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| **UN/SCEGHS/37/INF.3 Rev.1** |

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| **Committee of Experts on the Transport of Dangerous Goods  and on the Globally Harmonized System of Classification and Labelling of Chemicals 5 July 2019** | |
| **Sub-Committee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals** |  |
| **Thirty-seventh session** |  |
| Geneva, 8-10 July 2019  Item 3(b) of the provisional agenda  **Hazard communication:  improvement of annexes 1 to 3 and further rationalization of precautionary statements** |  |

Proposed changes to Annex 1

Transmitted by the expert from the United Kingdom on behalf of the informal working group on improving Annexes 1, 2 and 3 of the GHS

This informal document sets out the changes proposed in working document ST/SG/AC.10/C.4/2019/2. New text is shown in red, and deleted text is shown in ~~strikethrough~~. As it is difficult to clearly display the changes between existing adjacent table entries to the proposed merged table entries, only the merged entries are displayed in this document.

The differences in the proposed text presented in this document (INF.3 Rev.1) as compared to that presented in UN/SCEGHS/37/INF3 are shown in red underlined for new text and deleted text is shown in red ~~strikethrough~~.

Annex 1

Classification and labelling summary tables

***NOTE 1:***  *The codification of hazard statements is further explained in Annex 3 (Section 1). The hazard statement codes are intended to be used for reference purposes only. They are not part of the hazard statement text and should not be used to replace it.*

***NOTE 2:***  *To provide clarity, assist labelling practicioners and enable comparison between equivalent classification and labelling systems under the GHS and the UN Recommendations on the Transport of Dangerous Goods Model Regulations (UN Model Regulations), ~~UN Model Regulations~~transport hazard classes, ~~or~~ divisions and pictograms are included in Tables A1.1 to A1.30. However, it should be noted that in these tables the UN Model Regulations classification and labelling entries are provided for indicative purposes only.~~and for~~ For ~~the definitive~~ transport purposes, the classification and labelling provisions prescribed by UN Model Regulations shall be used (see also Chapter 1.4, section 1.4.10 of the GHS) ~~classification and labelling under these Regulations please refer to the UN Model Regulations.~~*

***NOTE 3:*** *GHS hazard pictograms are displayed with a black symbol on a white background within a diamond shaped red border. The ~~UN Model Regulations~~transport pictograms (commonly referred to as labels in the Model Regulations) shall be displayed on a background of contrasting colour or, where appropriate, shall have either a dotted or solid boundary line as provided in Chapter 5.2 ~~Volume II~~ of the UN Model Regulations[[1]](#footnote-2) and in Tables A1.1 to A1.30 below. For some hazard categories, the symbol, number and border line of the ~~UN Model Regulations~~transport pictogram may be shown in white instead of black. Where such an alternative ~~UN Model Regulations pictogram~~ is available it is ~~provided~~ shown in the relevant Tables below (see Tables A1.2, A1.3, A1.4; A1.5, A1.6, A1.12, A1.15,* *A1.17).*

A1.1 Explosives (see Chapter 2.1 for classification criteria)

| Classification | | | Labelling | | | | Hazard statement codes |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Hazard class | GHS hazard category | UN Model Regulations class or division | GHS pictogram | UN Model Regulations pictograma | Signal word | Hazard statement |
| **Explosives** | **Unstable explosive** | |  | ***(Transport not allowed)*** | **Danger** | Unstable explosive | H200 |
| **1.1** | | 1-2 | Explosive; mass explosion hazard | H201 |
| **1.2** | | Explosive; severe projection hazard | H202 |
| **1.3** | | Explosive; fire, blast or projection hazard | H203 |
| **1.4** | |  | **Warning** | Fire or projection hazard | H204 |
| **1.5** | | *No pictogram* |  | **Danger** | May mass explode in fire | H205 |
| **1.6** | |  | *No signal word* | *No hazard statement* | *None* |

a *Under the UN Model Regulations,* *(\*)* *~~signifies~~ indicates the p~~P~~lace for compatibility group. ~~The pictogram for Divisions 1.1, 1.2 and 1.3 is also assigned to substances which have an explosive subsidiary risk, but without the indication of the division number and the compatibility group (see also “Self-reactive substances and mixtures” and “Organic peroxides”).~~*

