

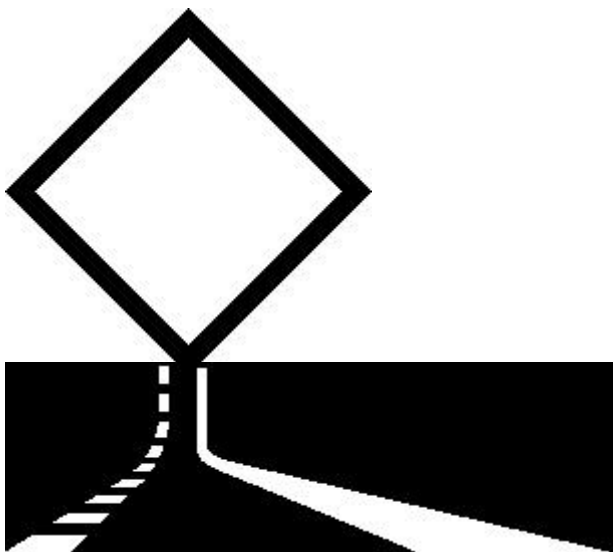
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**A Technical Publication
from the Co-ordination
and Information Centre**

Transportation of Asbestos as a Waste

November 2009

**Dangerous Goods
And Rail Safety**



**Government
of Alberta** ■
Transportation

This material is meant as a guide to certain parts of the Transportation of Dangerous Goods Regulations and is not meant to be a substitute for them. It is the responsibility of handlers, offerers and transporters of dangerous goods to consult the Regulations for the exact requirements. The Co-ordination and Information Centre of Alberta Transportation can provide accurate information regarding the Regulations 24 hours a day.

Co-ordination and Information Centre

**Alberta Transportation
Dangerous Goods and Rail Safety Branch
Main Floor, Twin Atria Building
4999 – 98 Avenue
Edmonton, Alberta, T6B 2X3**

**Tel. Edmonton: (780) 422 – 9600
Tel. Province-wide: 1 (800) 272 – 9600
Fax: (780) 427 – 1044**

These telephone lines are recorded to assist in responding to the emergency (natural/manmade) and/or inquiry regarding dangerous goods and to ensure that the information is accurate. Direct any questions regarding the recording to the Compliance Officer responding to your call or contact the Manager of the CIC at 780-427-8660. *Legal Authority: Dangerous Goods Transportation and Handling Act, Section 13(1).*

INTRODUCTION

Asbestos is a group of impure magnesium silicate minerals which occur in a fibrous form. Asbestos mineral colours vary over a broad range: white, brown, grey and green. All asbestos, when not fixed in a natural or artificial binder material or included in a manufactured product, is regulated and falls into three categories in the Transportation of Dangerous Goods (TDG) Regulations:

Representative Examples	Shipping Name	UN Number	Class / Subclass	Packing Group
Crocidolite	BLUE ASBESTOS	UN2212	9	II
Amosite, myosorite	BROWN ASBESTOS	UN2212	9	II
Chrysotile, actinolite, anthophyllite, tremolite	ASBESTOS, WHITE	UN2590	9	III

Both belong to hazard Class 9. Blue or Brown asbestos is more hazardous and it has a packing group of II. White asbestos is less hazardous and it has a packing group of III.

Blue or brown asbestos cannot be shipped in a passenger carrying road or rail vehicle. The maximum net quantity of White Asbestos that can be transported in a passenger vehicle is 200 kg.

The TDG Regulations do not apply to a limited quantity of dangerous goods in transport on a road or rail vehicle, if all of the following conditions are met (Refer to Section 1.17 for a full explanation of the Limited Quantity exemption).

- The dangerous goods are in one or more means of containment designed, constructed, filled, closed, secured and maintained so that under normal conditions of transport, including handling, there will be no accidental release of the dangerous goods that could endanger public safety; and
- Each means of containment has a gross mass less than or equal to 30 kg. Blue or brown asbestos is 1 kg or less in mass per package and white asbestos is 5 kg or less in mass per package.
- The means of containment is marked on one side, other than the side on which it is intended to rest or to be stacked, with the words "Limited Quantity" or "Ltd. Qty." or "Consumer Commodity" and the words are visible and legible and displayed on a contrasting background. The words must also be marked on the outside if the package is inside another means of containment.

