

COMMITTEE OF EXPERTS ON THE TRANSPORT OF DANGEROUS GOODS AND ON THE GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS

Sub-Committee of Experts on the GHS

Eighth session

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Item 3 (a) of the provisional agenda

Comments on ST/SG/AC.10/C.4/2004/8/Rev.1

Transmitted by the Dangerous Goods Advisory Council (DGAC)

Discussion

The Dangerous Goods Advisory Council (DGAC) appreciates the opportunity to provide suggested revisions to the precautionary statements proposed in ST/SG/AC.10/C.4/2004/8/Rev.1 that apply to Division 1 substances and articles. We believe that while some of the proposed statements are effective, others don't adequately communicate the warning and in some cases, important warnings have been omitted. For all three Division 1 tables, we fully agree with and support the proposed precautionary statements under the headings "Storage" and "Disposal". However, we believe certain revisions to the warnings and response elements are essential to the safe handling of explosives.

Specific comments regarding the 1.1/1.2/1.3 Table:

In regard to warnings, we agree with and support the content and form of the 1st three warnings ("keep away", "do not subject", and "wear face protection"). However, we believe that the proposed warning regarding keeping an explosive substance wet gives the false impression that explosives must always be kept wet. It can be argued that the phrase "if drying out increases explosion hazard" describes a condition that will always be true and; therefore, explosives would always have to be kept wetted. Most explosives manufacturing and operating processes require that explosives be dry to function properly. We believe that the warning, as worded in Rev.1, could be misinterpreted in such a way as to prevent manufacturing and operating processes that require dry explosives. Therefore, it is necessary to clarify that it is desirable to keep explosives wetted except as needed for manufacturing and operating processes, and we have revised the proposed warning to better explain if and when explosives should be kept wetted. We also suggest the example read "nitrocellulose" rather than "nitrocelluloses."

The intent of the warning regarding grounding and bonding is unclear to us. We have proposed alternate wording that better communicates the need for grounding and bonding.

We disagree with the statements proposed under "Response". It is the long-standing recommended industry practice to not fight fires when 1.1, 1.2 or 1.3 explosives are involved in a fire. It is our

opinion that it is best to evacuate the area and let the fire burn itself out. We believe the warnings we have proposed better characterize the risk and appropriate response.

Specific comments regarding the 1.4 Table:

In regard to the 1.4 Table, we agree with and support the content and form of the 1st two warnings (“keep away” and “do not subject”); however, we have not included a “keep wetted” warning as Division 1.4 is comprised of articles such as ammunition for small arms, detonators, and shaped charges, and keeping them wet is not appropriate. Also, as discussed above, we are suggesting alternate wording that better communicates the need for grounding and bonding.

We do not agree with the statements proposed under “Response” for 1.4 explosives. With the exception of small arms ammunition and components thereof, it is a long-standing industry practice to not fight fires when 1.4 explosives are involved in the fire. Except as noted, it is our opinion that it is best to evacuate the area and let the fire burn itself out. We believe the warnings we suggest better address the risk of the hazard.

Specific comments regarding the 1.5 Table:

We agree with the warning under “Prevention” but also feel that other warnings are necessary. We have added warnings about face protection, keeping wet, and grounding/bonding. Our discussion on the subject of keeping wet and grounding/bonding under 1.1/1.2/1.3 Tables is applicable to the 1.5 Table as well.

We do not agree with the statements proposed under “Response”. It is the long-standing industry practice to not fight fires when 1.5 explosives are involved in a fire. We believe it is best to evacuate the area and let the fire burn itself out.

Proposal

Replace the Division 1 Tables proposed in ST/SG/AC.10/C.4/2004/8/Rev.1 with the Tables found in attachments 1 and 2.

ATTACHMENT 1

**EXPLOSIVES
(CHAPTER 2.1)**

**Symbol
Exploding Bomb**



Hazard Category
Division 1.1
Division 1.2
Division 1.3

Signal Word
Danger
Danger
Danger

Hazard Statement
Explosive; mass explosion hazard
Explosive; severe projection hazard
Explosive; fire, blast or projection hazard

Precautionary Statements			
Prevention	Response	Storage	Disposal
<p>Keep away from ignition sources such as heat/sparks/open flame. - No smoking.</p> <p>Do not subject to rough handling such as grinding/shock/friction.</p> <p>Wear face protection. as specified by the manufacturer or the competent authority.</p> <p>Keep wetted with appropriate material specified by the manufacturer or the competent authority. if drying out increases explosion hazard. Keep wetted. <u>If drying out increases explosion hazard, keep wetted with appropriate material specified by the manufacturer or the competent authority, except as needed for manufacturing or operating processes.</u> Example: nitrocelluloses</p> <p>Ground/Bond container and receiving equipment: if electrostatically sensitive material is for reloading. Ground/bond container and receiving equipment when working with electrostatically sensitive explosives.</p>	<p>In case of fire: Evacuate area and fight fire remotely due to the risk of explosion. DO NOT fight fire when fire reaches explosives.</p> <p><u>Explosion risk in case of fire.</u></p> <p><u>Evacuate area.</u></p>	<p>Store (in accordance with local/regional/national/international regulation).</p>	<p>Dispose of this material/its container (in accordance with local/regional/national/international regulation).</p>

EXPLOSIVES (CHAPTER 2.1)