A1.2 Flammable gases (see Chapter 2.2 for classification criteria)

| **Classification** | | | | | **Labelling** | | | | **Hazard statement codes** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | | | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictograma** | **Signal word** | **Hazard statement** |
| **Flammable gases** | **1A** | **Flammable gas** | | **2.1** |  | **Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\rouge2.tif**https://www.unece.org/fileadmin/DAM/trans/danger/publi/ghs/TDGpictograms/rouge2_noir.gif  or | **Danger** | Extremely flammable gas | H220 |
| **Pyrophoric gas** | | Extremely flammable gas | H220 |
| May ignite spontaneously if exposed to air | H232 |
| **Chemically unstable gas** | **A** | Extremely flammable gas | H220 |
| May react explosively even in the absence of air | H230 |
| **B** | Extremely flammable gas | H220 |
| May react explosively even in the absence of air at elevated pressure and/or temperature | H231 |
| **1B** | | | Flammable gas | H221 |
| **2** | | | *Not applicable* | *No pictogram* | *Not applicable*  *~~Not required~~* | **Warning** |

a *Under the UN ~~Recommendations on the Transport of Dangerous Goods,~~ Model Regulations, ~~the symbol, number and border line may be shown in black instead of white. The background colour stays red in both cases~~. pyrophoric gases and chemically unstable gases (A and B) are classified based on their flammability in Class 2, Division 2.1 ~~do not have a specific UN Model Regulations classification~~. ~~However, as these hazard subcategories are also flammable gases, by default they are classified under this hazard class and bear the Division 2.1 UN Model pictogram.~~*

A1.3 Aerosols and Chemicals under pressure (see Chapter 2.3 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement codes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictogram~~a~~** | **Signal word** | **Hazard statement** |
| **Aerosols**  **(section 2.3.1)** | **1** | **2.1** |  | **Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\rouge2.tif**https://www.unece.org/fileadmin/DAM/trans/danger/publi/ghs/TDGpictograms/rouge2_noir.gif  or | **Danger** | Extremely flammable aerosol | H222 |
| Pressurized container: may burst if heated | H229 |
| **2** | **Warning** | Flammable aerosol | H223 |
| Pressurized container: may burst if heated | H229 |
| **3** | **2.2** | *No pictogram* | https://www.unece.org/fileadmin/DAM/trans/danger/publi/ghs/TDGpictograms/vert_blanc.gif**Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\vert.tif**  or | Pressurized container: may burst if heated | H229 |
| **Chemicals under pressure**  **(section 2.3.2)** | **1** | **2.1** | and | **Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\rouge2.tif**https://www.unece.org/fileadmin/DAM/trans/danger/publi/ghs/TDGpictograms/rouge2_noir.gif  or | **Danger** | Extremely flammable chemical under pressure: may explode if heated | H282 |
| **2** | **Warning** | Flammable chemical under pressure: may explode if heated | H283 |
| **3** | **2.2** |  | https://www.unece.org/fileadmin/DAM/trans/danger/publi/ghs/TDGpictograms/vert_blanc.gif**Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\vert.tif**  or | Chemical under pressure: may explode if heated | H284 |

~~a~~ *~~Under the UN Recommendations on the Transport of Dangerous Goods, Model Regulations, the symbol, number and border line may be shown in black or white. The background colour is red for categories 1 and 2 and green for category 3~~*~~.~~

A1.4 Oxidizing gases (see Chapter 2.4 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement code** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictograma** | **Signal word** | **Hazard statement** |
| **Oxidizing gases** | **1** | **2.2** |  | https://www.unece.org/fileadmin/DAM/trans/danger/publi/ghs/TDGpictograms/vert_blanc.gif**Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\vert.tif**  or  and  **Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\jaune5-1.tif** | **Danger** | May cause or intensify fire; oxidizer | H270 |

a *Under the UN Model Regulations, oxidising gases are classified under Division 2.2 (non-flammable, non-toxic gases) according to their primary hazard. However, under the UN Model Regulations as these substances also have an oxidizing subsidiary hazard ~~of being oxidising substances~~, they are assigned ~~bear~~ both a Division 2.2 (gas cylinder) and ~~the~~a Division 5.1 (flame over circle) ~~UN Model pictograms~~transport pictogram.*

