Comments on INF.3/Add.1, figures 10.1 and 10.4

Transmitted by Australian Explosives Industry and Safety Group Incorporated (AEISG)

Alternative figure 10.1

The term “unstable” as applied to explosives in the context of GHS generates confusion and can be avoided in Table 10.1 as shown below.

Alternative figure 10.4

AEISG believes that Figure 10.4 needs a rethink given it is now relevant to GHS. It is the opinion of AEISG that boxes 7 and 8 should never have been different. An ANE which fails either of these tests, 8(b) or (c), is a candidate for Division 1.5:

• If it passes TS5, it is Division 1.5.
• If it fails TS5, it is Division 1.1.

The issue which complicates things is an ANE product which fails Test 8(a) – refer Box 2. It is then EITHER an unstable Explosive OR an unstable Oxidising substance, depending on the results of TS8(b) and (c).

The diagram for Figure 10.4 then becomes overly complex.

AEISG proposes an alternative Figure 10.4 with a “Results table” included which we believe is far simpler to interpret.
Figure 10.1: OVERALL SCHEME OF THE PROCEDURE FOR CLASSIFYING A SUBSTANCE OR ARTICLE IN THE CLASS OF EXPLOSIVES

PRODUCT FOR CLASSIFICATION

ACCEPTANCE PROCEDURE

EXPLOSIVE
Not suitable for transport

ACCEPT
Include in the class of explosives

EXPLOSIVE
Suitable for transport

HAZARD DIVISION ASSIGNMENT

COMPATIBILITY GROUP ASSIGNMENT

DIVISION
1.1, 1.2, 1.3, 1.4, 1.5 or 1.6

COMPATIBILITY GROUP
A, B, C, D, E, F, G, H, J, K, L, N or S

CLASSIFICATION

REJECT
Not an explosive

Not suitable for transport
**Figure 10.4: PROCEDURE FOR AMMONIUM NITRATE EMULSION, SUSPENSION OR GEL, INTERMEDIATE FOR BLASTING EXPLOSIVES**

1. **TEST SERIES 8 (from figure 10.2)**

2. **TEST 8 (a)**
   - Thermal stability test
   - Is the substance thermally stable?

3. **Yes**

4. **TEST 8 (b)**
   - ANE Large scale gap test
   - Is the substance insensitive to shock?

5. **Yes**
   - ANE substance accepted as an oxidizing liquid or solid

6. **No**
   - Substance to be classified in accordance with the table below

---

<table>
<thead>
<tr>
<th>Test 8 (a)</th>
<th>Test 8 (b)</th>
<th>Test (c)</th>
<th>CLASSIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pass (-)</td>
<td>Pass (-)</td>
<td>Fail (+)</td>
<td>Classify as an explosive</td>
</tr>
<tr>
<td>Pass (-)</td>
<td>Fail (+)</td>
<td>Pass (-)</td>
<td>Proceed to Test Series 5 to determine hazard division</td>
</tr>
<tr>
<td>Pass (-)</td>
<td>Fail (+)</td>
<td>Fail (+)</td>
<td>Classify as an unstable explosive (not suitable for transport)</td>
</tr>
<tr>
<td>Fail (+)</td>
<td>Pass (-)</td>
<td>Fail (+)</td>
<td>Classify as an unstable explosive (not suitable for transport)</td>
</tr>
<tr>
<td>Fail (+)</td>
<td>Fail (+)</td>
<td>Pass (-)</td>
<td>Classify as an oxidizing solid or liquid, not suitable for transport</td>
</tr>
<tr>
<td>Fail (+)</td>
<td>Fail (+)</td>
<td>Fail (+)</td>
<td></td>
</tr>
<tr>
<td>Fail (+)</td>
<td>Pass (-)</td>
<td>Pass (-)</td>
<td></td>
</tr>
</tbody>
</table>

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**AEISG alternative figure 10.4**

**Figure 10.4:** PROCEDURE FOR AMMONIUM NITRATE EMULSION, SUSPENSION OR GEL, INTERMEDIATE FOR BLASTING EXPLOSIVES