DYE, LIQUID, CORROSIVE, N.O.S., Dye, Packing group II.
UN 2801	8	DYE INTERMEDIATE, LIQUID, CORROSIVE, N.O.S., Dye intermediate, Packing group II.
UN 2801	8	DYE, LIQUID, CORROSIVE, N.O.S., Dye, Packing group III.
UN 2801	8	DYE INTERMEDIATE, LIQUID, CORROSIVE, N.O.S., Dye intermediate, Packing group III.

Fig. 11 Substance variations (**more than one PSN**)

Choose the variant by clicking on the UN Number. For internal identification purposes, variations of a substance are assigned a suffix letter starting from lower case ‘a’ to ‘*z*’. This suffix is not displayed. If you know the variation suffix, you may affix it to the end of the UN Number, e.g. 1993b, 2995c, 1263f, and 1950h. This will cut out this intermediate step of having to select the variant Substance Details

3.2.4 Searching for substances names in languages

The IMDG Code regulations provide the ability to search for substance in the languages shown below.

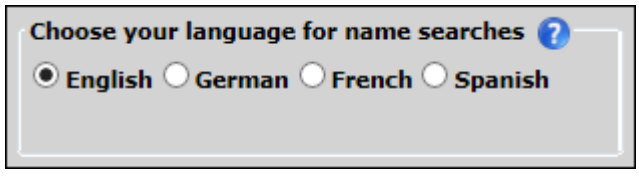


Fig. 12 Language search options (IMDG Code only)

If you type your substance name into the search box and process the search button you will be provided with a list of possible matches. For example if we search for CHLOROPHENOLATES using the French language option we will see the following:

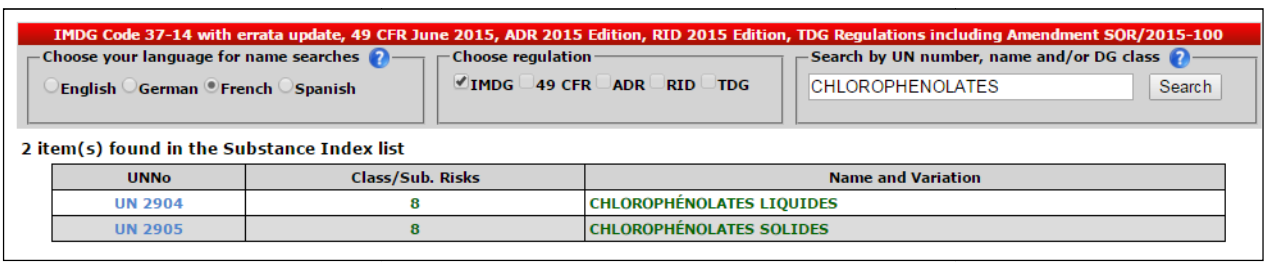


Fig. 13 Example of foreign language search for a substance

If there are no matches this will be indicated on the screen.

Note: when you search using the German, French or Spanish options, the 49CFR, ADR, RID and TDG regulations will not be available.

3.2.5 Enquiry screen

Once selected substance details are displayed in the following format (example below shows UN 3206, packing group III variant):

IMDG Code 37-14			
Classification Information			
(1) UN number	3206	(2) Proper shipping name	ALKALI METAL ALCOHOLATES, SELF-HEATING, CORROSIVE, N.O.S.
(3) Class or division	4.2 	(4) Subsidiary risks	8 
(5) Packing group	III	(6) Special provisions	182 223 274
(7a) Limited quantities	0	(7b) Excepted quantities	E1
Packing Information			
(8) Packing instructions	P002	(9) Packing provisions	PP31
(10) IBC instructions	IBC08	(11) IBC provisions	B3
(13) Tank instructions	T1	(14) Tank provisions	TP33
(16a) Stowage and Handling		(16b) Segregation	
Category: B			
Properties and Observations			
(17)	Free-flowing hygroscopic powder. Cause burns to skin, eyes and mucous membranes.		
(15) EmS	F-A, S-J		
Regulatory Text			
Access to the complete IMDG Code text is provided under royalty to the IMO. If purchased you can access the Code clicking here (Subject to the link being set up)			

Fig. 14 Example of Substance Enquiry details

The figure above shows the IMDG Code DGL information. When shown in blue and bold there are hyperlinks to further information which will open up in a pop-up window. For example, clicking on the link in the special provisions column in our example above shows the following pop-up:

Special Provision For

ALKALI METAL ALCOHOLATES, SELF-HEATING, CORROSIVE, N.O.S.

182	The group of alkali metals includes lithium, sodium, potassium, rubidium and caesium.
223	If the chemical or physical properties of a substance covered by this description are such that, when tested, it does not meet the established defining criteria for the class or division listed in column 3, or any other class or division, it is not subject to the provisions of this Code except in the case of a marine pollutant where 2.10.3 applies.
274	For the purposes of documentation and package marking, the Proper Shipping Name shall be supplemented with the technical name (see 3.1.2.8.1).

Fig. 15 Example of links in the DGL substance screen

For the IMDG Code the following hyperlinks are provided:

Special Provisions	Displays special provisions
E*	Display the excepted quantity table, where * is a number from 0 to 5. E0 means it is not allowed in Excepted Quantities (i.e. E0)
Packing	Displays packing instructions (i.e. P002)
Packing provisions	Displays packing provision instructions (i.e. PP31)
IBCs	Displays IBC instructions (i.e. IBC08
Tanks	Displays tank instructions (i.e. T1)
Tank provisions	Displays tank provision instructions (i.e. TP33)
EmS	Applicable emergency schedule codes will link to the full text of the Fire and Spillage schedule (i.e. F-A,S-B)

At the bottom of the Enquiry screen there is a link to the full text of the regulations. For the IMDG Code the link will only work if connected to a purchased IMDG Code for Intranet system.

Hint: Hovering over the column descriptions provides pop-ups which display the regulatory reference where further detail on the entry can be found. For example, the screenshot below shows the reference for finding further information on the packing group (column 5) in the IMDG Code.

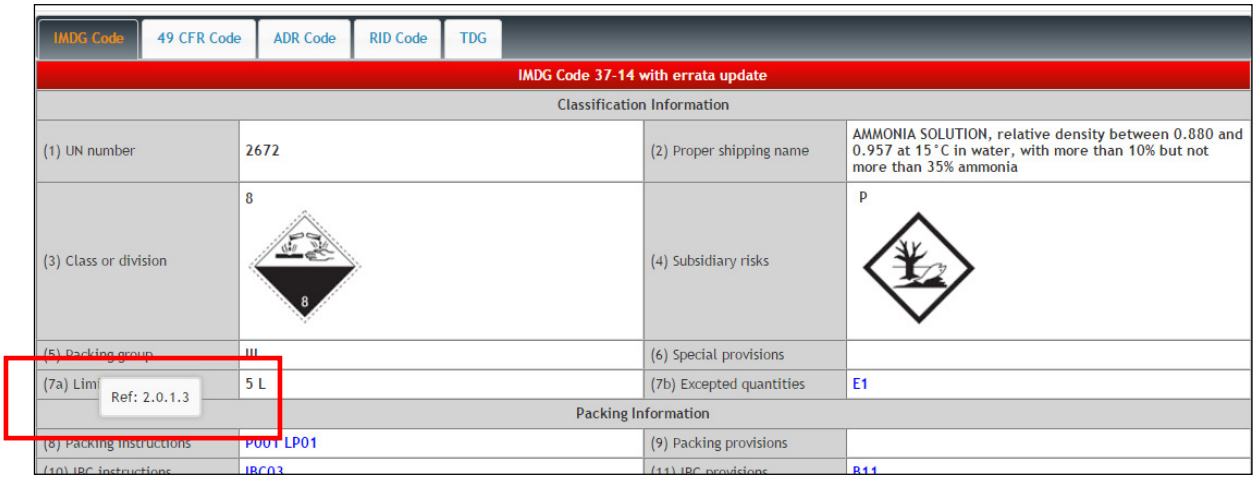


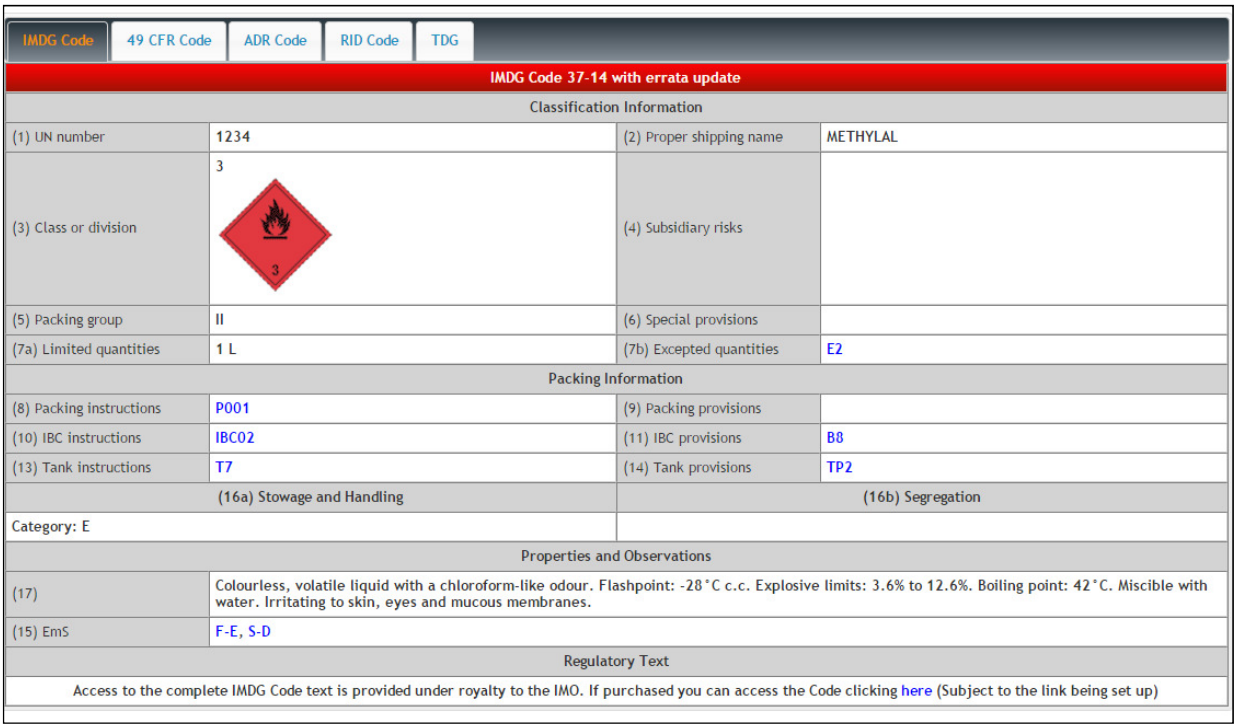
Fig. 16 Example showing column references

3.3 Other regulatory modes

The following regulatory modes are also available in the Enquiry feature. Any combination can be selected.

Fig. 17 Showing all regulatory modes selected

As with IMDG Code covered in Section 3.2 previously you can search for any UN Number or substance name in the regulatory modes selected. In the example below we have searched for UN 1234.