A1.5 Gases under pressure (see Chapter 2.5 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement codes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictograma** | **Signal word** | **Hazard statement** |
| **Gases under pressure** | **Compressed gas** | **2.2** |  | **Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\vert.tif**https://www.unece.org/fileadmin/DAM/trans/danger/publi/ghs/TDGpictograms/vert_blanc.gif  or | **Warning** | Contains gas under pressure; may explode if heated | H280 |
| **Liquefied gas** | Contains gas under pressure; may explode if heated |
| **Refrigerated liquefied gas** | Contains refrigerated gas; may cause cryogenic burns or injury | H281 |
| **Dissolved gas** | Contains gas under pressure; may explode if heated | H280 |

a *Under the UN ~~Recommendations on the Transport of Dangerous Goods,~~ Model Regulations, ~~the symbol, number and border line may be shown in white instead of black. The background colour stays green in both cases. T~~this pictogram is not required for gases under pressure that are also toxic or flammable gases. In those cases, ~~as~~ the applicable toxic or flammable hazard class pictogram ~~for these hazard classes~~ is used instead ~~(see also note “a” to tables A1.18 and A1.2)~~.*

A1.6 Flammable liquids (see Chapter 2.6 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement codes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division a** | **GHS pictogram** | **UN Model Regulations pictograma** | **Signal word** | **Hazard statement** |
| **Flammable liquids** | **1** | **~~Class~~ 3** |  | **Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\rouge3.tif**https://www.unece.org/fileadmin/DAM/trans/danger/publi/ghs/TDGpictograms/rouge3_noir.gifor | **Danger** | Extremely flammable liquid and vapour | H224 |
| **2** | Highly flammable liquid and vapour | H225 |
| **3** | **Warning** | Flammable liquid and vapour | H226 |
| **4** | *Not applicable* | *No pictogram* | *Not applicable*  *~~Not required~~* | Combustible liquid | H227 |

~~a~~ *~~Under the UN~~ ~~Recommendations on the Transport of Dangerous Goods, Model Regulations, the symbol, number and border line may be shown in black instead of white. The background colour stays red in both cases.~~* *~~flammable liquids are classified under Class 3 without any Division or Category.~~*

A1.7 Flammable solids (see Chapter 2.7 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement codes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictogram** | **Signal word** | **Hazard statement** |
| **Flammable solids** | **1** | **4.1** |  | **Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\stripes.tif** | **Danger** | Flammable solid | H228 |
| **2** | **Warning** |

A1.8 Self-reactive substances and mixtures (see Chapter 2.8 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement codes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictograma** | **Signal word** | **Hazard statement** |
| **Self-reactive substances and mixtures** | **Type A** | **4.1**  **Type A** |  | *(Transport ~~not~~ may not be allowed)~~b~~* | **Danger** | Heating may cause an explosion | H240 |
| **Type B** | **4.1**  **Type B** | and | ***Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\stripes.tif***  and if applicable a: | **Danger** | Heating may cause a fire or explosion | H241 |
| **Types C and D** | **4.1**  **Types C and D** |  | ***Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\stripes.tif*** | **Danger** | Heating may cause a fire | H242 |
| **Types E and F** | **4.1**  **Types E and F** | **Warning** |
| **Type G** | *~~Not applicable~~*  **Type G** | *No pictogram* | *Not applicable*  *~~Not required~~* | *No signal word* | *No hazard statement* | *None* |

a *~~For Type B, u~~Under the UN ~~Recommendations on the Transport of Dangerous Goods,~~ Model Regulations, where a Type B substance or mixture has an explosive subsidiary hazard, then the transport pictogram for Divisions 1.1, 1.2 and 1.3 shall also be used without the indication of the division number or the compatibility group. ~~for~~ For a substance or mixture of hazard category Type B, special provision 181 may apply (Exemption of explosive label with competent authority approval. See Chapter 3.3 of the UN Model Regulations for more details). ~~Where a Type B substance or mixture has an explosive subsidiary risk, then the orange pictogram assigned to Divisions 1.1, 1.2 and 1.3 is also used but without the indication of the division number or the compatibility group.~~*