- Accumulation of the limited quantity packages is permitted. However, if the gross mass of the total shipment is over 500 kg; it must have a Dangerous Goods Shipping Document (see next page), that includes the words “Limited Quantity”, “Ltd. Qty” or “Consumer Commodity.” in it.

DOCUMENTATION

According to Alberta Environment, Pesticide and Waste Branch, shipping waste asbestos does not require a Provincial Waste Manifest as long as the following conditions are met:

- The waste asbestos is in double bags, well-covered and transported according to the TDG Regulations; and
- The landfill site that the waste is shipped to has been given notification about the shipment and has agreed to receive it.

It is the responsibility of the consignor to prepare a proper shipping document when offering dangerous goods for transportation (Section 3.1). The document is similar to a standard bill of lading but must contain information needed to describe the dangerous goods. The shipping document is handed over to the initial carrier and must accompany the consignment throughout its journey. The consignor and each carrier that transported shall retain a copy of the shipping document for a period of two years (Section 3.11). The following is the minimum required information which must appear on a shipping document:

Shipping Document Information	When Required	Where in The Regulations
Date	Always	3.5(1)(b)
Name and address of consignor	Always	3.5(1)(a)
Description of goods in the following order		3.5(1)(c)
a. Shipping name	Always	3.5(1)(c)(i)
b. Primary classification	Always	3.5(1)(c)(ii)
c. Subsidiary classifications	If Any	3.5(1)(c)(iv)
d. UN number	Always	3.5(1)(c)(v)
e. Packing group (none for compressed gases)	If Any	3.5(1)(c)(vi)
The quantity in the International System of Units (SI) ¹	Always	3.5(1)(d)
The number of containers ¹	For dangerous goods in small containers requiring safety labels	3.5(1)(e)

Shipping Document Information	When Required	Where in The Regulations
The words "24-Hour Number" followed by a telephone number where the consignor can be easily reached ²	Always	3.5(1)(f)

Note:

1. If the quantity of dangerous goods or the number of small means of containment changes during transport, the carrier must show on the shipping document or on a document attached to the shipping document the change in the quantity of dangerous goods or the number of small containers [Section 3.5(5)].
2. A consignor can also use the telephone number of an agency that is competent to give the technical information on the shipment. For example, it is possible to use CANUTEC as a source of technical information provided that the consignor has received permission in writing from CANUTEC [Section 3.5(2)].

SAFETY MARKS

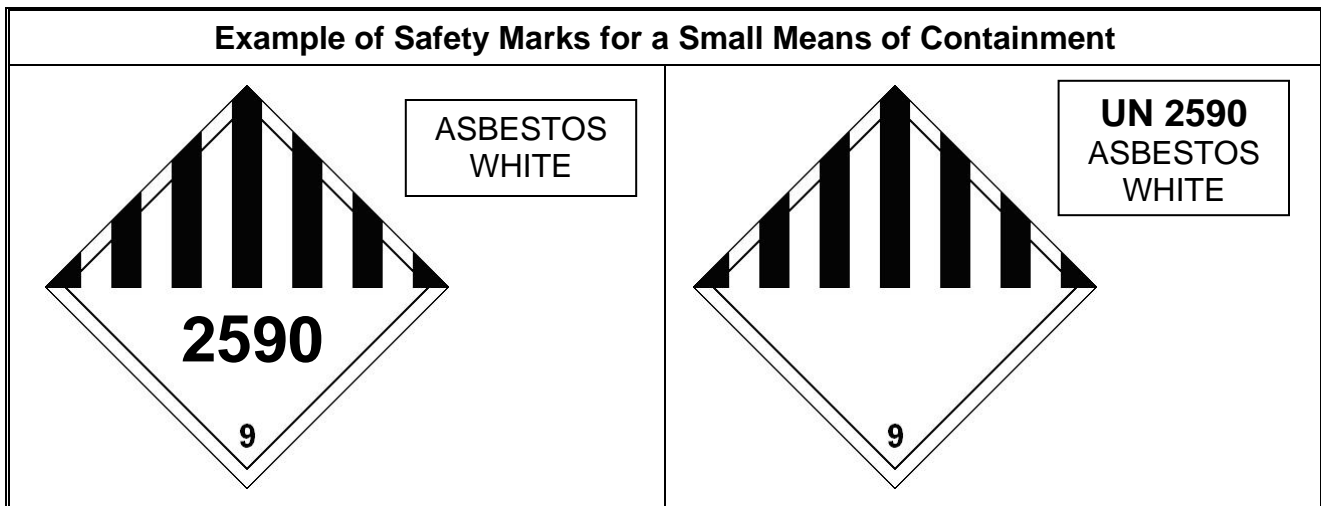
Safety marks are labels, placards, UN numbers and package markings. They are described in Part 4 of the TDG Regulations. The consignor is responsible for displaying safety marks on all means of containment carrying dangerous goods (Section 4.4).

