



TRANSPORTATION OF SOILS CONTAMINATED WITH FLAMMABLE LIQUIDS

This document does not change, create, amend or suggest deviations to the [Transportation of Dangerous Goods Regulations](#) (TDG Regulations).

The purpose of this bulletin is to assist shippers and carriers transporting soils contaminated with flammable liquids such as crude oil, gasoline and diesel to comply with the TDG Regulations.

Classification

Soils contaminated with flammable liquids are generally classified as Class 4.1, Flammable Solids, as it presents a flammability hazard. The testing requirements for Class 4.1 have been made optional for UN3175, SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S., to address the challenges associated with on site testing, and the flammability hazard is based solely on the presence of a low quantity of flammable liquid. This is found in [Special Provision 56](#) which is assigned to UN3175.

If it is not possible to follow Special Provision 56, then proper testing to determine the classification of the material must be completed as found in [Part 2](#) of the TDG Regulations. [Sections 2.20 through 2.22](#) of the TDG Regulations describe the requirements for a substance to be classified as Class 4.1, Flammable Solids.

It should be noted that soil contaminated with a flammable liquid may no longer be considered flammable depending on the effects of weathering, the quantity and the flammable liquid involved.

Special Provision 16

Special Provision 16 states that the technical name of at least one of the most dangerous substances that predominantly contributes to the hazard or hazards posed by the dangerous goods must be shown, in parentheses, on the shipping document following the shipping name as per [clause 3.5\(1\)\(c\)\(ii\)\(A\)](#) of the TDG Regulations.

Special Provision 56

Special Provision 56 states that mixtures of solids that are not dangerous goods and liquids included in Class 3, Flammable Liquids, may be handled, offered for transport or transported under UN3175, SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S., without applying the tests and criteria for including substances in Class 4.1, Flammable Solids, if both of the following conditions are met:

- there is no visible liquid at the time the mixture is loaded into a container or at the time the container is closed
- each container is leak-proof

The TDG Regulations, except for [Part 1](#) and Part 2, do not apply to a sealed packet or article containing less than 10 mL of dangerous goods included in Class 3, Flammable Liquids, packing group II or III, if there is no free liquid in the packet or article.

Determining the classification of fuel contaminated soils

Often the site of a fuel spill will have soils in various states. The area could be a naturally formed gravel, a sandy loam, clay, or a bog/swamp. Sometimes due to the nature of the area, there could be pooling of the spilled flammable liquid, or spilling in a waterway. The classification of a soil contaminated with flammable liquid can be determined by following the example below.

In this example, gasoline is the contaminant in the soil. If the flammable mixture is more:

- liquid (it can be pumped):
UN1203, GASOLINE, CLASS 3, PACKING GROUP II
- solid (it can be shoveled):
UN3175, SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S., CLASS 4.1, PACKING GROUP II

In case of uncertainty, the person classifying the substance should follow the classification process found in Part 2 of the TDG Regulations.

When the contamination product in the soil is known, the technical name of at least one of the most dangerous substances that predominantly contributes to the danger or dangers posed by the dangerous goods must be shown, in parentheses, on the shipping document following the shipping name.

UN number	Shipping name	Class	Packing group
UN3175	SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. (PETROLEUM CRUDE OIL)	4.1	II
UN3175	SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. (GASOLINE)	4.1	II

Documentation

A dangerous goods shipping document must accompany each consignment of dangerous goods, unless exempted by the TDG Regulations. As per [Section 3.1](#) of the TDG Regulations, the consignor is responsible for supplying the shipping document to the carrier. More information can be found in the [Shipping document](#).

For details on alternate and additional documentation requirements, consult [Part 3](#) of the TDG Regulations.

A hazardous waste manifest or recycle docket is used when shipping dangerous goods intended for treatment, disposal or recycling. These serialized pre-printed forms are available free of charge from the appropriate provincial or territorial authority or from the [Waste Reduction and Management Division](#) at Environment and Climate Change Canada (ECCC). These documents may be used to fulfill the TDG Regulations if they meet the requirements of Part 3.

Dangerous goods marks

Dangerous goods marks are placards, labels and markings, which identify dangerous goods shipments ([Part 4](#) of the TDG Regulations), and show the nature of the danger. Dangerous goods marks are provided by the shipper and must be maintained in good condition during transport by the carrier.

More information can be found in the document [Dangerous goods marks](#).

Means of containment

The [Transportation of Dangerous Goods Act](#) (TDG Act), Regulations and safety standards require dangerous goods to be transported in a compliant means of containment, where applicable. For UN3175, the transportation is authorized in non-standardized highway tanks when in accordance with section 4 of the CSA B621 Standard. Compliance marks indicate compliance with the prescribed safety standards.

More information can be found in the document [Dangerous goods means of containment](#).

Training

Anyone who handles, offers for transport or transports dangerous goods must be adequately trained and have a valid transportation of dangerous goods training certificate, or must be in the presence of and under the direct supervision of a trained person having such a certificate.

More information can be found in the document [TDG Training](#).

Reporting requirements

The person in possession of dangerous goods at the time of a release or anticipated release must make a verbal emergency report to the local authorities as soon as possible. The person may be required to make an additional emergency report to Transport Canada through CANUTEC when specific situations occur, such as the closure of a highway.

For detailed information on reporting requirements, please consult the [Guide for reporting dangerous goods incidents](#) and [Part 8](#) of the TDG Regulations.

Compliance with the TDG Act and Regulations

Failure to comply with the [TDG Act](#) and TDG Regulations may lead to fines and/or imprisonment. For more information, you can visit the [TDG website](#) and the [Department of Justice website](#).

Contact us

For any regulatory questions, please [contact us](#).