~~b~~ *~~May not be acceptable for transport in the packaging in which it is tested (See Chapter 2.5, para 2.5.3.2.2 of the UN Model Regulations)~~.*

A1.9 Pyrophoric liquids (see Chapter 2.9 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement code** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictogram** | **Signal word** | **Hazard statement** |
| **Pyrophoric liquids** | **1** | **4.2** |  | **Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\blan-red.gif** | **Danger** | Catches fire spontaneously if exposed to air | H250 |

A1.10 Pyrophoric solids (see Chapter 2.10 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement code** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictogram** | **Signal word** | **Hazard statement** |
| **Pyrophoric solids** | **1** | **4.2** |  | **Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\blan-red.gif** | **Danger** | Catches fire spontaneously if exposed to air | H250 |

A1.11 Self-heating substances and mixtures (see Chapter 2.11 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement codes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictogram** | **Signal word** | **Hazard statement** |
| **Self-heating substances and mixtures** | **1** | **4.2** |  | **Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\blan-red.gif** | **Danger** | Self-heating; may catch fire | H251 |
| **2** | **Warning** | Self-heating in large quantities; may catch fire | H252 |

A1.12 Substances and mixtures, which in contact with water, emit flammable gases (see Chapter 2.12 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement codes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictogram~~a~~** | **Signal word** | **Hazard statement** |
| **Substances and mixtures, which in contact with water, emit flammable gases** | **1** | **4.3** |  | https://www.unece.org/fileadmin/DAM/trans/danger/publi/ghs/TDGpictograms/bleu4_noir.gif  **Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\bleu4.tif**  or | **Danger** | In contact with water releases flammable gases which may ignite spontaneously | H260 |
| **2** | **Danger** | In contact with water releases flammable gases | H261 |
| **3** | **Warning** |

~~a~~ *~~Under the UN Recommendations on the Transport of Dangerous Goods, Model Regulations, the symbol, number and border line may be shown in black instead of white. The background colour stays blue in both cases.~~*

A1.13 Oxidizing liquids (see Chapter 2.13 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement codes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictogram** | **Signal word** | **Hazard statement** |
| **Oxidizing liquids** | **1** | **5.1** |  | **Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\jaune5-1.tif** | **Danger** | May cause fire or explosion; strong oxidizer | H271 |
| **2** | **Danger** | May intensify fire; oxidizer | H272 |
| **3** | **Warning** |

A1.14 Oxidizing solids (see Chapter 2.14 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement codes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictogram** | **Signal word** | **Hazard statement** |
| **Oxidizing solids** | **1** | **5.1** |  | **Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\jaune5-1.tif** | **Danger** | May cause fire or explosion; strong oxidizer | H271 |
| **2** | **Danger** | May intensify fire; oxidizer | H272 |
| **3** | **Warning** |

A1.15 Organic peroxides (see Chapter 2.15 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement codes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictograma** | **Signal word** | **Hazard statement** |
| **Organic peroxides** | **Type A** | **5.2**  **Type A** |  | *(Transport ~~not~~ may not be allowed)~~b~~* | **Danger** | Heating may cause an explosion | H240 |
| **Type B** | **5.2**  **Type B** | and | **Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\5-2red.tif**https://www.unece.org/fileadmin/DAM/trans/danger/publi/ghs/TDGpictograms/5-2red_noir.gif  or  andif applicable a: | **Danger** | Heating may cause a fire or explosion | H241 |
| **Types C and D** | **5.2**  **Types C  and D** |  | https://www.unece.org/fileadmin/DAM/trans/danger/publi/ghs/TDGpictograms/5-2red_noir.gif**Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\5-2red.tif**  or | **Danger** | Heating may cause a fire | H242 |
| **Types E and F** | **5.2**  **Types E  and F** | **Warning** |
| **Type G** | *~~Not applicable~~*  **Type G** | *No pictogram* | *Not applicable ~~Not required~~* | *No signal word* | *No hazard statement* | *None* |