IMDG Code | 49 CFR Code | ADR Code | RID Code | TDG

IMDG Code 37-14 with errata update

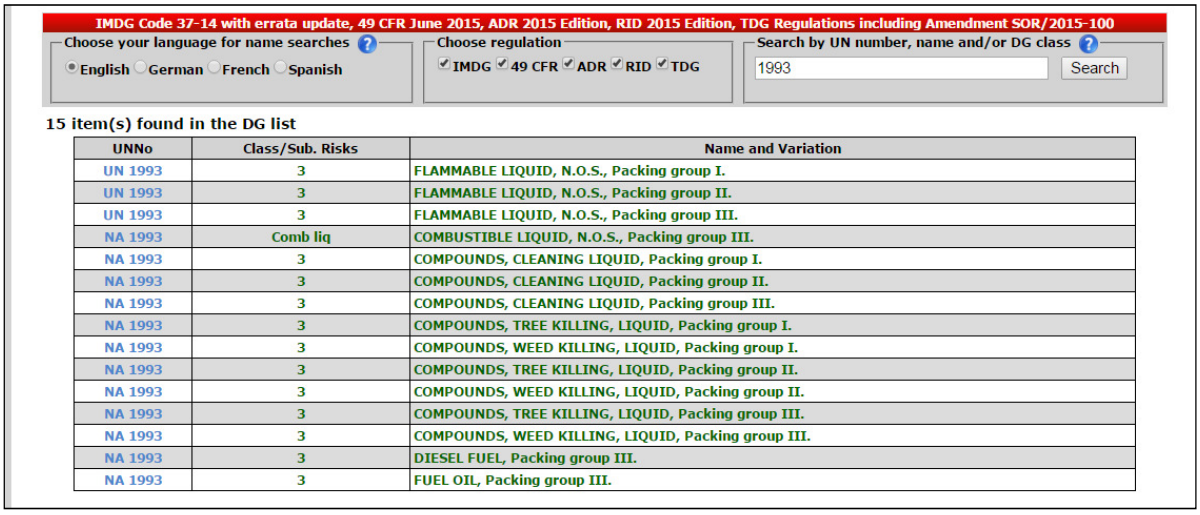
Classification Information			
(1) UN number	1234	(2) Proper shipping name	METHYLAL
(3) Class or division	3	(4) Subsidiary risks	
(5) Packing group	II	(6) Special provisions	
(7a) Limited quantities	1 L	(7b) Excepted quantities	E2
Packing Information			
(8) Packing instructions	P001	(9) Packing provisions	
(10) IBC instructions	IBC02	(11) IBC provisions	B8
(13) Tank instructions	T7	(14) Tank provisions	TP2
(16a) Stowage and Handling		(16b) Segregation	
Category: E			
Properties and Observations			
(17)	Colourless, volatile liquid with a chloroform-like odour. Flashpoint: -28°C c.c. Explosive limits: 3.6% to 12.6%. Boiling point: 42°C. Miscible with water. Irritating to skin, eyes and mucous membranes.		
(15) EmS	F-E, S-D		
Regulatory Text			
Access to the complete IMDG Code text is provided under royalty to the IMO. If purchased you can access the Code clicking here (Subject to the link being set up)			

Fig. 18 Example of Enquiry search on all modes

The Enquiry system defaults to showing the IMDG Code Enquiry screen but as you can see from the figure above there are also tabs for the for the other regulatory modes. We will look at each of this in the following sections.

3.3.1 Modal variants

The system shows the variants contained in the DGLs of the all the regulatory modes. In some instances there may be additional UN Numbers and/or variants available in one mode compared with another. For example, 1993 also has several additional variants in the 49CFR mode compared with the other modes as can be seen from the screenshot below:



IMDG Code 37-14 with errata update, 49 CFR June 2015, ADR 2015 Edition, RID 2015 Edition, TDG Regulations including Amendment SOR/2015-100

Choose your language for name searches: English German French Spanish

Choose regulation: IMDG 49 CFR ADR RID TDG

Search by UN number, name and/or DG class: 1993 Search

15 item(s) found in the DG list

UNNo	Class/Sub. Risks	Name and Variation
UN 1993	3	FLAMMABLE LIQUID, N.O.S., Packing group I.
UN 1993	3	FLAMMABLE LIQUID, N.O.S., Packing group II.
UN 1993	3	FLAMMABLE LIQUID, N.O.S., Packing group III.
NA 1993	Comb liq	COMBUSTIBLE LIQUID, N.O.S., Packing group III.
NA 1993	3	COMPOUNDS, CLEANING LIQUID, Packing group I.
NA 1993	3	COMPOUNDS, CLEANING LIQUID, Packing group II.
NA 1993	3	COMPOUNDS, CLEANING LIQUID, Packing group III.
NA 1993	3	COMPOUNDS, TREE KILLING, LIQUID, Packing group I.
NA 1993	3	COMPOUNDS, WEED KILLING, LIQUID, Packing group I.
NA 1993	3	COMPOUNDS, TREE KILLING, LIQUID, Packing group II.
NA 1993	3	COMPOUNDS, WEED KILLING, LIQUID, Packing group II.
NA 1993	3	COMPOUNDS, TREE KILLING, LIQUID, Packing group III.
NA 1993	3	COMPOUNDS, WEED KILLING, LIQUID, Packing group III.
NA 1993	3	DIESEL FUEL, Packing group III.
NA 1993	3	FUEL OIL, Packing group III.

Fig. 19 Showing extra variants for 1993

We can see from the list that the list of variants includes ‘NA Numbers’ that are specific to 49 CFR only. Selecting one of these shows the 49CFR tab only as this variant is not included in the other regulatory modes.

49 CFR Code

49 CFR June 2015			
Classification Information			
(4) Identification number	NA1993	(2) Hazardous materials descriptions and PSN	COMPOUNDS, TREE KILLING, LIQUID
(3) Hazard class or division	3	(1) Symbol	D G
(6) Label codes			
(5) Packing group	I	(7) Special provisions	
Packaging Information			
(8A) Exceptions	150		
(8B) Non-bulk	201	(8C) Bulk	243
Quantity Limitations			
(9a) Passenger aircraft/rail	1 L	(9b) Cargo aircraft only	30 L
Vessel Stowage			
(10a) Location	E	(10b) Other	
Regulatory Text			
Access to the 49 CFR regulations are available here			

Fig. 20 Showing 49 CFR only variant substance detail screen

As another example, UN 3245 is not provided in regulatory modes TDG and 49 CFR so a search for this would show the substance enquiry screens for IMDG Code, ADR and RID only as shown below:

IMDG Code | ADR Code | RID Code

IMDG Code 37-14 with errata update			
Classification Information			
(1) UN number	3245	(2) Proper shipping name	GENETICALLY MODIFIED MICROORGANISMS
(3) Class or division	9 No label required.	(4) Subsidiary risks	
(5) Packing group		(6) Special provisions	219
(7a) Limited quantities	0	(7b) Excepted quantities	E0
Packing Information			
(8) Packing instructions	P904	(9) Packing provisions	
(10) IBC instructions	IBC99	(11) IBC provisions	
(13) Tank instructions		(14) Tank provisions	
(16a) Stowage and Handling		(16b) Segregation	
SW7 As approved by the competent authorities of the countries involved in the shipment.		SG50 Segregation from foodstuffs as in 7.3.4.2.1, 7.6.3.1.2 or 7.7.3.6.	
Properties and Observations			
(17)			
(15) EmS	F-A, S-T		
Regulatory Text			
Access to the complete IMDG Code text is provided under royalty to the IMO. If purchased you can access the Code clicking here (Subject to the link being set up)			

Fig. 21 Search for UN 3245 showing applicability only to certain modes

3.4 49CFR Enquiry tab

The following provides an example of an entry in the 49CFR substance enquiry screen:

IMDG Code | 49 CFR Code | ADR Code | RID Code | TDG

49 CFR June 2015

Classification Information			
(4) Identification number	UN2945	(2) Hazardous materials descriptions and PSN	N-METHYLBUTYLAMINE
(3) Hazard class or division	3	(1) Symbol	
(6) Label codes			
(5) Packing group	II	(7) Special provisions	
Packaging Information			
(8A) Exceptions	150		
(8B) Non-bulk	202	(8C) Bulk	243
Quantity Limitations			
(9a) Passenger aircraft/rail	1 L	(9b) Cargo aircraft only	5 L
Vessel Stowage			
(10a) Location	B	(10b) Other	040
Regulatory Text			
Access to the 49 CFR regulations are available here			

Fig. 22 49 CFR Code Enquiry Tab

The screen above reflects the data provided for an entry in the Hazmat 172.101 table. Where hyperlinks are shown links are provided to further information. For 49CFR the links either provide a pop-up or go direct to the web-based 49CFR and show the information for that reference. The example below shows the link from column 8a in the figure above:

AUTHENTICATED U.S. GOVERNMENT INFORMATION GPO

§ 173.202 **49 CFR Ch. I (10–1–12 Edition)**

Steel jerrican: 3A1 or 3A2
Plastic jerrican: 3H1 or 3H2
Aluminum jerrican: 3B1 or 3B2
Steel box: 4A
Aluminum box: 4B
Natural wood box: 4C1 or 4C2
Plywood box: 4D
Reconstituted wood box: 4F
Fiberboard box: 4G
Expanded plastic box: 4H1
Solid plastic box: 4H2

Inner packagings:
Glass or earthenware receptacles
Plastic receptacles
Metal receptacles
Glass ampoules

(c) Except for transportation by passenger aircraft, the following single packagings are authorized:

Steel drum: 1A1 or 1A2
Aluminum drum: 1B1 or 1B2
Metal drum other than steel, or aluminum: 1N1 or 1N2
Plastic drum: 1H1 or 1H2
Steel jerrican: 3A1 or 3A2
Plastic jerrican: 3H1 or 3H2
Aluminum jerrican: 3B1 or 3B2
Plastic receptacle in steel, aluminum, fiber or plastic drum: 6HA1, 6HB1, 6HG1, 6HH1
Plastic receptacle in steel, aluminum, wooden, plywood or fiberboard box: 6HA2, 6HB2, 6HC, 6HD2 or 6HG2
Glass, porcelain or stoneware in steel, aluminum or fiber drum: 6PA1, 6PB1 or 6PG1
Glass, porcelain or stoneware in steel, alu-

ments of the special provisions of column 7 of the § 172.101 table.

(b) The following combination packagings are authorized:

Outer packagings:
Steel drum: 1A1 or 1A2
Aluminum drum: 1B1 or 1B2
Metal drum other than steel or aluminum: 1N1 or 1N2
Plywood drum: 1D
Fiber drum: 1G
Plastic drum: 1H1 or 1H2
Wooden barrel: 2C2
Steel jerrican: 3A1 or 3A2
Plastic jerrican: 3H1 or 3H2
Aluminum jerrican: 3B1 or 3B2
Steel box: 4A
Aluminum box: 4B
Natural wood box: 4C1 or 4C2
Plywood box: 4D
Reconstituted wood box: 4F
Fiberboard box: 4G
Expanded plastic box: 4H1
Solid plastic box: 4H2

Inner packagings:
Glass or earthenware receptacles
Plastic receptacles
Metal receptacles
Glass ampoules

(c) Except for transportation by passenger aircraft, the following single packagings are authorized:

Fig. 23 Example of hyperlink from the 49CFR substance enquiry screen

For 49CFR the following additional data is provided by either pop-ups or hyperlinks

Symbol	Displays one of the 6 symbols as per §172.101(b). Provided as pop-up
Special provisions	Displays special provisions from the relevant sections of §172.102. Provided as pop-up
Packaging - Exceptions	Displays packaging exceptions as provided in the relevant section of §173. Provided as web link
Packaging – Non-bulk	Displays non-bulk packaging information as provided in the relevant section of §173. Provided as web link
Packaging - bulk	Displays bulk packaging information as provided in the relevant section of §173. Provided as web link
Vessel Stowage (other)	Displays additional stowage information as a pop-up. The meaning of each code is provided in §176.84. Provided as pop-up

Access to the full text of 49CFR is provided via the link on the bottom of the 49CFR Enquiry screen. It takes you to the eCFR website. Scroll down to the Title 49 – Transportation and press 'Go'. You can then click through to the relevant section of 49CFR.

