

UN/SCEGHS/3/INF.5/Add.6

Sub-Committee of Experts on the Globally
Harmonized System of Classification
and Labelling of Chemicals
(Third session, 10-12 July 2002)

DRAFT GHS

ANNEX 1

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ANNEX 21










ALLOCATION OF LABEL ELEMENTS



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ANNEX 1



Allocation of label elements









A1.1 For the GHS, the assigned pictogram, signal word and hazard statement are given in that order for each hazard category of the hazard class. Where the hazard class and or categories are covered under the UN [Transport of Dangerous Goods](#) Model Regulations ([TDG/MR](#)), the assigned corresponding pictogram is given for each category below the GHS requirements.







EXPLOSIVES					
Unstable/ Division 1.1	Division 1.2	Division 1.3	Division 1.4	Division 1.5	Division 1.6
			1.4 * Warning Fire or projection hazard	1.5 * Warning May explode in fire	1.6 *
Danger Explosive; mass explosion hazard	Danger Explosive; severe projection hazard	Danger Explosive; fire, blast or projection hazard	* Apply to substances or mixtures subject to UN TDG/MR Model Regulations requirements only (see also par. 41.4.10.5.1 (d) (ii))		
					
Notes on colours of TDG- UN Model Regulations pictogram elements:					
(1) For Divisions 1.1, 1.2 and 1.3: Symbol exploding bomb: black; background: orange; figure “1” in bottom corner.					
(2) For Divisions 1.4, 1.5, 1.6: Background: orange; Figures: black; figure “1” in bottom corner.					





FLAMMABLE GASES				
Category 1	Category 2	-	-	Note
 <p>Danger Extremely flammable gas</p>	<p>No symbol</p> <p>Warning Flammable gas</p>			<p>Under the TDG/MRUN Model Regulations, the symbol, number and border line may be shown in black instead of white. The background colour stays red in both cases.</p>
	<p>NOT REQUIRED UNDER THE TDG/MRUN Model Regulations</p>			










FLAMMABLE AEROSOLS				
Category 1	Category 2	-	-	Note
 <p>Danger Extremely flammable aerosol</p>	 <p>Warning Flammable aerosol</p>			<p>Under the TDG/MRUN Model Regulations, the symbol, number and border line may be shown in black instead of white. The background colour stays red in both cases.</p>
				



OXIDIZING GASES				
Category 1	-	-	-	Notes
 <p>Danger May cause or intensify fire; oxidizer</p>				
				Pictogram colours: Symbol and number: black. Background: yellow.



GASES UNDER PRESSURE				
Compressed gas	Liquefied gas	Refrigerated liquefied gas	Dissolved gas	Notes on TDG/MRUN Model Regulations pictogram
 <p>Warning Contains gas under pressure; may explode if heated</p>	 <p>Warning Contains gas under pressure; may explode if heated</p>	 <p>Warning Contains refrigerated gas; may cause cryogenic burns or injury</p>	 <p>Warning Contains gas under pressure; may explode if heated</p>	<p>(1) Not required for toxic or flammable gases.</p> <p>(2) The symbol, number and border line may be shown in white instead of black. The background stays green in both cases.</p>
				





FLAMMABLE LIQUIDS				
Category 1	Category 2	Category 3	Category 4	
			No symbol Warning Combustible liquid	Note on TDG/MRUN Model Regulations pictogram The symbol, number and border line may be shown in black instead of white. The background colour stays red in both cases.
Danger Extremely flammable liquid and vapour	Danger Highly flammable liquid and vapour	Warning Flammable liquid and vapour	NOT REQUIRED UNDER THE TDG/MRUN Model Regulations	
				







FLAMMABLE SOLIDS				
Category 1	Category 2	-	-	Note
				Colours for TDG UN Model Regulations Pictogram: Symbol and figure: black. Background: white with seven vertical stripes.
Danger Flammable solid	Warning Flammable solid			
				







SELF-REACTIVE SUBSTANCES				
Type A	Type B	Types C and D	Types E and F	Type G
 Danger Heating may cause an explosion	  Danger Heating may cause a fire or explosion	 Danger Heating may cause a fire	 Warning Heating may cause a fire	No label elements are allocated for this category
Same as for explosives (follow same symbol selection process)	 			Not required under TDG/MRUN Model Regulations
Notes: (1) For Type B, under TDG/MRUN Model Regulations , special provision 181 may apply (Exemption of explosive label with competent authority approval. See Chapter 3.3 of UN Model Regulations TDG for more details). (2) For colours of UN Model Regulations TDG pictograms see descriptions for Flammable Solids and Explosives.				