The carrier is responsible for making sure that the safety marks remain displayed during transport. The carrier is also responsible for removing or changing the safety marks if the requirements for dangerous goods safety marks change during transport (Section 4.5).

Small Means of Containment

A small means of containment has a capacity of 450 l or less. A small container must display the dangerous goods label(s), the shipping name and the UN number of the product (Sections 4.10 to 4.12). The label is 100 mm on each side. If the container is too small or it has an irregular shape, the label can be reduced in size up to a dimension of 30 mm on each side [Section 4.7(2)].

The UN number for a dangerous goods label can be placed next to the label as shown below [Section 4.8(1)(b)].



Large Means of Containment

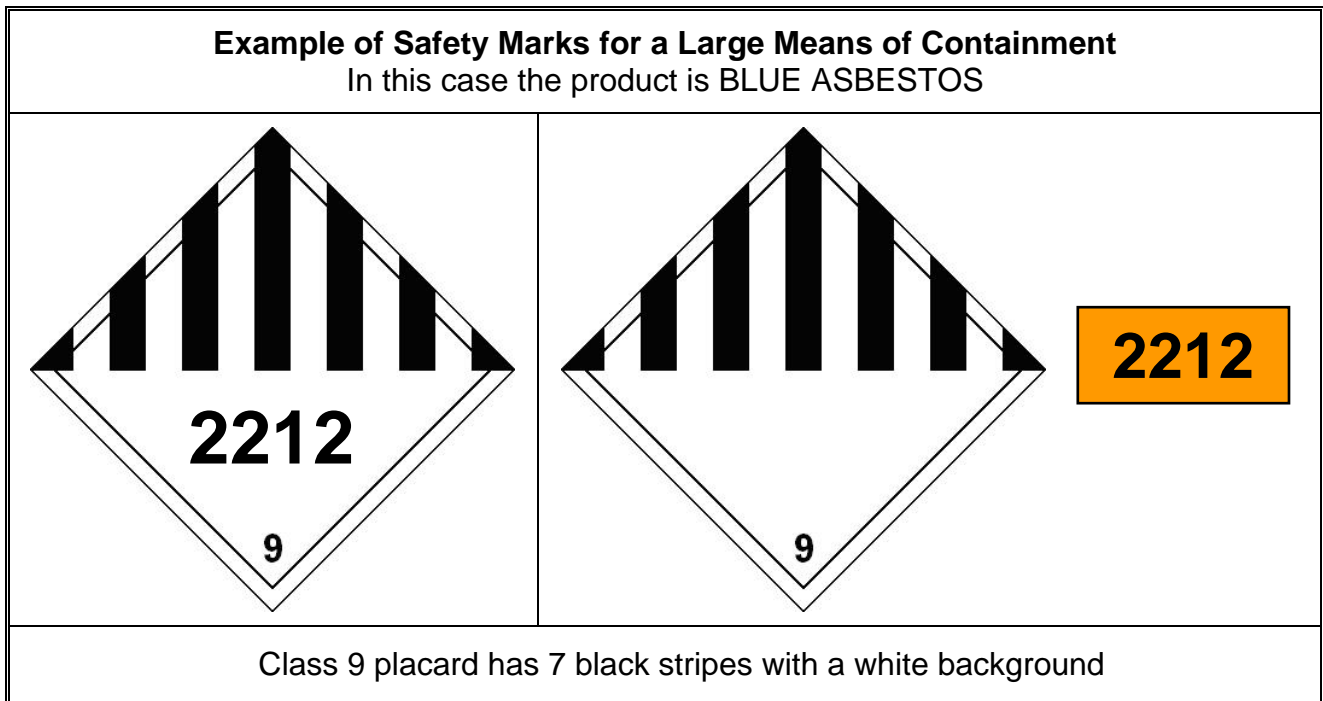
Placards are larger safety marks with 250 mm sides. A large means of containment has a capacity greater than 450 l and it can be a container such as a bulk tank. According to Section 4.15(1) a large means of containment requires placards representing the primary classification if the dangerous goods have a total gross mass greater than 500 kg.