3.5 ADR Enquiry tab

The following provides an example of an entry in the ADR substance enquiry screen:

IMDG Code | 49 CFR Code | ADR Code | RID Code | TDG

ADR 2015 Edition			
Classification Information			
(1) UN number	2945	(2) Name and description	N-METHYLBUTYLAMINE
(3a) Class	3	(3b) Classification code	FC
(5) Labels			
(4) Packing group	II	(6) Special provisions	
(7a) Limited quantities	1 L	(7b) Excepted quantities	E2
Packaging Information			
(8) Packing instructions	P001 IBC02		
(9a) Special packing provisions		(9b) Mixed packing provisions	MP19
Portable Tanks and Bulk Containers			
(10) Instructions	T7	(11) Special provisions	TP1
ADR Tank Information			
(12) Tank code	L4BH	(13) Special provisions	
(14) Vehicle for tank carriage	FL		
Special Provisions for Carriage			
(16) Packages		(17) Bulk	
(18) Loading, unloading and handling		(19) Operation	S2 S20
Additional Information			
(15) Transport category (Tunnel restriction code)	2 (D/E)	(20) Hazard identification number	338
Regulatory Text			
Access to the complete text of the ADR regulations is freely available here			

Fig. 24 ADR Code Enquiry Tab

The screen above reflects the data provided for an entry in the ADR DGL. Where hyperlinks are shown links are provided to further information. The example below shows the link from column 9b in the figure above:

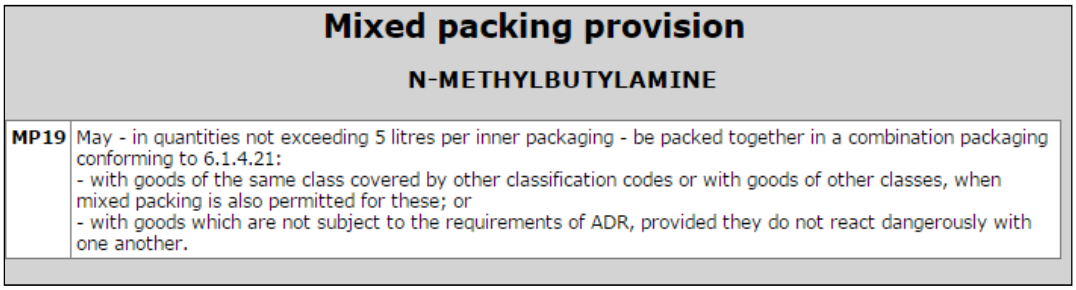


Fig. 25 Example of further information pop up in the ADR enquiry Screen

For ADR the following further information is provided by pop-ups:

Classification code	Displays the classification code as provided in 2.2
Special provisions	Displays the text of the special provision(s) as provided in 3.3
Excepted quantities	Display the excepted quantity table, where * is a number from 0 to 5. E0 means it is not allowed in Excepted Quantities (i.e. E0)
Packaging information	Advises the user to access the full ADR text to view detailed information on packaging
Mixed packing provisions	Displays the text for the codes as provided for in 4.1.10
ADR tank information – special provisions	Displays the text for the codes as provided for in 4.3.5 and 6.8.4
Vehicle for tank carriage	Displays the text for the codes as provided for in 9.1.1.2
Special provisions for carriage – packages	Displays the text for the codes as provided for in 7.2.4
Special provisions for carriage – bulk	Displays the text for the codes as provided for in 7.3.3
Special provisions for carriage – loading, unloading and handling	Displays the text for the codes as provided for in 7.5.11
Special provisions for carriage – operation	Displays the text for the codes as provided for in 8.5
Transport category/ (tunnel restriction code)	Displays the text for the codes as provided for in 1.1.3.6 (8.6)
Hazard identification number	Displays the text for the code as provided for in 5.3.2.3

Access to the full text of the ADR Regulations is provided via the link on the bottom of the Enquiry screen. It takes you to the UNECE website where the ADR Regulations and subsequent corrigendum are provided in pdf.

3.6 RID Enquiry tab

The following provides an example of an entry in the RID substance enquiry screen:

IMDG Code | 49 CFR Code | ADR Code | RID Code | TDG

RID 2015 Edition			
Classification Information			
(1) UN number	2945		
(2) Name and description	N-METHYLBUTYLAMINE		
(3a) Class	3	(3b) Classification code	FC
(5) Labels	 		
(4) Packing group	II	(6) Special provisions	
(7a) Limited quantities	1 L	(7b) Excepted quantities	E2
Packaging Information			
(8) Packing instructions	P001 IBC02		
(9a) Special packing provisions		(9b) Mixed packing provisions	MP19
Portable Tanks and Bulk Containers			
(10) Instructions	T7	(11) Special provisions	TP1
RID Tank Information			
(12) Tank code	L4BH	(13) Special provisions	
Special Provisions for Carriage			
(16) Packages		(17) Bulk	
(18) Loading, unloading and handling			
Additional Information			
(15) Transport category	2	(19) Colis express (Express parcels)	CE7
(20) Hazard identification number	338		
Regulatory Text			
Access to the complete text of the RID regulations is available here			

Fig. 26 RID Code Enquiry Tab

The screen above reflects the data provided for an entry in the RID DGL. Where hyperlinks are shown links are provided to further information. The example below shows the link from column 19 in the figure above:

Special Provision For

N-METHYLBUTYLAMINE

CE7	An express parcels package shall not contain more than 6 litres of this substance.

Fig. 27 Example of further information pop up in the RID enquiry Screen

For RID the following further information is provided by pop-ups:

Classification code	Displays the classification code as provided in 2.2
Special provisions	Displays the text of the special provision(s) as provided in 3.3
Excepted quantities	Display the excepted quantity table, where * is a number from 0 to 5. E0 means it is not allowed in Excepted Quantities (i.e. E0)
Packaging information	Advises the user to access the full RID text to view detailed information on packaging
Mixed packing provisions	Displays the text for the codes as provided for in 4.1.10
RID tanks – special provisions	Displays the text for the codes as provided for in 4.3.5 and 6.8.4
Transport category	Displays the text for the codes as provided for in 1.1.3.1(c)
Special provisions for carriage – packages	Displays the text for the codes as provided for in 7.2.4
Special provisions for carriage – bulk	Displays the text for the codes as provided for in 7.3.3
Special provisions for carriage – loading, unloading and handling	Displays the text for the codes as provided for in 7.5.11
Colis express (express parcels)	Displays the text for the codes as provided for in 7.6
Hazard identification number	Displays the text for the code as provided for in 5.3.2.3

Access to the full text of the RID Regulations is provided via the link on the bottom of the Enquiry screen. It takes you to the OTIF website where the RID Regulations and subsequent corrigendum are provided in pdf.

3.7 TDG Enquiry tab

The following provides an example of an entry in the TDG substance enquiry screen:

IMDG Code | 49 CFR Code | ADR Code | RID Code | TDG

TDG Regulations including Amendment SOR/2015-100

Classification Information			
(1) UN number	2945	(2) Shipping name and description	N-METHYLBUTYLAMINE
(3) Class	3 	(8) 	
(4) Packing group/ Category	II	(5) Special provisions	
(6a) Explosive limit and limited quantity index	1 L	(6b) Excepted quantity	E2
Packaging Information			
See Part 5 of the TDG Regulations of details on the means of containment			
Carriage Information			
(8) Passenger carrying ship index		(9) Passenger carrying road vehicle or passenger carrying railway vehicle index	1 L
Additional Information			
(7) ERAP index		Marine pollutant	
Regulatory Text			
Access to the complete text of the TDG regulations is available here			

Fig. 28 Example of the enquiry screen for TDG

The screen above reflects the data provided for an entry in Schedule 1.

For TDG the following further information is provided by pop-ups:

Special provisions Provided as per Schedule 2

Excepted quantities Provided as per 1.17.1

Access to the full text of TDG is provided via the link on the bottom of the Enquiry screen. It takes you to the Transport Canada dangerous goods website where links are provided to the sections in the Regulations.

3.8 Returning to the search screen

Once you have enquired on a substance in the Enquiries option you can select this link.

←Back to Substance Enquiry

You will be taken back to the Enquiry selection window which will show your previous search criteria. Simply overwrite your previous criteria with new criteria to search for other substances.

Alternatively, you can return sequentially by clicking on your browser Back button.

If at any time you wish to return to the home screen click ‘Home’ in the top menu bar.

4 Segregation Check

The segregation check will only take into account IMDG Code segregation and stowage rules.

Segregation checking covers the following steps:

- Unit Type selection
- Add the items to the load
- Check and Validating the load

To start the Validation process click the ‘Segregation Check’ button on the Main Menu page or click ‘Segregation Check’ in the menu bar on any web page displaying the menu bar.

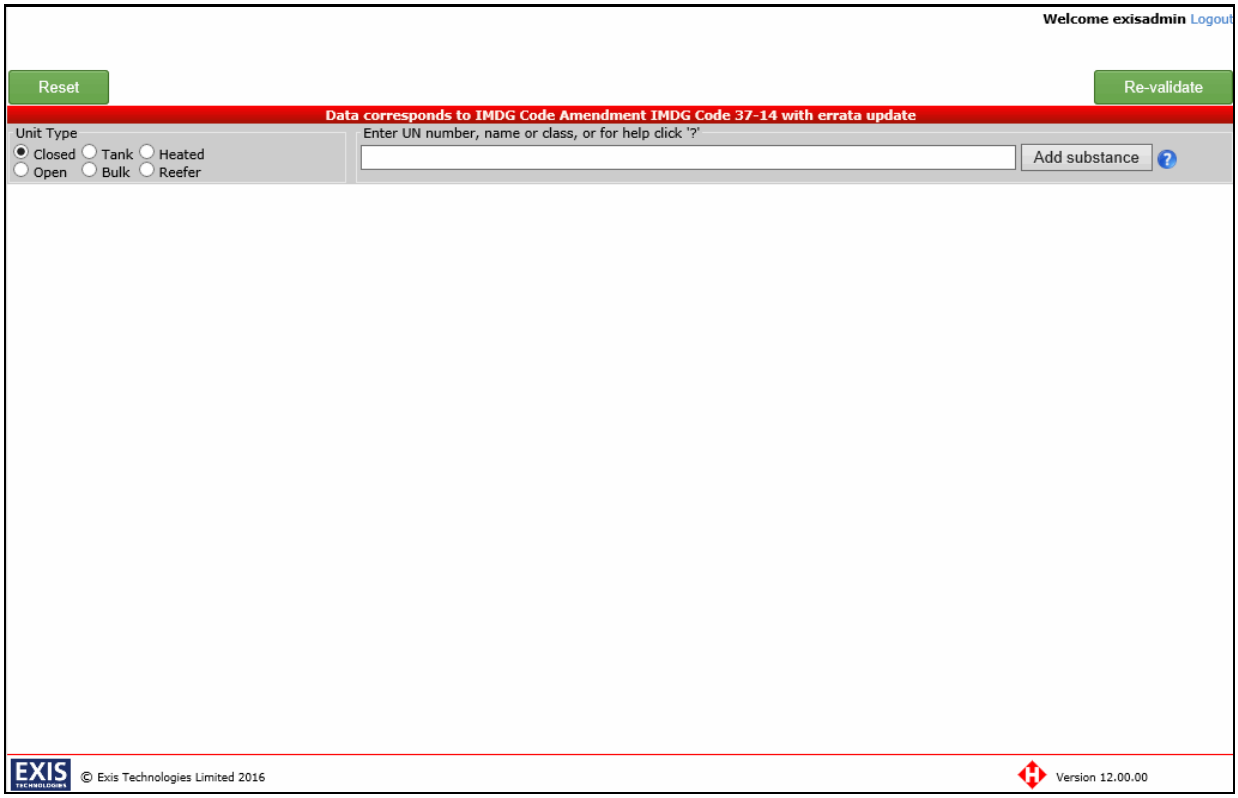


Fig. 29 Main segregation check screen

4.1 Unit Type

Before adding the items, you must set the Unit Type. Please note that the Unit Type will affect the validation results.

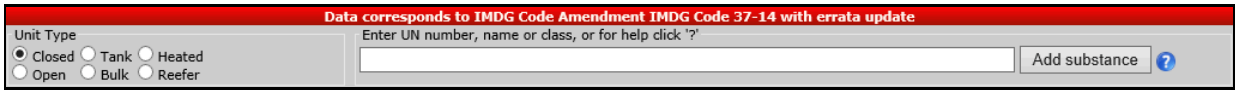


Fig. 30 Unit Type

Unit type The Unit Type defaults to **CLOSED**. The options also offer **OPEN, TANK**, **BULK**, **HEATED** and **REEFER**.