PYROPHORIC LIQUIDS				
Category 1	-	-	-	Notes
 <p>Danger</p> <p>Catches fire spontaneously if exposed to air</p>				<p><u>Colours of UN Model Regulations TDG pictogram:</u> Symbol and Figure: black. Background: upper half: white; lower half: red.</p>
				










PYROPHORIC SOLIDS				
Category 1	-	-	-	Note
 <p>Danger</p> <p>Catches fire spontaneously if exposed to air</p>				<p><u>Colours of UN Model Regulations TDG pictogram:</u> See table for pyrophoric liquids. Symbol and Figure: black. Background: upper half: white; lower half: red.</p>
				



SELF-HEATING SUBSTANCES				
Category 1	Category 2	-	-	Note
 <p>Danger Self-heating; may catch fire</p>	 <p>Warning Self-heating in large quantities; may catch fire</p>			<p>Colours of TDG UN Model Regulations pictogram: See table for pyrophoric liquids. Symbol and Figure: black. Background: upper half: white; lower half: red.</p>
				








SUBSTANCES, WHICH IN CONTACT WITH WATER, EMIT FLAMMABLE GASES				
Category 1	Category 2	Category 3	-	Note
 <p>Danger</p> <p>In contact with water releases flammable gases which may ignite spontaneously</p>	 <p>Danger</p> <p>In contact with water releases flammable gases</p>	 <p>Warning</p> <p>In contact with water releases flammable gases</p>		<p>Under the TDG/MRUN Model Regulations, the symbol, number and border line may be shown in black instead of white. The background stays blue in both cases.</p>
				








OXIDIZING LIQUIDS				
Category 1	Category 2	Category 3	-	Note
 <p>Danger</p> <p>May cause fire or explosion; strong oxidizer</p>	 <p>Danger</p> <p>May intensify fire; oxidizer</p>	 <p>Warning</p> <p>May intensify fire; oxidizer</p>		<p>UN Model Regulations TDG Pictogram colours: Symbol and number: black. Background: yellow.</p>
				








OXIDIZING SOLIDS				
Category 1	Category 2	Category 3	-	Note
 <p>Danger May cause fire or explosion; strong oxidizer</p>	 <p>Danger May intensify fire; oxidizer</p>	 <p>Warning May intensify fire; oxidizer</p>		UN Model Regulations TDG Pictogram colours: Symbol and number: black. Background: yellow. See table above on Oxidizing liquids.
				








ORGANIC PEROXIDES				
Type A	Type B	Types C and D	Types E and F	Type G
 Danger Heating may cause An explosion	  Danger Heating may cause a fire or explosion	 Danger Heating may cause a fire	 Warning Heating may cause a fire	There are no label elements allocated to this hazard class.
Same as for explosives (follow same symbol selection process)	 			NOT REQUIRED UNDER UN Model RegulationsTDG/ MR
Notes: (1) For Type B, under UN Model RegulationsTDG/MR , special provision 181 may apply (Exemption of explosive label with competent authority approval. See Chapter 3.3 of UN Model RegulationsRTDG for more details). (2) UN Model RegulationsTDG Pictogram colours: See tables for Oxidizing liquids and Explosives.				



CORROSIVE TO METALS				
Category 1	-	-	-	Note
 Warning May be corrosive to metals				UN Model Regulations TDG pictogram colours: Symbol: black background: upper half: white; lower half: black with white border; Figure 8: white.
				