a *~~For Type B, u~~Under the UN ~~Recommendations on the Transport of Dangerous Goods,~~ Model Regulations, where a Type B substance or mixture has an explosive subsidiary hazard, then the transport pictogram for Divisions 1.1, 1.2 and 1.3 shall also be used without the indication of the division number or the compatibility group. ~~for~~ For a substance or mixture of hazard category Type B, special provision 181 may apply (Exemption of explosive label with competent authority approval. See Chapter 3.3 of the UN Model Regulations for more details). ~~Where a Type B substance has an explosive subsidiary risk, then the orange pictogram assigned to Divisions 1.1, 1.2 and 1.3 is also used, but without the indication of the division number or the compatibility group.~~*

~~b~~ *~~May not be acceptable for transport in the packaging in which it is tested (See Chapter 2.5, para 2.5.3.2.2 of the UN Model Regulations).~~*

A1.16 Corrosive to metals (see Chapter 2.16 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement code** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictogram** | **Signal word** | **Hazard statement** |
| **Corrosive to metals** | **1** | **Class 8** |  | **Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\acide.tif** | **Warning** | May be corrosive to metals | H290 |

A1.17 Desensitized explosives (see Chapter 2.17 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement codes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division a** | **GHS pictogram** | **UN Model Regulations pictograma** | **Signal word** | **Hazard statement** |
| **Desensitized explosives** | **1** | **~~Class~~ 3** (for liquids)  **or**  **4.1** (for solids) |  | **Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\rouge3.tif***~~Not applicable~~*  **For liquids:**  or  https://www.unece.org/fileadmin/DAM/trans/danger/publi/ghs/TDGpictograms/rouge3_noir.gif  **For solids:**  **Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\stripes.tif** | **Danger** | Fire, blast projection hazard; increased risk of explosion if desensitizing agent is reduced | H206 |
| **2** | **Danger** | Fire or projection hazard; increased risk of explosion if desensitizing agent is reduced | H207 |
| **3** | **Warning** |
| **4** | **Warning** | Fire hazard; increased risk of explosion if desensitizing agent is reduced | H208 |

~~a~~ *~~Under the UN Model Regulations, cClassification and labelling of desensitized explosives are addressed in transport regulations in a different way to that under the GHS. In transport:~~*

* *~~Liquid desensitized explosives are classified in Class 3 (flammable liquids) for transport purposes without any Division or Category and shall bear a Class 3 label UN Model Regulationstransport pictogram (see Chapter 2.3, section 2.3.1.4 of the UN Model Regulations).~~*
* *~~Solid desensitized explosives are classified in Division 4.1 (flammable solids, self-reactive substances, solid desensitised explosives and polymerising substances) and shall bear a Division 4.1 label UN Model Regulationstransport pictogram (see Chapter 2.4, section 2.4.2.4 of the UN Recommendations on the Transport of Dangerous Goods, Model Regulations).~~*

A1.18 Acute toxicity (see Chapter 3.1 for classification criteria)

| **Classification** | | | | **Labelling** | | | | **Hazard statement codes** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | | **UN Model Regulations class or division ~~a~~** | **GHS pictogram** | **UN Model Regulations pictogram~~a~~** | **Signal word** | **Hazard statement** |
| **Acute toxicity** | **1, 2** | **Oral** | **2.3** (for toxic gases)  **or**  **6.1** (for toxic substances~~b~~a) |  | **For toxic gases:**  https://www.unece.org/fileadmin/DAM/trans/danger/publi/ghs/TDGpictograms/skull_2.gif  **For toxic substances~~b~~a:**  **Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\skull6.tif** | **Danger** | Fatal if swallowed | H300 |
| **Dermal** | Fatal in contact with skin | H310 |
| **Inhalation** | Fatal if inhaled | H330 |
| **3** | **Oral** | **Danger** | Toxic if swallowed | H301 |
| **Dermal** | Toxic in contact with skin | H311 |
| **Inhalation** | Toxic if inhaled | H331 |
| **4** | **Oral** | *Not applicable* |  | *Not applicable ~~Not required~~* | **Warning** | Harmful if swallowed | H302 |
| **Dermal** | Harmful in contact with skin | H312 |
| **Inhalation** | Harmful if inhaled | H332 |
| **5** | **Oral** | *No pictogram* | **Warning** | May be harmful if swallowed | H303 |
| **Dermal** | May be harmful in contact with skin | H313 |
| **Inhalation** | May be harmful if inhaled | H333 |