For this system the following applies:

- **Closed**: this covers the vast majority of containers eg 20ft dry van, 40ft dry van etc
- **Open**: this applies to flatracks, curtainsiders etc
- **Tank**: this applies to tank containers

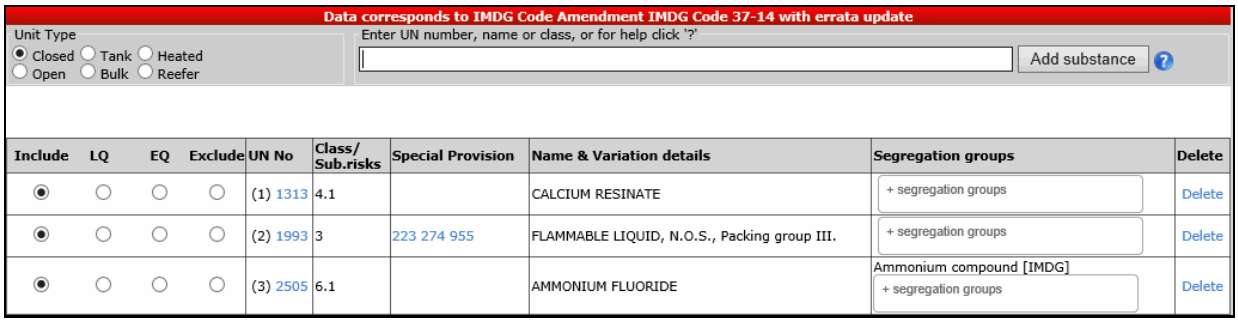
The following three options are available for adding restrictions against. If selected they are applied as follows:

- **Reefer**: Validates as a closed container
- **Heated**: Validates as tank container
- **Bulk**: validates as open container

Having selected unit type options you can now add items to the load.

4.2 Add items

4.2.1 Add items to the Consignment



Include	LQ	EQ	Exclude	UN No	Class/ Sub.risks	Special Provision	Name & Variation details	Segregation groups	Delete
◉	○	○	○	(1) 1313	4.1		CALCIUM RESINATE	+ segregation groups	Delete
◉	○	○	○	(2) 1993	3	223 274 955	FLAMMABLE LIQUID, N.O.S., Packing group III.	+ segregation groups	Delete
◉	○	○	○	(3) 2505	6.1		AMMONIUM FLUORIDE	Ammonium compound [IMDG] + segregation groups	Delete

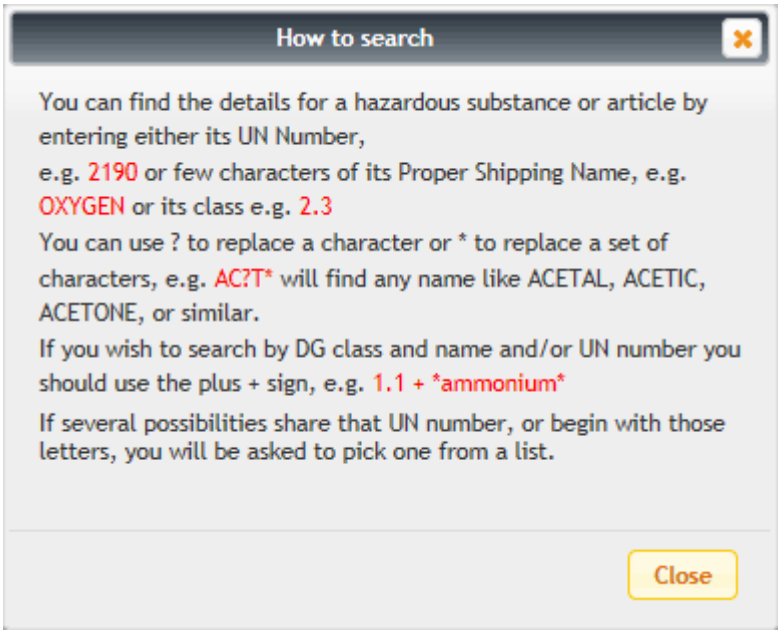
Fig. 31 Add item to consignment

Enter the UN number and click the 'Add Substance' button. An unlimited number of items can be added, simply repeat this process. The Item entry box can accept the four digit UN Number including the variation suffix letter, or you can enter a "wild card" search string as described in Section 3.2.2 above.

Click the '**Delete**' link to permanently remove the item from the load. If you wish to empty the entire list and start the load process again click the green 'Reset' button. Please note that if the green 'Reset' button is clicked it will clear the whole of the load.

After making amendments to the Load you can select the red 'Re-validate' button for the validation of the load to occur again.

If you are still unclear on how the process works, you can click on the ? next to the search bar. This will open a new window displaying examples and further information about the process:



4.2.2 Selecting a variant

Variants occur when the substance:

- belongs to more than one packing group, e.g. **PG I**, **PG II**, **PG III**
- may have more than one **Proper Shipping Name** (**PSN**)
- has different physical states, e.g. **Liquid**/**Solution**, **Solid**, **Molten**
- has different concentrations or mixtures by percent
- has different quantity values e.g. “more than 1 litre” or “less than 1 litre”
- has different hazard class options and/or subsidiary risks

When you select a substance that has a number of variations, all variants will be displayed in the substance variants table. As you can see from the example below UN 1993 has three variants each having a different packing group.

UNNo	Class	Name and Variation
1993	3	FLAMMABLE LIQUID, N.O.S., Packing group I.
1993	3	FLAMMABLE LIQUID, N.O.S., Packing group II.
1993	3	FLAMMABLE LIQUID, N.O.S., Packing group III.

Close this table

Fig. 24 Substance variants table

Choose the variant by clicking on the UN Number; this action will also close the substance variants table. For internal identification purposes, variations of a substance are assigned a suffix letter starting from (*a)*. This suffix is not displayed. If you know the variation suffix, you may affix it to the end of the UN Number, e.g. 1993b, 2995c, 1263f, and 1950h. This will cut out this intermediate step of having to select the variant.

4.2.3 Organic Peroxides and Self-Reactives

Organic Peroxides and Self-Reactive substances have pre-determined technical names or formulations permitted for transport and these are listed in 2.5.3.2.4 and 2.4.2.3.2.3 respectively. Hazcheck Gateway lists these technical names for selection during this step.

Organic peroxides

Consider UN 3109 Organic Peroxide Type F, Liquid which has three variants.

UNNo	Class	Name and Variation
3109	5.2, 8	ORGANIC PEROXIDE TYPE F, LIQUID, Bearing a corrosive label, peroxyacetic acid, type F, stabilized.
3109	5.2, 8	ORGANIC PEROXIDE TYPE F, LIQUID, Bearing a corrosive label, other formulations.
3109	5.2	ORGANIC PEROXIDE TYPE F, LIQUID, Not bearing a corrosive label.

Close this table

Fig. 25 Selecting an organic peroxide variant

Having selected a variant you will be presented with the associated technical names for that variant. For instance, by selecting the second variant the following technical names are displayed.

Technical Names

In Packagings	Concentration (%)	Diluent type A (%)	Diluent type B (%)	Inert solid (%)	Water (%)	Packing Method	Control Temperature (°C)	Emergency Temperature (°C)	Remarks
tert-BUTYL HYDROPEROXIDE	<= 72				>= 28	OP8			13
CUMYL HYDROPEROXIDE	>= 80 - 90	>= 10				OP8			13
ISOPROPYLCUMYL HYDROPEROXIDE	<= 72	>= 28				OP8			13

In IBCs	Concentration (%)	Diluent type A (%)	Diluent type B (%)	Inert solid (%)	Water (%)	Type of IBC	Control Temperature (°C)	Emergency Temperature (°C)	Remarks
tert-BUTYL HYDROPEROXIDE	<= 72				>= 28	31A 1250			13
CUMYL HYDROPEROXIDE	>= 80 - 90	>= 10				31HA1 1250			13
ISOPROPYLCUMYL HYDROPEROXIDE	<= 72	>= 28				31HA1 1250			13

In Tanks	Concentration (%)	Diluent type A (%)	Diluent type B (%)	Inert solid (%)	Water (%)	Control Temperature (°C)	Emergency Temperature (°C)	Remarks
tert-BUTYL HYDROPEROXIDE	<= 72				>= 28			13
CUMYL HYDROPEROXIDE	>= 80 - 90	>= 10						13
ISOPROPYLCUMYL HYDROPEROXIDE	<= 72	>= 28						13

Fig. 26 Displaying organic peroxide technical names

Self-reactives

Another example is UN 3226 Self-Reactive Solid Type C. On entering 3226, you will be presented with the following list of self-reactive technical names (formulations)

In Packagings	Concentration (%)	Diluent type A (%)	Diluent type B (%)	Inert solid (%)	Water (%)	Packing Method	Control Temperature (°C)	Emergency Temperature (°C)	Remarks
AZODICARBONAMIDE FORMULATION TYPE D	< 100					OP7			5
1,1'-AZODI(HEXAHYDROBENZONITRILE)	100					OP7			
BENZENE-1,3-DISULPHONYL HYDRAZIDE as a paste	52					OP7			
BENZENESULPHONYL HYDRAZIDE	100					OP7			
4-(BENZYL(ETHYL)AMINO)-3-ETHOXYBENZENEDIAZONIUM ZINC CHLORIDE	100					OP7			
3-CHLORO-4-DIETHYLAMINOBENZENEDIAZONIUM ZINC CHLORIDE	100					OP7			
2-DIAZO-1-NAPHTHOLSULPHONIC ACID ESTER MIXTURE TYPE D	< 100					OP7			9
2,5-DIETHOXY-4-(4-MORPHOLINYL) BENZENEDIAZONIUM SULPHATE	100					OP7			
DIPHENYLOXIDE-4,4'-DISULPHONYL HYDRAZIDE	100					OP7			
4-DIPROPYLAMINOBENZENEDIAZONIUM ZINC CHLORIDE	100					OP7			
4-METHYLBENZENESULPHONYLHYDRAZIDE	100					OP7			
SODIUM 2-DIAZO-1-NAPHTHOL-4-SULPHONATE	100					OP7			
SODIUM 2-DIAZO-1-NAPHTHOL-5-SULPHONATE	100					OP7			

Fig. 27 Displaying self-reactive technical names

4.2.4 Item options

Include	LQ	EQ	Exclude	UN No	Class/ Sub.risks	Special Provision	Name & Variation details	Segregation groups	Delete
◉	○	○	○	(1) 1993	3	223 274 955	FLAMMABLE LIQUID, N.O.S., Packing group III.	+ segregation groups..	Delete
◉	○	○	○	(2) 2742	6.1, 3/8	274	CHLOROFORMATES, TOXIC, CORROSIVE, FLAMMABLE, N.O.S.	Acid [IMDG] + segregation groups..	Delete

Fig. 28 Item options

There are several item options when adding individual UN numbers to a load. These include:

Include If the **Include** button is set (the default setting), the item will be included in the load and be subjected to the validation and feasibility checks.

LQ If the **LQ** button (Limited Quantities) is set, the item is being transported under the provisions for limited quantities, and will not be subjected to normal segregation requirements. If the item is not allowed in limited quantities, the validation routine will highlight this item by informing you that it cannot be transported under limited quantity provisions and the load is invalid. Loads in tanks are not permitted in Limited Quantities.

EQ If the **EQ** button (Excepted Quantities) is set, the item is being transported under the provisions for excepted quantities, and will not be subjected to normal segregation requirements. If the item is not allowed in excepted quantities, the validation routine will highlight this item by informing you that it cannot be transported under excepted quantity provisions and the load is invalid. Loads in tanks are not permitted in Excepted Quantities.

Exclude Click the **Exclude** button to exclude an item from a Load. The item is not deleted from the load but it is ignored by the Validation/Feasibility check. This allows the user to check multi-loads for compatibility, segregation and feasibility prior to stuffing a container and processing the necessary paperwork and booking.

Delete The **Delete** link, when selected, will remove the item from the list.

4.2.5 Adding segregation groups

Additional segregation groups can be added to a substance by clicking on the 'Segregation Groups' option alongside that item. For each item in your list it will display a pick list of the segregation groups as listed in section 3.1.4.4 of the IMDG Code. It is **important** that you assign the segregation group(s) to each item (when applicable) because it may be a significant factor when checking the segregation.