ACUTE TOXICITY: ORAL				
Category 1	Category 2	Category 3	Category 4	Category 5
 <p>Danger Fatal if swallowed</p>	 <p>Danger Fatal if swallowed</p>	 <p>Danger Toxic if swallowed</p>	 <p>Warning Harmful if swallowed</p>	<p>No symbol</p> <p>Warning May be harmful if swallowed</p>
			<p>NOT REQUIRED UNDER THE UN Model RegulationsTDG/MR</p> <p>Notes: For gases and aerosols under the UN Model RegulationsTDG/MR, replace the number 6 in the bottom corner of the pictogram by 2. UN Model RegulationsTDG pictogram colours: Symbol and figure: black. Background: white.</p>	

ACUTE TOXICITY: DERMAL				
Category 1	Category 2	Category 3	Category 4	Category 5
 <p>Danger Fatal in contact with skin</p>	 <p>Danger Fatal in contact with skin</p>	 <p>Danger Toxic in contact with skin</p>	 <p>Warning Harmful in contact with skin</p>	<p>No symbol</p> <p>Warning May be harmful in contact with skin</p>
			<p>NOT REQUIRED UNDER THE UN Model Regulations^{TDG/MR}</p> <p>Notes: For gases and aerosols under the UN Model Regulations^{TDG/MR}, replace the number 6 in the bottom corner of the pictogram by 2. For UN Model Regulations^{TDG} pictogram colours: see table above on acute toxicity oral. Symbol and figure: black. Background: white.</p>	


ACUTE TOXICITY: INHALATION				
Category 1	Category 2	Category 3	Category 4	Category 5
				No symbol
Danger Fatal if inhaled	Danger Fatal if inhaled	Danger Toxic if inhaled	Warning Harmful if inhaled	Warning May be harmful if inhaled
			<p>NOT REQUIRED UNDER THE UN Model Regulations TDG/MR</p> <p>Notes: For gases and aerosols under the UN Model Regulations TDG/MR, replace the number 6 in the bottom corner of the pictogram by 2. For UN Model Regulations TDG pictogram colours: see table above on acute toxicity oral. Symbol and figure: black. Background: white.</p>	

SKIN CORROSION/IRRITATION				
Category 1A	Category 1B	Category 1C	Category 2	Category 3
				No symbol
Danger Causes severe skin burns and eye damage	Danger Causes severe skin burns and eye damage	Danger Causes severe skin burns and eye damage	Warning Causes skin irritation	Warning Causes mild skin irritation
			<p>NOT REQUIRED UNDER THE TDG/MR UN Model Regulations</p> <p>Note: For TDG UN Model Regulations pictogram pictogram colours: see table above on Corrosive to metals. Symbol: black background: upper half: white; lower half: black with white border; Figure 8: white.</p>	







SEVERE EYE DAMAGE/ EYE IRRITATION				
Category 1	Category 2A	Category 2B	-	-
		No symbol		
Danger Causes severe eye damage	Warning Causes severe eye irritation	Warning Causes eye irritation		
NOT REQUIRED UNDER THE TDG/MRUN Model Regulations				







RESPIRATORY SENSITIZATION *				
Category 1	-	-	-	-
  Danger May cause allergy or asthma symptoms or breathing difficulties if inhaled	<p>* Note: There has been considerable discussion about what to convey to those exposed about sensitisation effects, and at what point it should be conveyed. While the current cut-off for mixtures is 1%, it appears that the major systems all believe information should be conveyed below that level. This may be appropriate both to warn those already sensitised, as well as to warn those who may become sensitised. [Reserved]*</p>			
NOT REQUIRED UNDER THE TDG/MRUN Model Regulations				







* [Further work is included in the work programme of the Sub-Committee of Experts on the GHS.](#)



DERMAL SENSITIZATION*				
Category 1	-	-	-	-
 Warning May cause an allergic skin reaction	<p>*Note: There has been considerable discussion about what to convey to those exposed about sensitisation effects, and at what point it should be conveyed. While the current cut-off for mixtures is 1%, it appears that the major systems all believe information should be conveyed below that level. This may be appropriate both to warn those already sensitised, as well as to warn those who may become sensitised. [Reserved]*</p>			
NOT REQUIRED UNDER THE FDG/MRUN Model Regulations				





