



SUBCOMITÉ DE TRANSPORTE  
DE MERCANCÍAS PELIGROSAS,  
CARGAS SÓLIDAS Y CONTENEDORES  
15º periodo de sesiones  
Punto 3 del orden del día

DSC 15/3/10  
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**ENMIENDAS AL CÓDIGO IMDG Y A SUS SUPLEMENTOS, INCLUIDA LA  
ARMONIZACIÓN DEL CÓDIGO IMDG CON LAS RECOMENDACIONES  
RELATIVAS AL TRANSPORTE DE MERCANCÍAS PELIGROSAS,  
DE LAS NACIONES UNIDAS**

**Clasificación del nitrato potásico, el nitrato sódico y sus mezclas**

**Nota presentada por los Países Bajos**

**RESUMEN**

<i>Sinopsis:</i>	En el presente documento se propone suprimir la disposición especial 964 aplicable a los nitratos correspondientes a los N <sup>os</sup> ONU 1486, 1498 y 1499 del Código IMDG.
<i>Principios estratégicos:</i>	5.2
<i>Medidas de alto nivel:</i>	5.2.3
<i>Resultados previstos:</i>	5.2.3.5
<i>Medidas que han de adoptarse:</i>	Véase el párrafo 6.
<i>Documentos conexos:</i>	DSC 14/3/11, DSC 14/3/12, DSC 14/3/13 y DSC 14/22 (párrafos 3.61 y 3.62).

**Introducción**

1 Como consecuencia de las propuestas formuladas por Chile (DSC 14/3/11, DSC 14/3/12 y DSC 14/3/13), el Subcomité decidió en su 14º periodo de sesiones incluir la nueva disposición especial 964 en las entradas correspondientes a los nitratos transportados con los N<sup>os</sup> ONU 1486, 1498 y 1499 de la Enmienda 35 del Código IMDG. Las mencionadas propuestas hacían referencia a ensayos realizados por el laboratorio TNO en los Países Bajos.

2 Atendiendo a la petición del Subcomité, la Secretaría presentó los resultados de las deliberaciones del DSC 14 al Subcomité de Expertos de las Naciones Unidas en Transporte de Mercaderías Peligrosas (véase el documento UN/SCETDG/36/INF.30). En el 37º periodo de sesiones de dicho Subcomité (junio de 2010), esta cuestión se debatirá minuciosamente. A fin de facilitar dichos debates, los Países Bajos presentaron el documento UN/SCETDG/37/INF.46, el cual figura en el anexo de este documento (solamente en inglés).

3 Según se explica en el documento UN/SCETDG/37/INF.46, el nitrato potásico, el nitrato sódico y sus mezclas se incluyeron en las Recomendaciones de las Naciones Unidas relativas al transporte de mercancías peligrosas (y en el Código IMDG) antes de que se desarrollaran pruebas y criterios para la clasificación de sustancias comburentes. Además, se reconoce que dichos nitratos (incluidos sus gránulos o bolitas) son sustancias que presentan riesgo de incendio, por lo que es preciso adoptar precauciones especiales durante su transporte.

4 Este documento se presenta antes de que concluyan las deliberaciones del 37º periodo de sesiones del Subcomité de Expertos de las Naciones Unidas en Transporte de Mercaderías Peligrosas. No obstante, los Países Bajos opinan que la disposición especial 964 no se debería haber asignado a los nitratos transportados bajo los N<sup>os</sup> ONU 1486, 1498 y 1499. Si bien en el DSC 14 no se propuso enmendar el Código IMSBC, los Países Bajos opinan también que estos nitratos deberían expedirse como carga peligrosa cuando se transportan a granel con arreglo a las disposiciones del Código IMSBC.

### **Propuesta**

5 Los Países Bajos proponen suprimir la disposición especial 964 del Código IMDG (Enmienda 35). En caso de que el Subcomité decida suprimir dicha disposición especial, también se invita al Subcomité a que adopte una decisión con respecto a la clasificación de estos nitratos en la Enmienda 35.

### **Medidas cuya adopción se pide al Subcomité**

6 Se invita al Subcomité a que examine las propuestas formuladas en el párrafo 5 y a que adopte las medidas que estime oportunas.