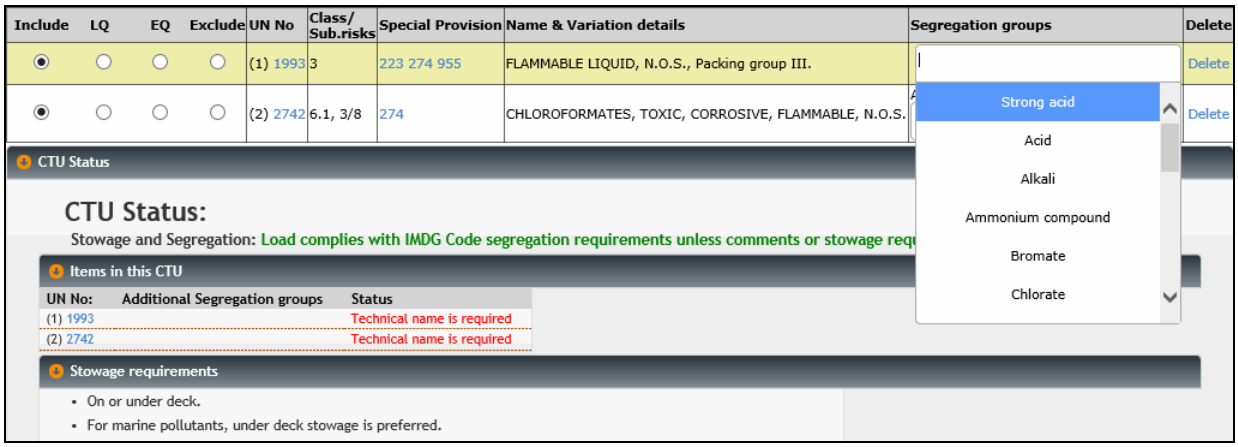


Fig. 29 Assigning an item to a Segregation Group

If the substance is already assigned to a segregation group, as listed in 3.1.4.4 of the IMDG Code, that segregation group is removed from the list but is displayed above the pick list. This is illustrated by UN 2742 in Fig 20 below, which belongs to the Acid segregation group and cannot be de-selected from the Acids group.

Multiple selects

If the shipper has specified the substance belongs to a segregation group then you need to add it to that group. A single click assigns the segregation group to the item. This will deselect any previously selected groups. If more than one segregation group is required hold the Ctrl key down and click all applicable segregation groups.

Deselect

To deselect a 'segregation group' then select the 'x' alongside the segregation group and it will be removed.

Using the above example, suppose we assign UN 1993 to the Acids segregation group the Load List will now be displayed as follows.

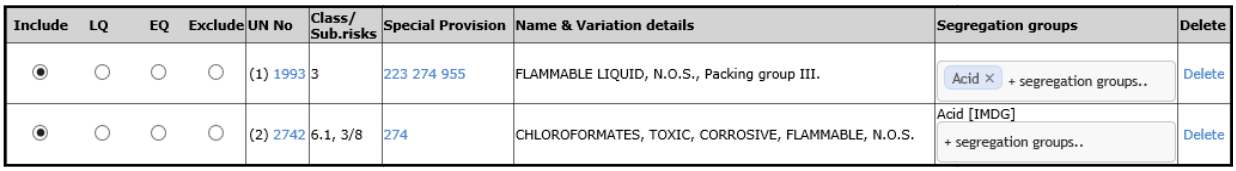


Fig. 30 Result of assigning an item to a segregation group

Hint: If you want to check the details of the substance before you actually add it to the list, just click on the appropriate **UN No**. The substance details will be displayed in a separate window which can be closed when you have read the details. If you wish you can select the Special Provisions for each substance on your load list by selecting, for example, 223 274 955 alongside item 1993 to read the IMDG Code text for them special provisions.

4.3 Validate the items in the load list

Once all items have been added you can validate the load, by clicking the 'Re-validate' button. The validation checks are:

- The general provisions for segregation between the various classes of dangerous goods are met as specified in the Segregation Table shown in Section 7.2.4 of the IMDG Code, see section 5 following.
- Subsidiary risks segregation requirements
- Individual substance segregation requirements implied by comments such as *"Away from" class 3 and lead and its compounds* are taken into account.
- Segregation requirements between explosives.
- Items being transported under Limited Quantity provisions are allowed in limited quantities.
- Items being transported under Excepted Quantity provisions are allowed in excepted quantities.
- Whether or not an item may be or must be carried in a tank.

There are a number of possible Validation outcomes varying from being valid, valid with comments or conditions through to being invalid.

These various outcomes are now explained in the following examples.

4.3.1 Valid Loads

If the load satisfies the above validation checks you will see something like the following example.

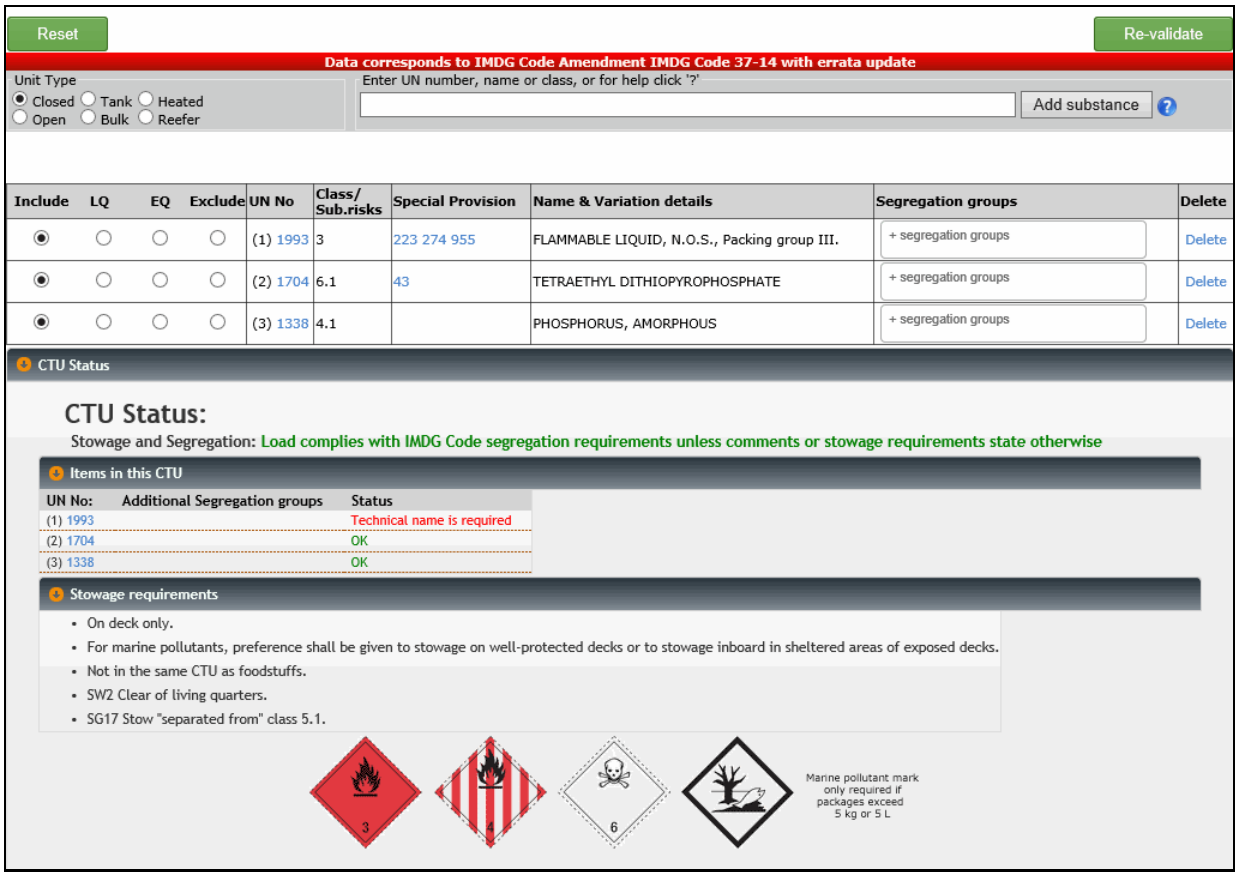


Fig. 31 Valid load

Load complies message

The valid Load message '**Load complies** - ' ' ' ' will be displayed in green. The appended stowage comment will reflect the most severe stowage requirement of any item in the Load. All required hazard labels for the transport unit will be displayed.

Stowage requirements

Stowage requirements are displayed in a separate frame, the most severe stowage requirements for all items. For instance, if one item may be stowed 'On or under deck' and another item must be stowed 'On deck only', then you will see "On deck only".

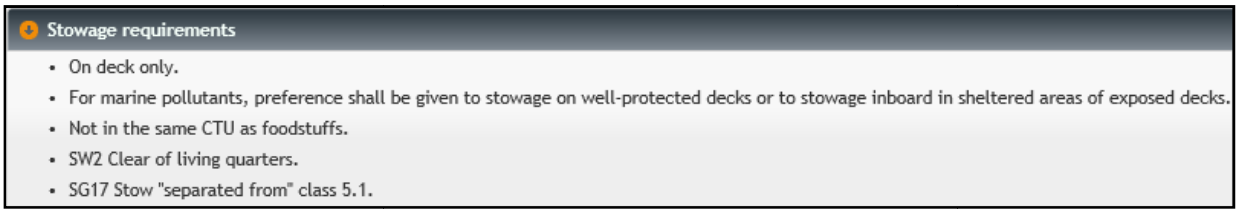
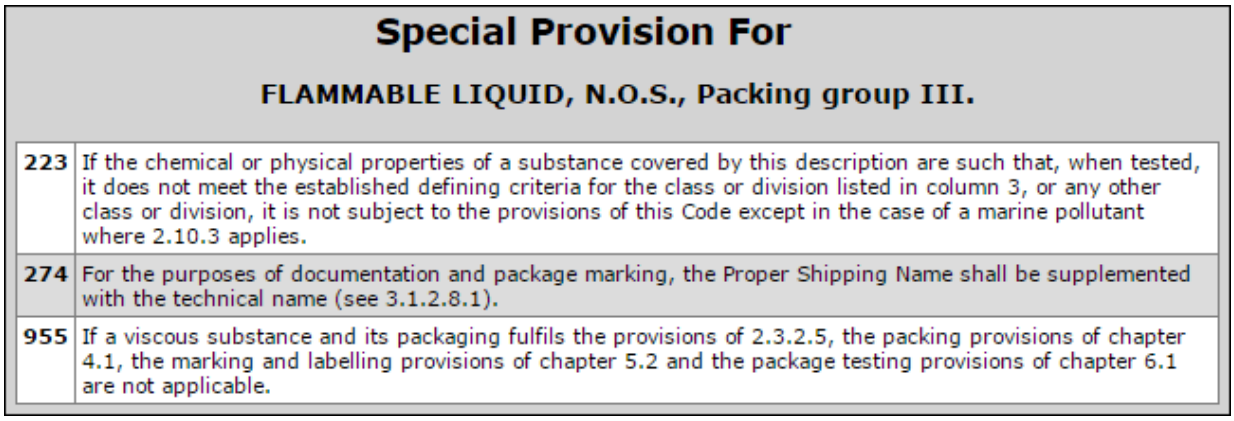


Fig. 32 Stowage requirements for a Load

Special provisions

Clicking on the special provision numbers will display, in a separate window,any special provisons required by that item.



Special Provision For

FLAMMABLE LIQUID, N.O.S., Packing group III.

223	If the chemical or physical properties of a substance covered by this description are such that, when tested, it does not meet the established defining criteria for the class or division listed in column 3, or any other class or division, it is not subject to the provisions of this Code except in the case of a marine pollutant where 2.10.3 applies.
274	For the purposes of documentation and package marking, the Proper Shipping Name shall be supplemented with the technical name (see 3.1.2.8.1).
955	If a viscous substance and its packaging fulfils the provisions of 2.3.2.5, the packing provisions of chapter 4.1, the marking and labelling provisions of chapter 5.2 and the package testing provisions of chapter 6.1 are not applicable.

Fig. 33 Special provisions

4.3.2 Loads that may be accepted subject to conditions

This section describes Loads which contain incompatible items but may be accepted subject to competent authority approval or satisfying other specific conditions.

“Away from” but may be accepted subject to competent authority approval required.

If two substances should be “Away from” each other you will see a message ‘Segregation is required between pairs of substances’ displayed in orange, as shown below.

