

**Economic Commission for Europe****Inland Transport Committee****25 January 2012****Working Party on the Transport of Dangerous Goods****Joint Meeting of Experts on the Regulations annexed to the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN) (ADN Safety Committee)****Twentieth session**

Geneva, 23–27 January 2012

Item 4 (b) of the provisional agenda

**Proposals for amendments to the Regulations annexed to ADN: other proposals**

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**Amendments to references to International regulations****Adoption of ECE/TRANS/WP.15/AC.2/2012/2 (France)****Consequential changes****Note by the secretariat**

The adoption of the proposal by France to replace the reference to the BC Code by a reference to the IMSBC Code implies a consequential change to 7.1.6.11, special provision ST 02:

The IMSBC Code does no longer impose a limitation on the rate of decomposition for allowing carriage in bulk, therefore ST02 could be deleted. In any case, Appendix D.4 of the BC Code reflects the trough test which can now be found in subsection 38.2 of the Manual of Tests and Criteria.

## AMMONIUM NITRATE BASED FERTILIZER UN 2071

### DESCRIPTION

Usually granules. Wholly or partly soluble in water. Hygroscopic.

Ammonium nitrate-based fertilizers classified as UN 2071 are uniform ammonium nitrate based fertilizer mixtures of the nitrogen, phosphate or potash, containing not more than 70% ammonium nitrate and not more than 0.4% total combustible organic material calculated as carbon or with not more than 45% ammonium nitrate and unrestricted combustible material. Fertilizers within these composition limits are not subject to the provisions of this schedule when shown by a trough test (see UN Manual of Tests and Criteria, part III, subsection 38.2) that they are not liable to self-sustaining decomposition.

### Notes:

1. All nitrate ions for which there is present in the mixture a molecular equivalent of ammonium ions should be calculated as ammonium nitrate.
2. The transport of ammonium nitrate materials which are liable to self-heating sufficient to initiate a decomposition is prohibited.
3. The NPK proportions for a fertilizer should not be used as a guide to its ability to undergo self-sustaining decomposition as this depends on the chemical species present (refer to UN Manual of Tests and Criteria, part III, subsection 38.2).

### CHARACTERISTICS

ANGLE OF REPOSE	BULK DENSITY (kg/m <sup>3</sup> )	STOWAGE FACTOR (m <sup>3</sup> /t)
27° to 42°	900 to 1200	0.83 to 1.11
SIZE	CLASS	GROUP
1 to 5 mm	9	B

### HAZARD

These mixtures may be subject to self-sustaining decomposition if heated. The temperature in such a reaction can reach 500°C. Decomposition, once initiated, may spread throughout the remainder, producing gases which are toxic. None of these mixtures is subject to the explosion hazard.

Fertilizer dust might be irritating to skin and mucous membranes.

This cargo is hygroscopic and will cake if wet.

### STOWAGE & SEGREGATION

“Separated by a complete compartment or hold from” combustible materials (particularly liquid), bromates, chlorates, chlorites, hypochlorites, nitrites, perchlorates, permanganates, powdered metals and vegetable fibres (e.g., cotton, jute, sisal, etc.).

“Separated from” all other goods.

“Separated from” sources of heat or ignition (see also Loading).

Not to be stowed immediately adjacent to any tank or double bottom containing fuel oil heated to more than 50°C.

If the bulkhead between the cargo space and the engine-room is not insulated to class A-60 standard, “away from” the bulkhead.

BC Code  
1996

INF-41

## Appendix B

### AMMONIUM NITRATE FERTILIZERS\* TYPE B

Uniform non-segregating mixtures of nitrogen/phosphate or nitrogen/potash types or complete fertilizers of nitrogen/phosphate/potash type, containing not more than 70% of ammonium nitrate and not more than 0.4% of total added combustible material or containing not more than 45% of ammonium nitrate with unrestricted combustible material.

#### Notes:

1. All nitrate ions for which there is present in the mixture a molecular equivalent of ammonium ions should be calculated as ammonium nitrate.
2. NON-HAZARDOUS: Mixtures of the same composition and within the limits mentioned above which, as a result of testing in the trough test (see appendix D.4), are found to be free from the risk of self-sustaining decomposition, provided they do not contain an excess of nitrate calculated as potassium nitrate (above the ammonium nitrate content calculated as in note (1) above) greater than 10% by mass of the mixture. Mixtures in which excess nitrate is present in greater proportion than this should be referred to the competent authority (see appendix C - ammonium nitrate fertilizers under (c)).

UN no.	IMO class	MFAG table no.	Approximate angle of repose	Approximate stowage factor (m <sup>3</sup> /t)	EmS no.
2071	9	610	27° to 42°	1.00	B4

#### Properties

Usually granules. Wholly or partly soluble in water. These mixtures may be subject to self-sustaining decomposition if heated; the temperature in such a reaction can reach 500°C. Decomposition, once initiated, may spread throughout the remainder, producing gases which are toxic.

#### Observations

These fertilizers are accepted for bulk transport if, as a result of testing in the trough test, their liability to self-sustaining decomposition shows a decomposition rate not greater than 0.25 m/h. Ammonium nitrate products which are liable to self-heating sufficient to initiate a decomposition are prohibited.

\* For comprehensive information on transport of any material listed, refer to sections 1-10 of this Code.