



# BULLETIN



RDIMS #6046904

Updated January 2011

## Ethanol and gasoline mixture – classification and emergency response

Transport Canada advises:

- **shippers and carriers** of dangerous goods of the shipping names and UN numbers that they should use in Canada for fuel mixtures of ethanol (or ethyl alcohol) and gasoline; and
- **emergency responders** on how to treat spills and fires involving these mixtures.

### Classification

The chart below will help you classify ethanol and gasoline mixtures properly for transport.

Ethanol Concentration	Shipping Name	UN Number
10% or less	Gasoline	UN1203
More than 10% and less than 100%	Ethanol and gasoline mixture	UN3475
100%	Ethanol or Ethyl alcohol	UN1170

Section 2.3 of the Transportation of Dangerous Goods Regulations states that:

“If a name of dangerous goods is shown as a shipping name in column 2 of Schedule 1, that name must be used as the shipping name”. As well, you **must not** classify ethanol/gasoline mixtures as:

- ALCOHOLS, N.O.S. (UN1987);
- FLAMMABLE LIQUIDS, N.O.S. (UN1993); or
- DENATURED ALCOHOL (NA1987).

Mixtures with more than 10% ethanol form a polar/water-miscible flammable liquid that degrades the Aqueous Film Forming Foam (AFFF or regular foam) are often used to treat gasoline fires. It is very important to properly identify and classify these mixtures so emergency responders will know how to treat them during a spill or fire.

### Emergency Response

You must treat fires involving mixtures with more than 10% ethanol differently than gasoline fires:

- The Emergency Response Guidebook 2008 (ERG) refers to Guide 127 (Flammable Liquids; Polar and Water-Miscible).
- The International Association of Fire Chiefs (IAFC) recommends applying a fog stream of Alcohol-Resistant, Aqueous Film-Forming Foam (AR-AFFF) on spills or fires of mixtures with more than 10% ethanol.