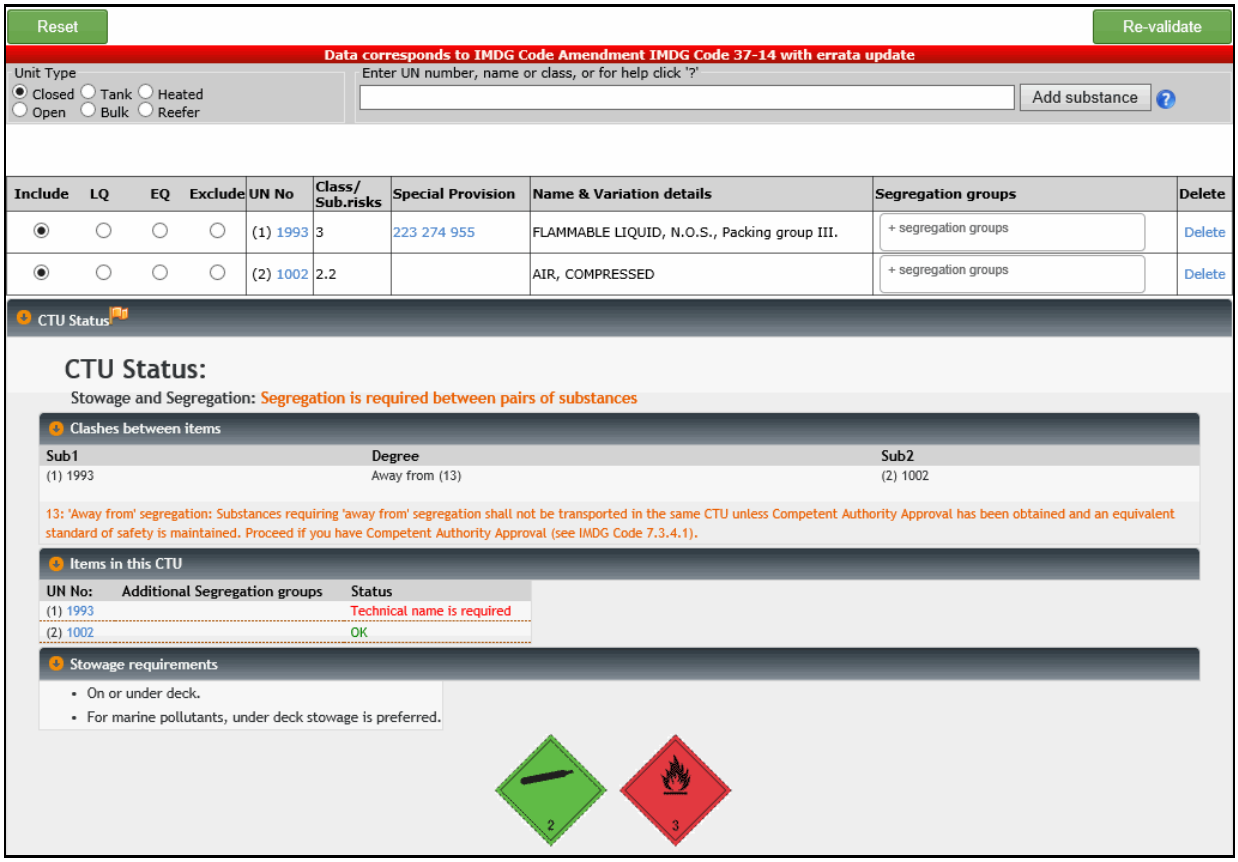


Fig. 34 “Away from” - competent authority approval required

You can amend, correct the Load by exclusion, adding and deleting items.

There are two conditions when items must be "Away from" each other.

i) Due to their prime class or first sub risk, according to the general segregation provisions

ii) Due to the specific segregation requirement as specified in column 16b in the Dangerous Goods List

In the above example

- 1993 must be away from 1002 because class 3 must be 'away from' class 2.2 according to the segregation table in 7.2.4 of the IMDG Code.

4.3.2.1 Same primary class but conflicting secondary hazards but may be accepted if they do not react dangerously

Substances of the same class may be stowed together without regard to segregation required by secondary hazards (subsidiary risk label(s)), provided the substances do not react dangerously with each other - see IMDG Code 7.2.6.1. In this situation the load is valid but you will see a message informing you of the potential problem. By using UN 2210 and 1381 the message below, in frame 'Clashes between items', is displayed to the user.

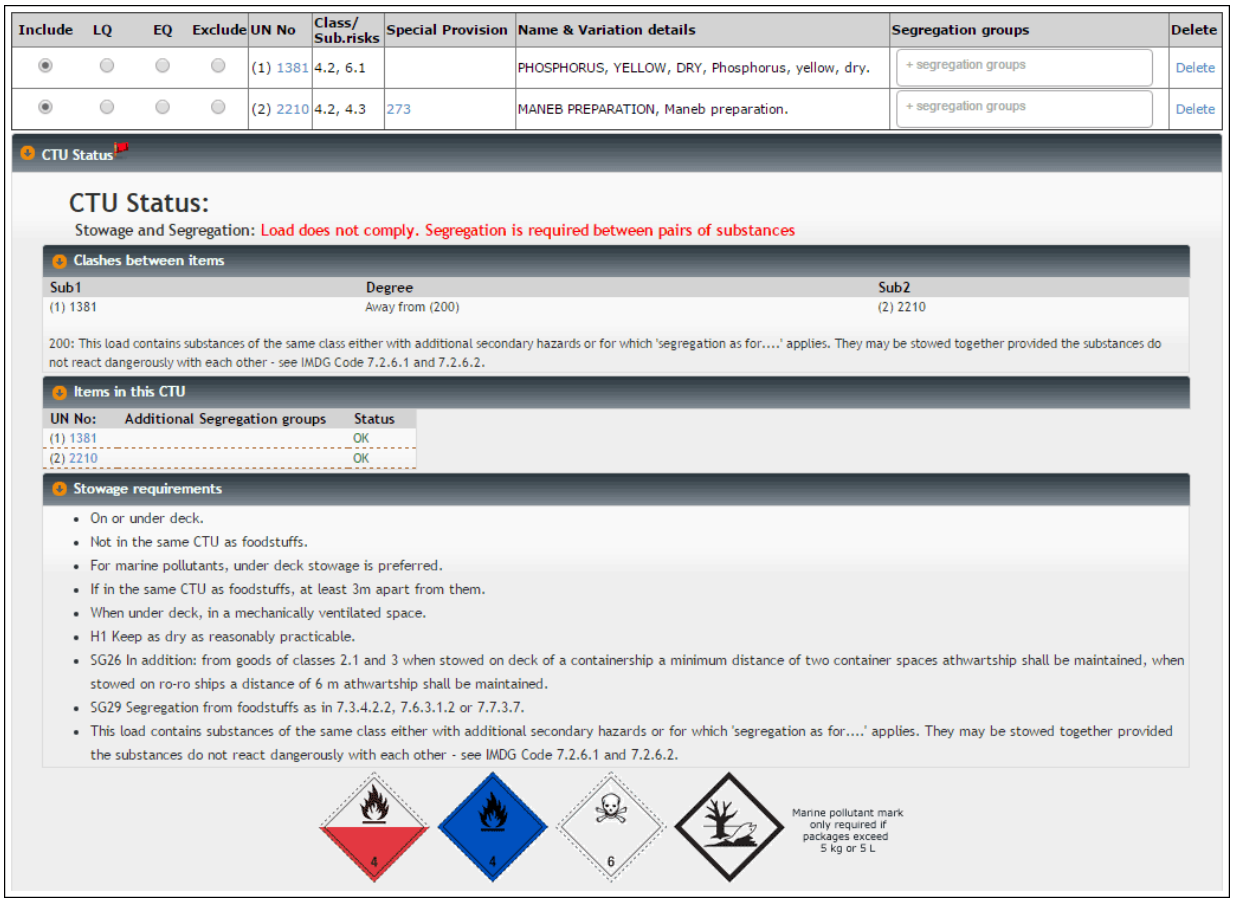


Fig. 35 Message on loads containing same class with additional secondary hazards

4.3.2.1.1 Acids and alkalis (PG II and PG III) accepted subject to provisions of 7.2.6.4 (max 30L or 30kg per package)

Substances of class 8, packing group II or III, that would otherwise be required to be segregated from one another due to provisions pertaining to segregation groups as identified by an entry in column (16) of the dangerous goods list indicating "Away from" or "Separated from" "acids" or "Away from" or "Separated from" "alkalis" may be transported in the same cargo transport unit. You may continue to Details and Weights entry screen if you comply with these requirements.

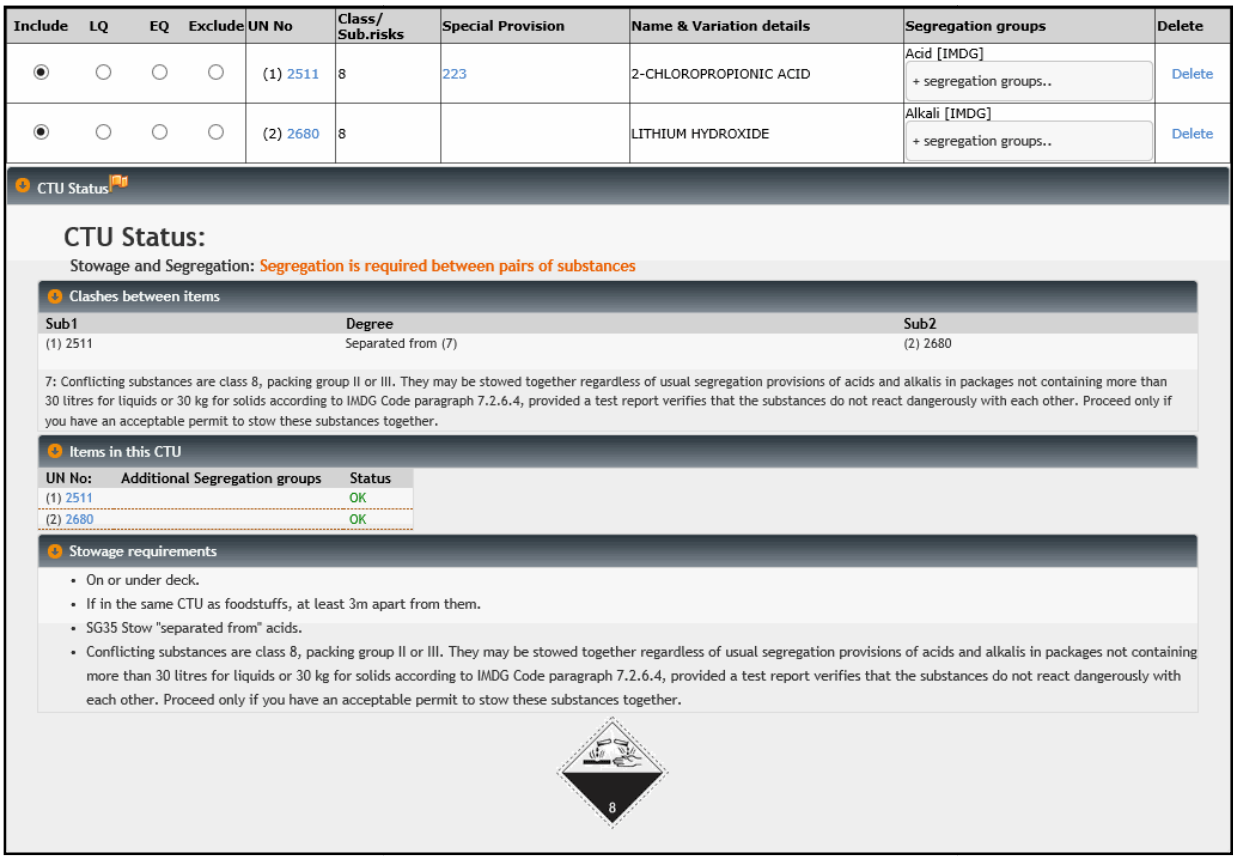


Fig. 36 Class 8 acid/ alkali segregation exception - ref. IMDG Code 7.2.6.4

4.3.3 Invalid Loads that may not be accepted for transport

A load will be made invalid and therefore cannot be accepted for transport for one or more of the following reasons:

i) Items must be separated due to their conflicting classes or sub risks
(in accordance with the general segregation provisions as shown in 5 above)

ii) Items must be separated due to conflicting segregation group

iii) The item is not permitted in that type of transport unit

iv) The item is not permitted on passenger sailings

v) The item is not permitted in Limited Quantities or Excepted Quantities

vi) The item is prohibited from transport

4.3.3.1 "Separated from" due to conflicting class or sub risk

i) In this example UN 1993 class **3** must be 'separated from' UN 1479 class **5.1**.