~~a~~ *~~For gases, uUnder the UN Recommendations on the Transport of Dangerous Goods, Model Regulations , replace the number “6” in the bottom corner of the pictogram by “2”.~~*

* *~~Toxic gases are classified in Division 2.3 and the number “2” must be displayed at the bottom corner of the UN Model Regulations~~* *~~pictogram.~~*
* *~~Toxic substances are classified in Division 6.1 and the number “6” must be displayed at the bottom corner of the UN Model Regulations~~**~~pictogram.~~*

*~~b~~a ~~The term ‘substance(s)’ has a slightly different meaning under the UN Model Regulations (see Chapter 2.0 section 2.0.1.1 ‘Definitions’) than under the GHS (see Chapter 1.2 ‘Definitions and Abbreviations’).~~ As defined in the UN Model Regulations (see Chapter 2.6, paragraph 2.6.1 (a)). The term “substances” in the Model Regulations covers substances and mixtures.*

A1.19 Skin corrosion/irritation (see Chapter 3.2 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement codes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictogram** | **Signal word** | **Hazard statement** |
| **Skin corrosion/irritation** | **1,**  **1Aa, 1Ba, 1Ca** | **~~Class~~ 8** |  | **Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\acide.tif** | **Danger** | Causes severe skin burns and eye damage | H314 |
| **2** | *Not applicable* |  | *Not applicable*  *~~Not required~~* | **Warning** | Causes skin irritation | H315 |
| **3~~a~~b** | *No pictogram* | **Warning** | Causes mild skin irritation | H316 |

*a**~~Hazard Ssub-categories may be applied where data are sufficient and where required by a competent authority~~ In accordance with the criteria, classification into sub-categories 1A, 1B and 1C may be required by some competent authorities. Others may only require classification in category 1 (see Section 3.2.2.2.1.2).*

*~~a~~b Available for those some competent authorities that want more than one skin irritation category (see Section 3.2.2.2.2.2)~~Applies to some authorities.~~*

A1.20 Serious eye damage/eye irritation (see Chapter 3.3 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement codes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictogram** | **Signal word** | **Hazard statement** |
| **Serious eye damage/eye irritation** | **1** | *Not applicable* |  | *Not applicable*  *~~Not required~~* | **Danger** | Causes serious eye damage | H318 |
| **2/2Aa** |  | **Warning** | Causes serious eye irritation | H319 |
| **2Ba** | *No pictogram* | **Warning** | Causes eye irritation | H320 |

*a**In accordance with the criteria, classification into sub-categories 2A and 2B may be required by some competent authorities. Others may only require classification in category 2 (see Section 3.3.2.1.2.1)~~Hazard sub-categories may be applied where data are sufficient and where required by a competent authority~~*

A1.21 Respiratory sensitizer (see Chapter 3.4 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement code~~s~~** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictogram** | **Signal word** | **Hazard statement** |
| **Respiratory sensitization** | **1,**  1Aa, 1Ba | *Not applicable* |  | *Not applicable*  *~~Not required~~* | **Danger** | May cause allergy or asthma symptoms or breathing difficulties if inhaled | H334 |

*a In accordance with the criteria, classification into sub-categories 1A and 1B may be required by some competent authorities. Others may only require classification in category 1 (see Section 3.4.2.1.1.1). ~~Hazard sSub-categories may be applied where data are sufficient and where required by a competent authority.~~*

A1.22 Skin sensitizer (see Chapter 3.4 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement code~~s~~** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictogram** | **Signal word** | **Hazard statement** |
| **Skin sensitization** | **1,**  1Aa, 1Ba | *Not applicable* |  | *Not applicable*  *~~Not required~~* | **Warning** | May cause an allergic skin reaction | H317 |