If dangerous goods are in a means of containment that is inside a large means of containment and a placard or UN number is required to be displayed but that placard or UN number is not visible from outside the large means of containment, the placard or UN number must also be displayed on the large means of containment [Section 4.15 (2)].

The placard must be displayed on each side and each end of a large means of containment, except that the placard may be displayed on

- a) a frame permanently connected to the large means of containment, such as a truck frame or a support frame of the means of containment, if the resulting positions of the placards and any associated UN numbers are equivalent to positions on each side and each end of the large means of containment; or
- b) the front of a truck, instead of on the leading end of a trailer unit of the truck. The trailer unit of a truck includes a tank [Section 4.15 (3)].

The UN number of the dangerous goods being transported must appear on the placard or be displayed on an orange panel next to the placard. The letters "UN" are always omitted [Section 4.8(2)].



TRAINING

Unless there is an exemption under the TDG Regulations, anyone who handles, offers for transport or transports dangerous goods must have a valid Dangerous Goods Training Certificate or must be under the direct supervision of a trained person (Section 6.1).

A person is adequately trained if the person has sound knowledge of the topics listed in Section 6.2 of the TDG Regulations that relate directly to the person's duties.

The employer issues a training certificate when he/she has reasonable grounds to believe that an employee possesses adequate training. Self-employed people can issue training certificates for themselves. The employer must keep a record of the training that the employee has received and a copy of his/her training certificate (Section 6.6). The training certificate must be immediately presented to an inspector who requests for it (Section 6.8).

REPORTING REQUIREMENTS

In case of an accidental release or an imminent accidental release of dangerous goods, the person who has possession of the dangerous goods must report immediately to the local police and the provincial authority at 1-800-272-9600. In the case of asbestos, an immediate report is required when there is **any release of 25 kg or more** (Section 8.1). For details of reporting requirements, consult Part 8 of the TDG Regulations or call the Co-ordination and Information Centre at 1-800-272-9600 and ask for the bulletin entitled 'Dangerous Goods Reporting Requirements'.

DANGEROUS GOODS SHIPPING DOCUMENT FOR ROAD TRANSPORT

DESTINATION (City-Town) Name: Address:			CONSIGNOR Name: Address:			
Name of Carrier	Prepaid <input type="checkbox"/>	Collect <input type="checkbox"/>	Transport Unit Number			
Point of Origin			Shipping Date	Shipper's No.		
REGULATED DANGEROUS GOODS			24-Hour Number:			
			ERAP Reference _____ and Telephone Number _____			
Shipping Name	Primary Class	Subsidiary Class	UN Number	Packing Group	Quantity	Packages Requiring Labels
This is to certify that the above named articles are properly classified, described, packaged, marked and labelled and are in proper condition for transportation according to the <i>Transportation of Dangerous Goods Regulations</i> .						
Special Instructions						
NON-REGULATED GOODS						
Packages	Description of Articles			Weight		
Received in apparent good order				_____ Consignee Signature		_____ Shipper's Signature
Received in Apparent Good Order	_____ Driver's Signature			_____ Driver's No.		

Please note that this sample shipping document contains some information that is not required in the TDG Regulations. The additional information reflects current industry practices.