Include	LQ	EQ	Exclude	UN No	Class/ Sub.risks	Special Provision	Name & Variation details	Segregation groups	Delete
◉	○	○	○	(1) 1993	3	223 274 955	FLAMMABLE LIQUID, N.O.S., Packing group III.	+ segregation groups	Delete
◉	○	○	○	(2) 1479	5.1	223 274 900	OXIDIZING SOLID, N.O.S., Packing group III.	+ segregation groups	Delete

CTU Status

CTU Status:

Stowage and Segregation: Load does not comply. Segregation is required between pairs of substances

Clashes between items

Sub1	Degree	Sub2
(1) 1993	Separated from	(2) 1479

Items in this CTU

UN No:	Additional Segregation groups	Status
(1) 1993		Technical name is required
(2) 1479		Technical name is required

Stowage requirements

- On or under deck.
- For marine pollutants, under deck stowage is preferred.
- SG38 Stow "separated from" ammonium compounds.
- SG49 Stow "separated from" cyanides.
- SG60 Stow "separated from" peroxides.
- SG61 Stow "separated from" powdered metals.

Fig. 37 Conflicting prime class

ii) In this example UN 1075 prime class **2.1** must be 'separated from' UN 2295 sub risk class **3**

Include	LQ	EQ	Exclude	UN No	Class/ Sub.risks	Special Provision	Name & Variation details	Segregation groups	Delete
◉	○	○	○	(1) 1075	2.1		PETROLEUM GASES, LIQUEFIED	+ segregation groups..	Delete
◉	○	○	○	(2) 2295	6.1, 3		METHYL CHLOROACETATE	+ segregation groups..	Delete

CTU Status

CTU Status:

Stowage and Segregation: Load does not comply. Segregation is required between pairs of substances

Clashes between items

Sub1	Degree	Sub2
(1) 1075	Separated from	(2) 2295

Items in this CTU

UN No:	Additional Segregation groups	Status
(1) 1075		OK
(2) 2295		OK

Stowage requirements

- On deck only.
- For marine pollutants, preference shall be given to stowage on well-protected decks or to stowage inboard in sheltered areas of exposed decks.
- When on deck shall be stowed at least 2.4m (container ships) or 3m (other cases) from any potential source of ignition.
- SW2 Clear of living quarters.
- Not in the same CTU as foodstuffs.

Fig. 38 Conflicting sub risk

4.3.3.2 "Separated from" due to conflicting segregation group

In this example UN 2511 and UN 1688 must be separated because UN 2511 belongs to the Acids Segregation Group and 1688 must be "separated from" acids.

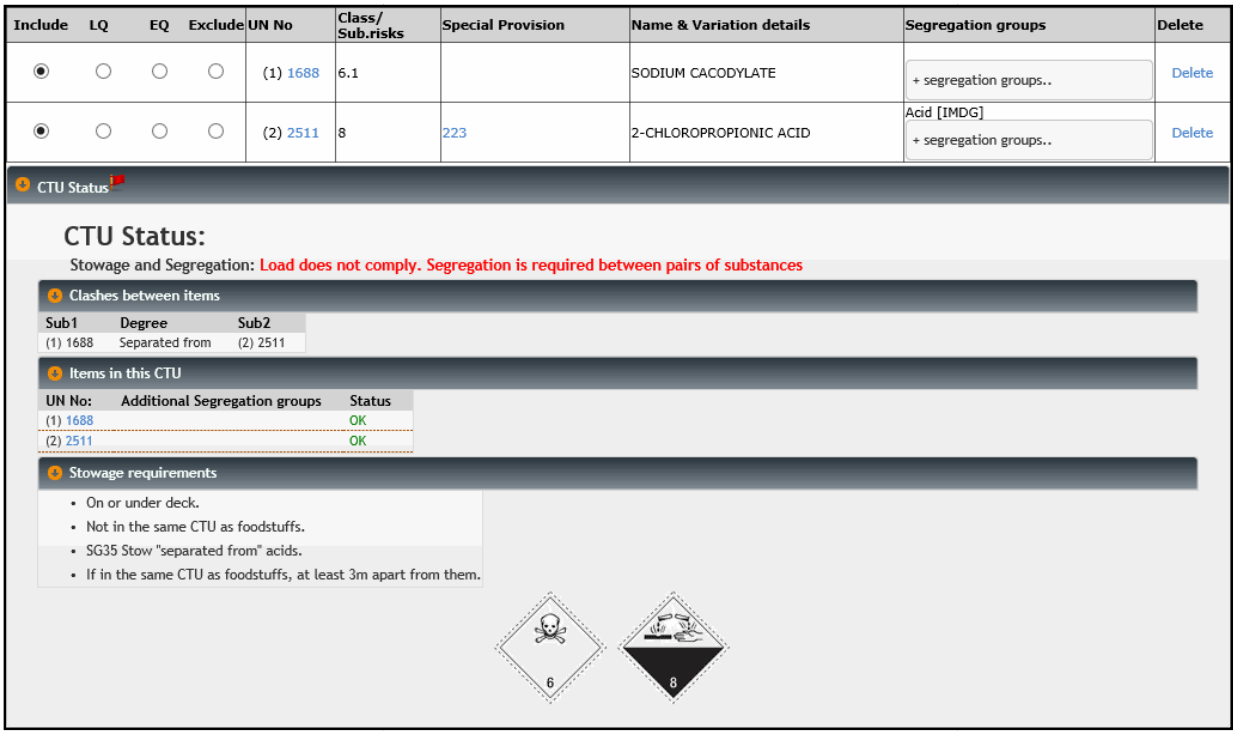


Fig. 39 "Separated from" because of segregation group conflict

4.3.3.3 Substances incompatible with type of load or sailing

The following are the conditions when a substance is incompatible with a unit type or sailing type:

Not allowed in limited quantities
Not allowed in excepted quantities
Not authorized for transport in tanks
Only allowed in closed unit
Only allowed in open unit
Only allowed in tanks