*a In accordance with the criteria, classification into sub-categories 1A and 1B may be required by some competent authorities. Others may only require classification in category 1 (see Section 3.4.2.2.1.1). ~~Hazard sSub-categories may be applied where data are sufficient and where required by a competent authority.~~*

A1.23 Germ cell mutagenicity (see Chapter 3.5 for classification criteria)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Classification** | | | **Labelling** | | | | **Hazard statement codes** |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictogram** | **Signal word** | **Hazard statement** |
| **Germ cell mutagenicity** | **1,**  **1A, 1B** | *Not applicable* |  | *Not applicable ~~Not required~~* | **Danger** | May cause genetic defects *(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)* | H340 |
| **2** | **Warning** | Suspected of causing genetic defects *(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)* | H341 |

A1.24 Carcinogenicity (see Chapter 3.6 for classification criteria)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Classification** | | | **Labelling** | | | | **Hazard statement codes** |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictogram** | **Signal word** | **Hazard statement** |
| **Carcinogenicity** | **1,**  **1A, 1B** | *Not applicable* |  | *Not applicable ~~Not required~~* | **Danger** | May cause cancer *(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)* | H350 |
| **2** | **Warning** | Suspected of causing cancer *(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)* | H351 |

A1.25 Reproductive toxicity ~~Toxic to reproduction~~ (see Chapter 3.7 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement codes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictogram** | **Signal word** | **Hazard statement** |
| **Reproductive toxicity** | **1,**  **1A, 1B** | *Not applicable* |  | *Not applicable*  *~~Not required~~* | **Danger** | May damage fertility or the unborn child *(state specific effect if known) (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)* | H360 |
| **2** | **Warning** | Suspected of damaging fertility or the unborn child *(state specific effect if known) (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)* | H361 |
| **Additional category for effects on or via lactation** | *No pictogram* | *No signal word* | May cause harm to breast-fed children | H362 |

A1.26 Specific target organ toxicity following single exposure (see Chapter 3.8 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement codes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictogram** | **Signal word** | **Hazard statement** |
| **Specific target organ toxicity – single exposure** | **1** | *Not applicable* |  | *Not applicable ~~Not required~~* | **Danger** | Causes damage to organs *(or state all organs affected, if known) (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)* | H370 |
| **2** | **Warning** | May cause damage to organs *(or state all organs affected, if known) (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)* | H371 |
| **3** |  | **Warning** | May cause respiratory irritation | H335 |
| *or* |  |
| May cause drowsiness or dizziness | H336 |

A1.27 Specific target organ toxicity following repeated exposure (see Chapter 3.9 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement codes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictogram** | **Signal word** | **Hazard statement** |
| **Specific target organ toxicity – repeated exposure** | **1** | *Not applicable* |  | *Not applicable ~~Not required~~* | **Danger** | Causes damage to organs *(state all organs affected, if known)* through prolonged or repeated exposure*(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)* | H372 |
| **2** | **Warning** | May cause damage to organs *(state all organs affected, if known)*through prolonged or repeated exposure *(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)* | H373 |

A1.28 Aspiration hazard (See chapter 3.10 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement codes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictogram** | **Signal word** | **Hazard statement** |
| **Aspiration hazard** | **1** | *Not applicable* |  | *Not applicable ~~Not required~~* | **Danger** | May be fatal if swallowed and enters airways | H304 |
| **2** | **Warning** | May be harmful if swallowed and enters airways | H305 |

A1.29 (a) Hazardous to the aquatic environment, short-term (acute) (see Chapter 4.1 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement codes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictograma** | **Signal word** | **Hazard statement** |
| **Hazardous to the aquatic environment, short-term (Acute)** | **Acute 1** | **~~Class~~ 9a** | Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\Aquatic-pollut-red.gif | C:\Users\DTraynor\AppData\Local\Microsoft\windows\INetCache\Content.Outlook\78KA5FY6\Class 9 (002).gif  and  **Description: Beskrivning: https://www.msb.se/Upload/Forebyggande/farligt_gods/Skyltar_etiketter/bmp/Aquatic-pollut-black.bmp** | **Warning** | Very toxic to aquatic life | H400 |
| **Acute 2** | *Not applicable* | *No pictogram* | *Not applicable ~~Not required~~* | *No signal word* | Toxic to aquatic life | H401 |
| **Acute 3** | Harmful to aquatic life | H402 |

