



Dangerous Goods Advisory Notice

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Advisory Notice Concerning Liquids at a Temperature at or Above Their Flash Point

Arising from consideration of products involved in the Wabamun derailment, which occurred on August 3, 2005, it appears that requirements regarding classification of certain class 3 flammable liquids are not followed.

Seemingly, some persons offering, handling or transporting liquids at or above their flash point are not aware of Paragraph 2.18(1)(b) of the *Transportation of Dangerous Goods Regulations* made under the *Transportation of Dangerous Goods Act, 1992*.

Specifications for Bunker C fuel oil (heavy fuel oil):

With respect to Bunker C fuel oil, which is also known as Type 6 heating fuel oil or Bunker C fuel in Canada, or No. 6 fuel oil in the United States, when this product is heated at or above its flash point an explosive atmosphere can be created.

The flash point for this substance can differ from one formulation to the next. If the vapours mix in the correct proportion to air, an ignition source as small as a stray welding spark can cause an explosion.

To that effect, the *Transportation of Dangerous Goods Regulations* sets out requirements in order to ensure safety during handling, offering for transport and transport of flammable liquids that have a temperature that is at or above their flash point.

Regulations:

1.4 Definitions :

The *Transportation of Dangerous Goods Regulations* define flash point as:

flash point means the lowest temperature at which the application of an ignition source causes the vapours of a liquid to ignite near the surface of the liquid or within a test vessel..

2.18 General

(1) Substances that are liquids or liquids containing solids in solution or suspension are included in Class 3, Flammable Liquids, if they

- a) have a flash point less than or equal to 60 °C using the closed-cup test method referred to in Chapter 2.3 of the UN Recommendations; or

A flash point of 65.6 °C, using the open-cup test method referred to in Chapter 2.3 of the UN Recommendations, is equivalent to 60 °C using the closed-cup test.

- b) are intended or expected to be at a temperature that is greater than or equal to their flash point at any time while the substances are in transport.

The UN number and shipping name for the dangerous goods referred to in paragraph (b) are UN3256, ELEVATED TEMPERATURE LIQUID, FLAMMABLE, N.O.S.

1.34 Class 3, Flammable Liquids: Flash Point Between 60°C and 93°C

Substances that have a flash point greater than 60°C but less than or equal to 93°C may be transported on a road vehicle, a railway vehicle or a ship on a domestic voyage as Class 3, Flammable Liquids, and Packing Group III. In this case, the requirements of these Regulations that relate to flammable liquids that have a flash point less than or equal to 60°C must be complied with.

Recommendations :

Considering the specifications of this product, Transport Canada recommends that any person intending to handle, offer for transport or transport Bunker C fuel oil, Type 6 heating fuel oil or No. 6 fuel oil verify that the substance is not loaded, or subsequently heated, to a temperature at or above its flash point.

Otherwise paragraph 2.18(1)(b) applies and the substance must be handled, offered for transport and transported as dangerous goods described as: UN3256, ELEVATED TEMPERATURE LIQUID, FLAMMABLE, N.O.S.

Further, Transport Canada recommends that in light of Section 1.34 of the *Transportation of Dangerous Goods Regulations* (see next paragraph) that Bunker C fuel oil, Type 6 heating fuel oil or No. 6 fuel oil be transported in all cases as dangerous goods having a flash point less than or equal to 93°C.

In addition, recognizing that it is possible for an explosive atmosphere to occur in a tank containing Bunker C fuel oil without the fuel oil having been heated above its flash point, Transport Canada would accept the shipping numbers and names listed below in the case in which the substance was not, or is not expected to be, heated at or above its flash point.

- UN3256, ELEVATED TEMPERATURE LIQUID, FLAMMABLE, N.O.S.;
- UN1993, FLAMMABLE LIQUID, N.O.S