See examples below :-

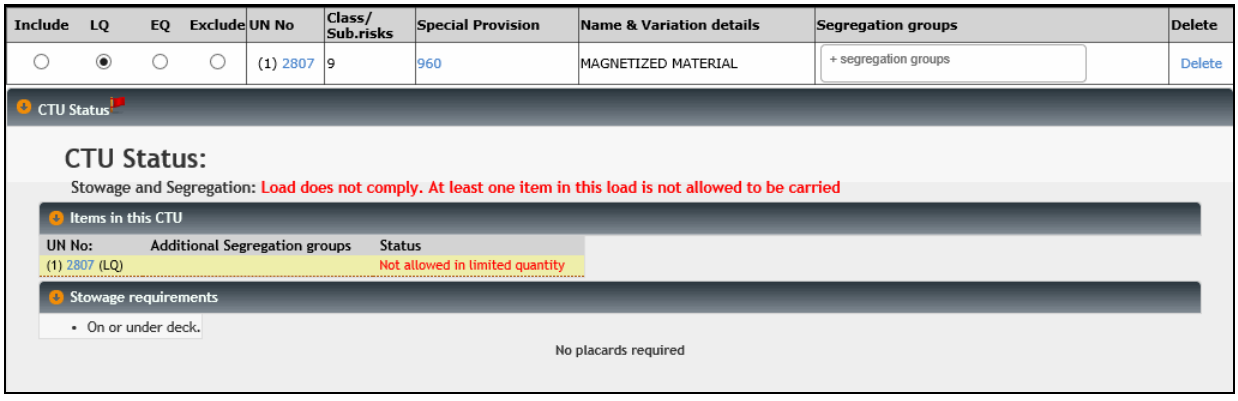


Fig. 40 Not allowed in limited quantity

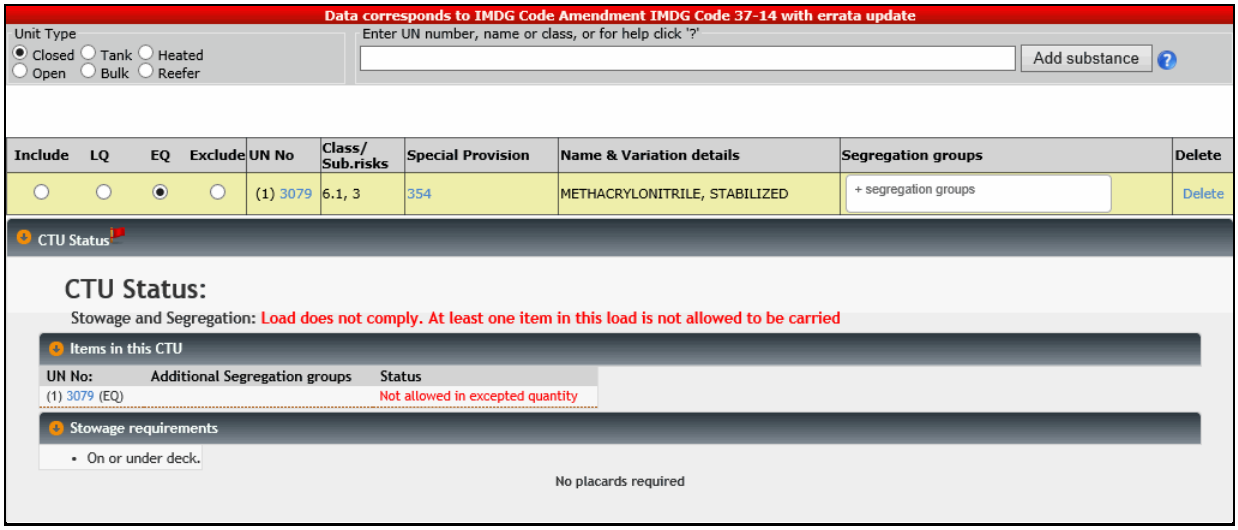


Fig. 41 Not allowed in excepted quantity

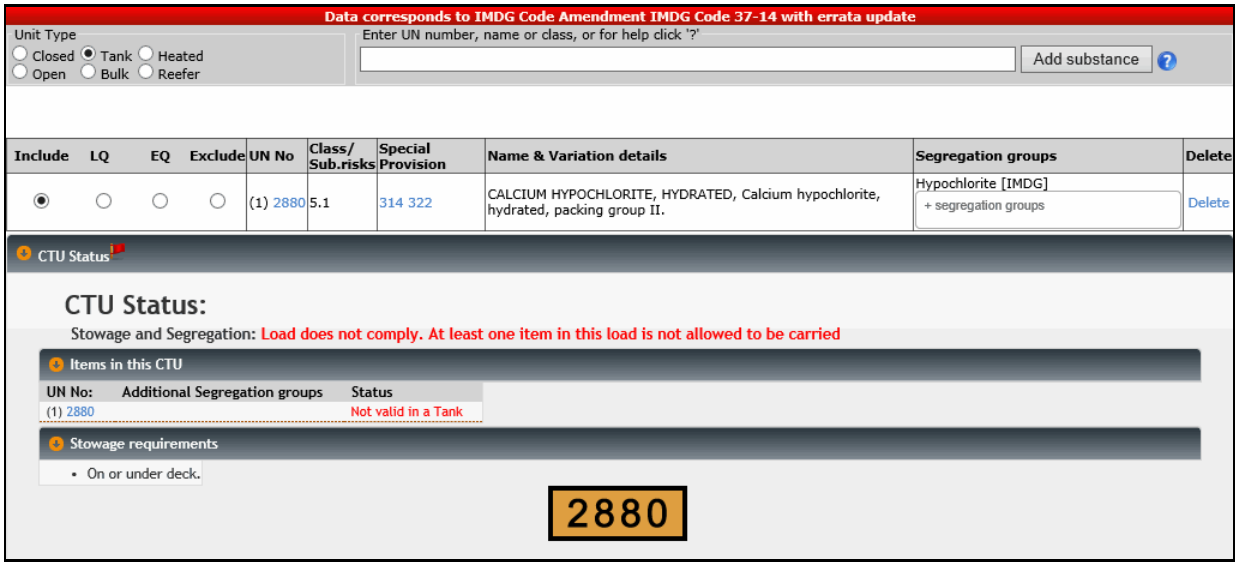


Fig. 42 Not authorized for transport in tanks

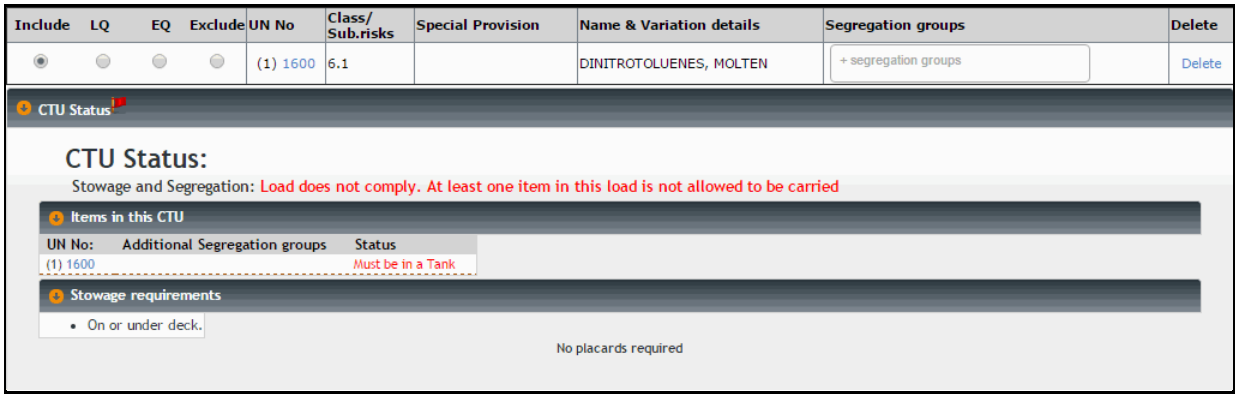


Fig. 43 Only allowed in tanks

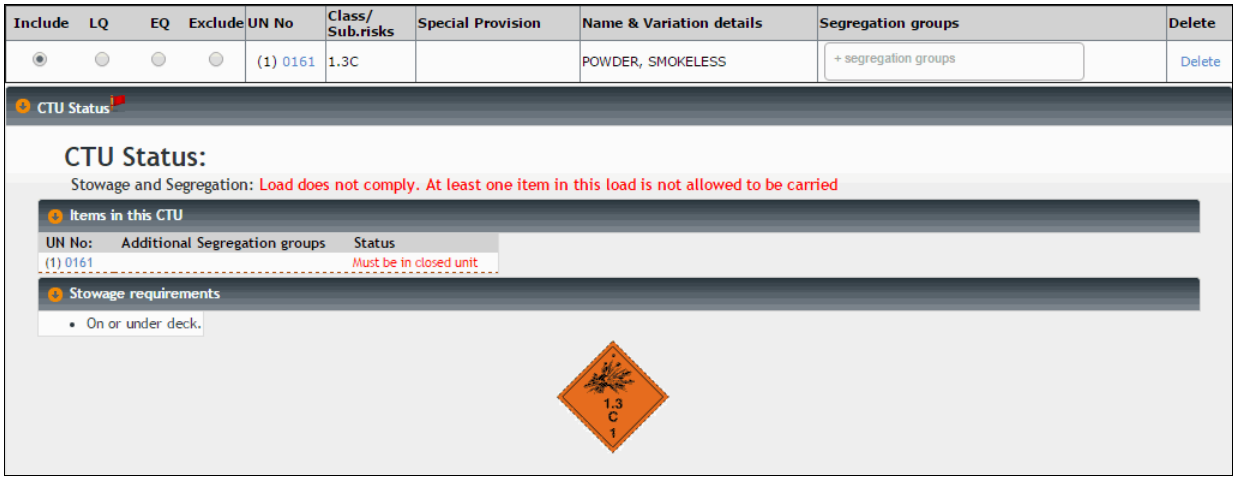


Fig. 44 Only allowed in closed unit

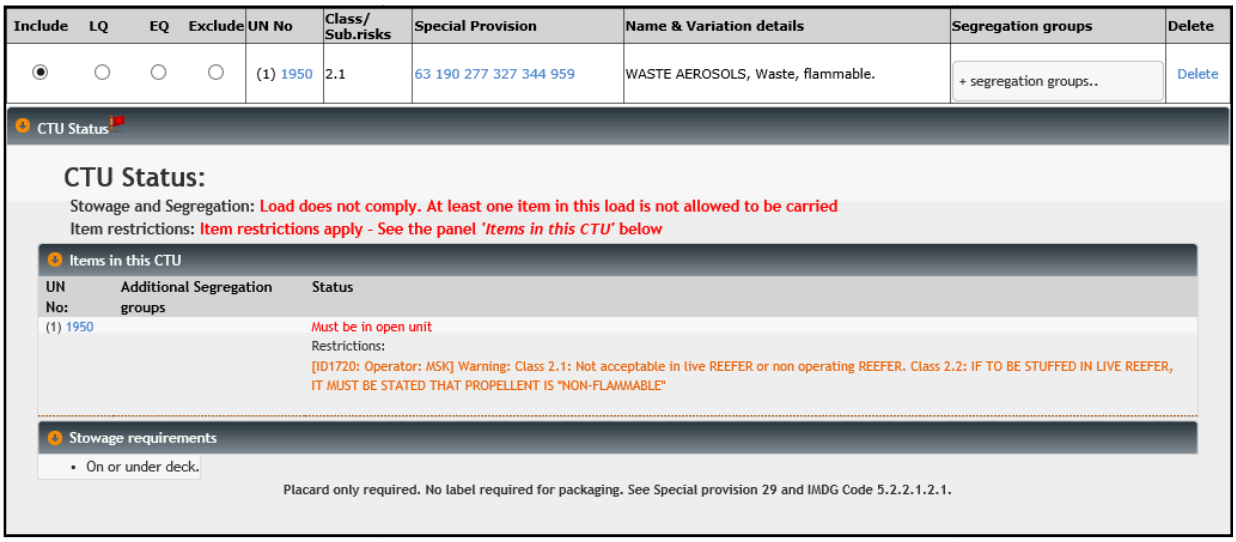
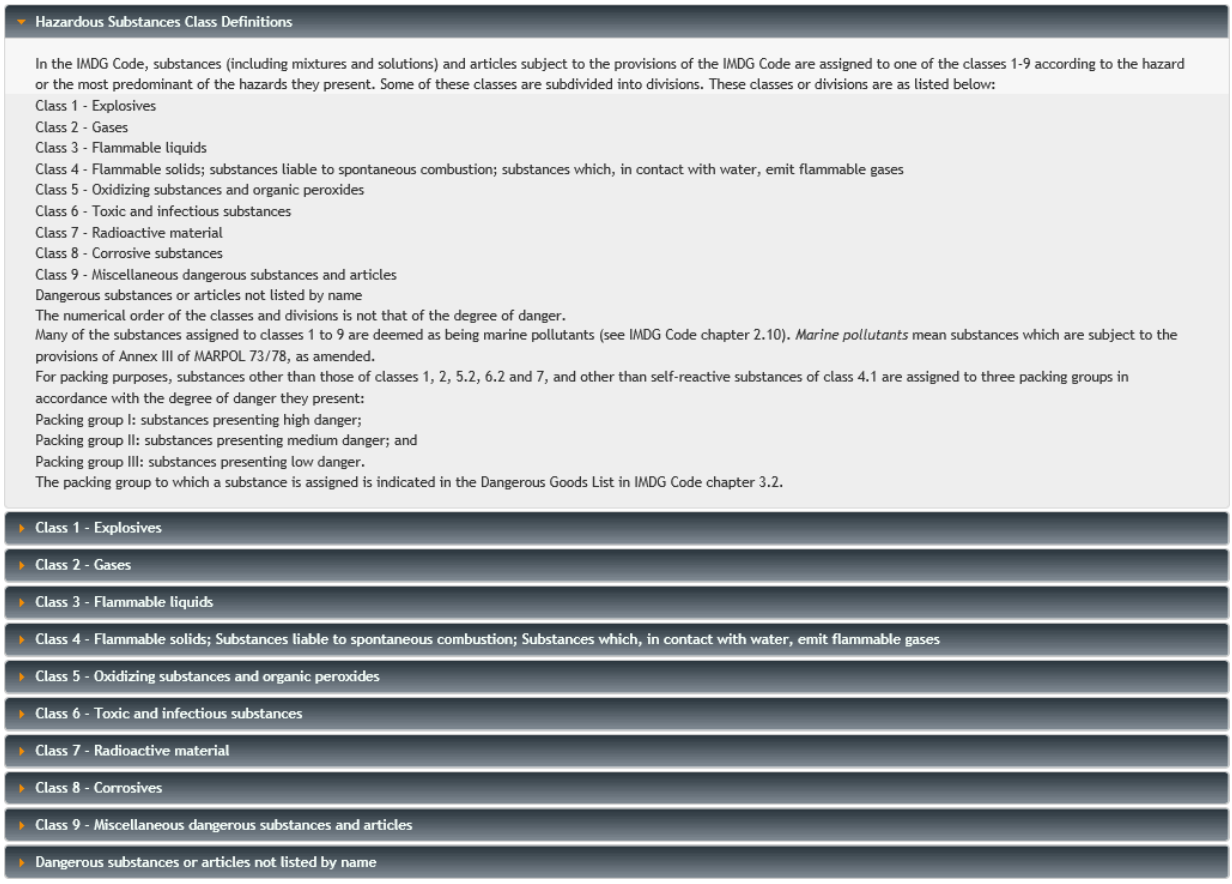


Fig. 45 Only allowed in open unit

If any of the above conditions occur the load is invalid and you are not allowed to proceed. The screens above show some examples of items that are incompatible with the type of container or type of sailing.

5 Hazard Class Definitions

This option gives you detailed explanations of the different classes in IMDG Code. There are eleven frames available as shown below.



The frames can be displayed by clicking on the triangle  to open the frame you select. This will automatically close the frame that was previously open.

6 Segregation table from 7.2.4

The following table shows the general provisions of segregation between classes of dangerous goods.

Class	1.1 1.2 1.5	1.3 1.6	1.4	2.1	2.2	2.3	3	4.1	4.2	4.3	5.1	5.2	6.1	6.2	7	8	9
1.1, 1.2, 1.5	*	*	*	4	2	2	4	4	4	4	4	4	2	4	2	4	X
1.3, 1.6	*	*	*	4	2	2	4	3	3	4	4	4	2	4	2	2	X
1.4	*	*	*	2	1	1	2	2	2	2	2	2	X	4	2	2	X
2.1	4	4	2	X	X	X	2	1	2	2	2	2	X	4	2	1	X
2.2	2	2	1	X	X	X	1	X	1	X	X	1	X	2	1	X	X
2.3	2	2	1	X	X	X	2	X	2	X	X	2	X	2	1	X	X
3	4	4	2	2	1	2	X	X	2	2	2	2	X	3	2	X	X
4.1	4	3	2	1	X	X	X	X	1	X	1	2	X	3	2	1	X
4.2	4	3	2	2	1	2	2	1	X	1	2	2	1	3	2	1	X
4.3	4	4	2	2	X	X	2	X	1	X	2	2	X	2	2	1	X
5.1	4	4	2	2	X	X	2	1	2	2	X	2	1	3	1	2	X
5.2	4	4	2	2	1	2	2	2	2	2	2	X	1	3	2	2	X
6.1	2	2	X	X	X	X	X	X	1	X	1	1	X	1	X	X	X
6.2	4	4	4	4	2	2	3	3	3	2	3	3	1	X	3	3	X
7	2	2	2	2	1	1	2	2	2	2	1	2	X	3	X	2	X
8	4	2	2	1	X	X	X	1	1	1	2	2	X	3	2	X	X
9	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Fig. 46 Segregation table

X away from

1 separated from

2 separated by a complete compartment or hold from

3 separated longitudinally by an intervening complete compartment or hold from

4 the Dangerous Goods List has to be consulted to verify whether there are specific segregation provisions

* see 7.2.7.1 of this chapter for the segregation provisions between class 1 substances or articles

Important

i) Since the properties of substances or articles within each class may vary greatly, the individual schedules should always be consulted for particular requirements for segregation as, in the case of conflicting requirements, these take precedence over the general requirements.

ii) Segregation should also take account of a single subsidiary risk.

Table of figures