*a ~~For Category 1, u~~Under the UN ~~Recommendations on the Transport of Dangerous Goods,~~ Model Regulations, for category Acute 1, environmentally hazardous substances are classified under Class 9 and shall bear both the Class 9 transport pictogram and the environmentally hazardous substance ~~UN Model Regulations pictogram~~transport mark (see Chapter 5.2, section 5.2.1.6 and Chapter 5.3, section 5.3.2.3, of the UN Model Regulations). ~~the pictogram is not required if the substance presents any other hazards covered by UN Model Regulations~~. ~~If no other hazard is presented, this pictogram is required as a mark in addition to the UN Model Regulations Class 9 label~~. However, if the environmentally hazardous substance presents any other hazards covered by UN Model Regulations, ~~then~~ the Class 9 ~~pictogram~~ transport pictogram ~~would not be applicable and would~~ shall be replaced by the transport pictogram(s) applicable to ~~of~~ the ~~other~~ hazard(s) ~~rep~~present~~ed~~.*

A1.29 (b) Hazardous to the aquatic environment, long-term (chronic) (see Chapter 4.1 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement codes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictograma** | **Signal word** | **Hazard statement** |
| **Hazardous to the aquatic environment, long-term (Chronic)** | **Chronic 1** | **~~Class~~ 9a** | Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\Aquatic-pollut-red.gif | C:\Users\DTraynor\AppData\Local\Microsoft\windows\INetCache\Content.Outlook\78KA5FY6\Class 9 (002).gifand  **Description: Beskrivning: https://www.msb.se/Upload/Forebyggande/farligt_gods/Skyltar_etiketter/bmp/Aquatic-pollut-black.bmp** | **Warning** | Very toxic to aquatic life with long lasting effects | H410 |
| **Chronic 2** | *No signal word* | Toxic to aquatic life with long lasting effects | H411 |
| **Chronic 3** | *Not applicable* | *No pictogram* | *Not applicable ~~Not required~~* | *No signal word* | Harmful to aquatic life with long lasting effects | H412 |
| **Chronic 4** | May cause long lasting harmful effects to aquatic life | H413 |

*a ~~For categories 1 and 2, u~~Under the UN ~~Recommendations on the Transport of Dangerous Goods,~~ Model Regulations, for categories Chronic 1 and 2, environmentally hazardous substances are classified under Class 9 and shall bear both the Class 9 transport pictogram and the environmentally hazardous substance ~~UN Model Regulations pictogram~~transport mark (see Chapter 5.2, section 5.2.1.6 and Chapter 5.3, section 5.3.2.3, of the UN Model Regulations). ~~the pictogram is not required if the substance presents any other hazards covered by UN Model Regulations~~. ~~If no other hazard is presented, this pictogram is required as a mark in addition to the UN Model Regulations Class 9 label~~. However, if the environmentally hazardous substance presents any other hazards covered by UN Model Regulations, ~~then~~ the Class 9 transport pictogram ~~would not be applicable and would~~ shall be replaced by the* *transport pictogram(s) applicable to ~~of~~ the ~~other~~ hazard(s) ~~re~~present~~ed~~.*

A1.30 Hazard to the ozone layer (see Chapter 4.2 for classification criteria)

| **Classification** | | | **Labelling** | | | | **Hazard statement code** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard class** | **GHS hazard category** | **UN Model Regulations class or division** | **GHS pictogram** | **UN Model Regulations pictogram** | **Signal word** | **Hazard statement** |
| **Hazardous to the ozone layer** | **1** | *Not applicable* | Description: Beskrivning: H:\Mina Dokument\KemI Internationellt\GHS\Pictograms\exclam.tif | *Not applicable ~~Not required~~* | **Warning** | Harms public health and the environment by destroying ozone in the upper atmosphere | H420 |

1. *see UN Recommendations on the Transport of Dangerous Goods, Model Regulations, ~~Volume II,~~Chapter 5.2, Section 5.2.2.2 ‘Provisions for labels’.* [↑](#footnote-ref-2)