Symbol <i>None</i>

Hazard Category
Division 1.4

Signal Word
Warning

Hazard Statement
Fire or projection hazard

Precautionary Statements			
Prevention	Response	Storage	Disposal
<p>Keep away from <i>ignition sources such as heat/sparks/open flame</i>. - No smoking.</p> <p>Do not subject to <i>rough handling such as grinding/shock/friction</i>.</p> <p><u>Ground/bond container and receiving equipment when working with electrostatically sensitive explosives.</u></p>	<p>In case of major fire and large quantities: Evacuate area and fight fire remotely due to the risk of explosion.</p> <p><u>EXPLOSIVES (except as noted below)</u></p> <p><u>DO NOT fight fire when fire reaches explosives.</u></p> <p><u>Explosion risk in case of fire.</u></p> <p><u>Evacuate area.</u></p> <p><u>1.4S AMMUNITION AND COMPONENTS THEREOF</u></p> <p><u>For packages containing 1.4S ammunition and components thereof, consider isolating the area for 15 meters (25 feet) in all directions. Fight fire with normal precautions from a reasonable distance.</u></p>	<p>Store</p> <p>... (in accordance with local/regional/national/international regulation).</p>	<p>Dispose of ...</p> <p>... (in accordance with local/regional/national/international regulation).</p>

EXPLOSIVES (CHAPTER 2.1)

Symbol
None

Hazard Category
Division 1.5

Signal Word
Warning

Hazard Statement
May explode in fire.

Precautionary Statements			
Prevention	Response	Storage	Disposal
<p>Keep away from ignition sources such as heat/sparks/open flame. - No smoking.</p> <p><u>Do not subject to rough handling such as grinding/shock/friction.</u></p> <p><u>Wear face protection.</u> as specified by the manufacturer or the competent authority.</p> <p><u>Keep wetted.</u> If drying out increases explosion hazard, keep wetted with appropriate material specified by the manufacturer or the competent authority, except as needed for manufacturing or operating processes.</p> <p><u>Ground/bond container and receiving equipment</u> when working with electrostatically sensitive explosives.</p>	<p>In case of major fire and large quantities: Evacuate area and fight fire remotely due to the risk of explosion.</p> <p><u>DO NOT fight fire when fire reaches explosives.</u></p> <p><u>Explosion risk in case of fire.</u></p> <p><u>Evacuate area.</u></p>	<p>Store (in accordance with local/regional/national/international regulation).</p>	<p>Dispose of this material/its container (in accordance with local/regional/national/international regulation).</p>

ATTACHMENT 2

**EXPLOSIVES
(CHAPTER 2.1)**

**Symbol
Exploding Bomb**



Hazard Category

Division 1.1
Division 1.2
Division 1.3

Signal Word

Danger
Danger
Danger

Hazard Statement

Explosive; mass explosion hazard
Explosive; severe projection hazard
Explosive; fire, blast or projection hazard

Precautionary Statements			
Prevention	Response	Storage	Disposal
<p>Keep away from ignition sources such as heat/sparks/open flame. - No smoking.</p> <p>Do not subject to rough handling such as grinding/shock/friction.</p> <p>Wear face protection. as specified by the manufacturer or the competent authority.</p> <p>Keep wetted. If drying out increases explosion hazard, keep wetted with appropriate material specified by the manufacturer or the competent authority, except as needed for manufacturing or operating processes. <i>Example: nitrocellulose</i></p> <p>Ground/bond container and receiving equipment when working with electrostatically sensitive explosives.</p>	<p>DO NOT fight fire when fire reaches explosives.</p> <p>Explosion risk in case of fire.</p> <p>Evacuate area.</p>	<p>Store (in accordance with local/regional/national/international regulation).</p>	<p>Dispose of this material/its container (in accordance with local/regional/national/international regulation).</p>

EXPLOSIVES (CHAPTER 2.1)

Symbol <i>None</i>

Hazard Category
Division 1.4

Signal Word
Warning

Hazard Statement
Fire or projection hazard

Precautionary Statements			
Prevention	Response	Storage	Disposal
<p>Keep away from ignition sources such as heat/sparks/open flame. - No smoking.</p> <p>Do not subject to rough handling such as grinding/shock/friction.</p> <p>Ground/bond container and receiving equipment when working with electrostatically sensitive explosives.</p>	<p>EXPLOSIVES (except as noted below)</p> <p>DO NOT fight fire when fire reaches explosives.</p> <p>Explosion risk in case of fire.</p> <p>Evacuate area.</p> <p><u>1.4S AMMUNITION AND COMPONENTS THEREOF</u></p> <p>For packages containing 1.4S ammunition and components thereof, consider isolating the area for 15 meters (25 feet) in all directions. Fight fire with normal precautions from a reasonable distance.</p>	<p>Store (in accordance with local/regional/national/international regulation).</p>	<p>Dispose of (in accordance with local/regional/national/international regulation).</p>

EXPLOSIVES (CHAPTER 2.1)

Symbol
None

Hazard Category
Division 1.5

Signal Word
Warning

Hazard Statement
May explode in fire.

Precautionary Statements			
Prevention	Response	Storage	Disposal
<p>Keep away from ignition sources such as heat/sparks/open flame. - No smoking.</p> <p>Do not subject to rough handling such as grinding/shock/friction.</p> <p>Wear face protection. as specified by the manufacturer or the competent authority.</p> <p>Keep wetted. If drying out increases explosion hazard, keep wetted with appropriate material specified by the manufacturer or the competent authority, except as needed for manufacturing or operating processes.</p> <p>Ground/bond container and receiving equipment when working with electrostatically sensitive explosives.</p>	<p>DO NOT fight fire when fire reaches explosives.</p> <p>Explosion risk in case of fire.</p> <p>Evacuate area.</p>	<p>Store (in accordance with local/regional/national/international regulation).</p>	<p>Dispose of this material/its container (in accordance with local/regional/national/international regulation).</p>