* [Further work is included in the work programme of the Sub-Committee of Experts on the GHS.](#)


GERM CELL MUTAGENICITY				
Category 1A	Category 1B	Category 2	-	-
  Danger May cause genetic defects <i>(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)</i>	  Danger May cause genetic defects <i>(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)</i>	  Warning Suspected of causing genetic defects <i>(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)</i>		
NOT REQUIRED UNDER THE TDG/MRUN Model Regulations				



CARCINOGENICITY				
Category 1A	Category 1B	Category 2	-	-
  Danger May cause cancer <i>(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)</i>	  Danger May cause cancer <i>(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)</i>	  Warning Suspected of causing cancer <i>(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)</i>		
NOT REQUIRED UNDER THE TDG/MRUN Model Regulations				

TOXIC TO REPRODUCTION				
Category 1A	Category 1B	Category 2	Additional Category	-
  Danger May damage fertility or the unborn child <i>(state specific effect if known or route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)</i>	  Danger May damage fertility or the unborn child <i>(state specific effect if known or route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)</i>	  Warning Suspected of damaging fertility or the unborn child <i>(state specific effect if known or route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)</i>	Effects on or via lactation May cause harm to breast-fed children.	
NOT REQUIRED UNDER THE UN Model Regulations FDG/MR				

TARGET ORGAN SYSTEMIC TOXICITY (SINGLE EXPOSURE)				
Category 1	Category 2	-	-	-
 <p>Danger</p> <p>Causes damage to (state all organs affected, or use a general statement where there is no definite evidence that other organs are not affected) if (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)</p>	 <p>Warning</p> <p>May cause damage to (state all organs affected, or use a general statement where there is no definite evidence that other organs are not affected) if (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)</p>			
NOT REQUIRED UNDER THE UN Model Regulations FDG/MR				

TARGET ORGAN SYSTEMIC TOXICITY (REPEATED EXPOSURE)				
Category 1	Category 2	-	-	-
  Danger	  Warning			
<p><i>Causes (state all organs affected, or use a general statement where there is no definite evidence that other organs are not affected) damage through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)</i></p>	<p><i>May cause (state all organs affected, or use a general statement where there is no definite evidence that other organs are not affected) damage through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)</i></p>			
NOT REQUIRED UNDER THE UN Model Regulations FDG/MR				

AQUATIC TOXICITY (ACUTE)				
Category 1	Category 2	Category 3	-	Note
 <p>Warning Very toxic to aquatic life</p>	<p>No symbol</p> <p>No signal word</p> <p>Toxic to aquatic life</p>	<p>No symbol</p> <p>No signal word</p> <p>Harmful to aquatic life</p>	-	<p>Presently not covered under the UN Model Regulations TDC/MR if the substance presents any other hazards covered by UN Model Regulations TDC/MR. If no other hazard is presented, the UN Model Regulations TDC/MR Class 9 label is applicable. The UN Model Regulations TDC/MR requirements are being revised.</p>

AQUATIC TOXICITY (CHRONIC)				
Category 1	Category 2	Category 3	Category 4	Note
 <p>Warning</p> <p>Very toxic to aquatic life with long lasting effects</p>	 <p>No signal word</p> <p>Toxic to aquatic life with long lasting effects</p>	<p>No symbol</p> <p>No signal word</p> <p>Harmful to aquatic life with long lasting effects</p>	<p>No symbol</p> <p>No signal word</p> <p>May cause long lasting harmful effects to aquatic life</p>	<p>Presently not covered under the UN Model Regulations TDG/MR if the substance presents any other hazards covered by UN Model Regulations TDG/MR. If no other hazard is presented, UN Model Regulations TDG/MR Class 9 label is applicable. The UN Model Regulations TDG/MR requirements being revised.</p>