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**ANEXO**

**UN/SCETDG/37/INF.46**

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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**

**Sub-Committee of Experts on the Transport of Dangerous Goods**

**10 June 2010**

**Thirty-seventh session**

Geneva, 21–30 June 2010

Item 8 of the provisional agenda

**Global harmonization of transport of dangerous goods  
regulations with the Model Regulations**

**ANNEX**

**Classification of potassium nitrate, sodium nitrate and  
mixtures thereof**

**Transmitted by the expert from the Netherlands**

**Introduction**

1. At its 36th session the Sub-Committee discussed INF.30 of IMO dealing with, amongst other subjects, UN Nos. 1486, 1498 and 1499 (paragraph 3.4 of INF.30). The report of the 36th session (ST/SG/AC.10/C.3/72) reflects the discussions and invited experts to provide written documents to justify the views expressed in the discussions.
2. Following proposals by Chile (DCS 14/3/11, DSC 14/3/12 and DCS 14/3/13) IMO has decided to introduce a special provision 964 exempting certain forms of potassium nitrate, sodium nitrate and mixtures thereof provided these substances did not meet the criteria.
3. The Chilean DCS proposals make reference to tests performed by TNO in the Netherlands on several samples of potassium nitrate, sodium nitrate and mixtures thereof.
4. TNO was assigned to assess the oxidising properties of the mentioned products. This assessment was carried out in accordance with the applicable test method, i.e. test O.1 (section 34.4.1.4 of the Manual), i.e. the test for oxidizing substances, so-called conical pile test. The three separate reports (TNO-DV 2009 C292, TNO-DV 2009 C293 and TNO-DV 2009 C294) concluded that none of the tested samples possessed oxidizing properties in the sense of the criteria laid down in United Nations Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria, fourth revised edition, section 34.4.1.4 and that these conclusions applied to the grade (composition and particle size) as tested.

5. The Netherlands does not question the tests done and results obtained by TNO, but wishes to express its opinion that for classification purposes, apart from test results also other considerations apply.

## **Further considerations**

### **Intimacy of mixing**

6. The fact that the results of test O.1 (section 34.4.1.4 of the Manual) indicate no oxidizing properties does not automatically mean that the tested substance is not hazardous. Even in prilled or granulated form there are likely situations where intimate mixtures of the tested substance with fuels can occur. For instance when accidentally liquid fuel is spilled over the product. This situation is not unlikely to occur in an incident during transport and storage conditions and would lead to a much more intimate mixture than is physically possible in Test O.1.

7. The fuel in Test O.1 is fibrous cellulose with a fibre length between 50 and 250  $\mu\text{m}$  and a mean diameter of 25  $\mu\text{m}$ . The test substances had fractions between 80.3 and 98.9% with a particle size between 0.85 and 3.4 mm. Mixing two substances with such different particle sizes leads to a lesser intimate contact compared to mixing particles of roughly the same size.

8. Above example illustrates that segregation of potassium nitrate, sodium nitrate and mixtures thereof with fuel is highly recommended, regardless of the particle size of the products. Segregation rules can not be laid upon non-regulated substances.

### **Known experience**

9. Section 2.5.2.1.1 of the Model Regulations states: "In the event of divergence between test results and known experience, judgement based on known experience shall take precedence over test results."

10. The note under the same section states that "Where substances of this Division are listed in the Dangerous Goods List in Chapter 3.2, reclassification of those substances in accordance with the criteria shall be undertaken only when this is necessary for safety."

11. Although the wording might not be unambiguous, it is our opinion that divergence between test results and known experience in principle should not lead to declassification of a substance that is listed in the Dangerous Goods List in Chapter 3.2. The fact that no accident has ever happened with a certain substance, does not prove that this substance is non-hazardous.

12. Potassium nitrate, sodium nitrate and mixtures thereof were introduced in the Model Regulations on the basis of experience, before the development of tests and criteria for classification of oxidizing substances. Both potassium and sodium nitrates are recognized as fire enhancing substances requiring special precautions during transport and storage. In this case, known experience prevents declassification of these substances.

13. Although the situation is not fully comparable, an analogy with ammonium nitrate can be made here. When tested in test O.1, the result is almost always that prilled ammonium nitrate does not possess oxidizing properties in the sense of the criteria given in the Manual. Other considerations prevent declassification as a non-dangerous good.

14. The same situation occurred with ammonium nitrate emulsions (ANE) before test series 8 was introduced. When tested with several test series, amongst which Test O.1, all results were negative, but the ANEs were still considered as dangerous goods.

### **Security**

15. Both potassium nitrate and sodium nitrate are considered precursors for home made explosives. Restrictions related to security can not be imposed on non-regulated substances.

### **Proposal**

16. The Netherlands proposes not to assign a special provision comparable to SP964 to UN numbers 1486, 1498 and 1499.

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